

THIS OFFERING IS AVAILABLE ONLY TO INVESTORS WHO ARE EITHER (A) NON-U.S. PERSONS OR ADDRESSEES OUTSIDE OF THE UNITED STATES OR (B) QUALIFIED INSTITUTIONAL BUYERS (“QIB”) PURSUANT TO RULE 144A OF THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”) THAT ARE ALSO QUALIFIED PURCHASERS (“QPs”) WITHIN THE MEANING OF SECTION 2(A)(51) OF THE INVESTMENT COMPANY ACT OF 1940, AS AMENDED (THE “INVESTMENT COMPANY ACT”).

IMPORTANT: You must read the following before continuing. The following applies to the Offering Memorandum following this page (the “Offering Memorandum”), and you are therefore advised to read this carefully before reading, accessing or making any other use of the Offering Memorandum. In accessing the Offering Memorandum, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SECURITIES IN THE UNITED STATES OR ANY OTHER JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES REFERRED TO IN THE FOLLOWING OFFERING MEMORANDUM HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES AND THE ISSUER IS NOT AND WILL NOT BE REGISTERED UNDER THE INVESTMENT COMPANY ACT AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ANY APPLICABLE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES.

THE FOLLOWING OFFERING MEMORANDUM MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER, AND IN PARTICULAR, MAY NOT BE FORWARDED TO ANY PERSON IN THE UNITED STATES EXCEPT PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORIZED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS.

CONFIRMATION OF YOUR REPRESENTATION: IN ORDER TO BE ELIGIBLE TO VIEW THE OFFERING MEMORANDUM, INVESTORS MUST COMPLY WITH THE FOLLOWING PROVISIONS. YOU HAVE BEEN SENT THIS DOCUMENT AT YOUR REQUEST AND ON THE BASIS THAT YOU HAVE CONFIRMED TO DBS BANK LTD., CITIGROUP GLOBAL MARKETS SINGAPORE PTE. LTD., UBS AG SINGAPORE BRANCH, MUFG SECURITIES ASIA (SINGAPORE) LIMITED AND OVERSEA-CHINESE BANKING CORPORATION LIMITED (TOGETHER, THE “INITIAL PURCHASERS”) THAT YOU (1) EITHER ARE A NON-U.S. PERSON OUTSIDE THE UNITED STATES (AS DEFINED IN REGULATION S UNDER THE SECURITIES ACT (“REGULATION S”)) OR YOU ARE A QIB PURSUANT TO RULE 144A OF THE SECURITIES ACT AND ALSO A QP UNDER THE INVESTMENT COMPANY ACT AND, TO THE EXTENT THAT YOU PURCHASE THE SECURITIES DESCRIBED IN THE FOLLOWING OFFERING MEMORANDUM, YOU WILL BE DOING SO EITHER IN AN OFFSHORE TRANSACTION (AS DEFINED IN REGULATION S) IN COMPLIANCE WITH REGULATION S OR PURSUANT TO RULE 144A OF THE SECURITIES ACT; AND (2) CONSENT TO DELIVERY OF THE FOLLOWING OFFERING MEMORANDUM AND ANY AMENDMENTS OR SUPPLEMENTS THERETO BY ELECTRONIC TRANSMISSION.

You are reminded that this Offering Memorandum has been delivered to you on the basis that you are a person into whose possession this Offering Memorandum may lawfully be delivered in accordance with the laws of the jurisdiction in which you are located and you may not, nor are you authorized to, deliver this Offering Memorandum to any other person. If this is not the case, you must return this Offering Memorandum to us immediately. You may not, nor are you authorized to, deliver or disclose the contents of this Offering Memorandum to any other person.

The materials relating to the offering do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law. If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Initial Purchasers or any of their respective affiliates is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the Initial Purchasers or such affiliate on behalf of PT Adaro Indonesia (the “Issuer” or “Adaro Indonesia”) and PT Adaro Energy Tbk (the “Parent Guarantor,” “Group,” “Adaro Energy,” “we,” “us,” or “our”).

The Offering Memorandum has been sent to you in electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently none of the Issuer, Parent Guarantor, Initial Purchasers or any person who controls any of them or any of their respective commissioners, directors, officers, employees, agents or affiliates accepts any liability or responsibility whatsoever in respect of any discrepancies between the Offering Memorandum distributed to you in electronic format and the hard copy version available to you on request from the Initial Purchasers.

PT Adaro Indonesia*(established in the Republic of Indonesia with limited liability)***US\$750,000,000 4.25 % Guaranteed Senior Notes due 2024****Unconditionally and irrevocably guaranteed by****PT Adaro Energy Tbk***(established in the Republic of Indonesia with limited liability)*

The notes (the “Notes”) will be issued by PT Adaro Indonesia (the “Issuer” or “Adaro Indonesia”). The Notes will mature on October 31, 2024. Interest will accrue from October 31, 2019, and be payable semi-annually in arrears on April 30 and October 31 of each year, commencing on April 30, 2020. The Notes will be unconditionally and irrevocably guaranteed (the “Guarantee”) by the Issuer’s ultimate parent company, PT Adaro Energy Tbk (the “Parent Guarantor,” “Adaro Energy,” “we,” “us,” or “our”).

The Issuer may redeem up to 35% of the Notes using the proceeds of certain equity offerings of the Issuer or the Parent Guarantor completed before October 31, 2022. The Issuer may redeem some or all of the Notes at any time on or after October 31, 2022 at the redemption prices set forth in this Offering Memorandum. Additionally, the Issuer may redeem some or all of the Notes prior to October 31, 2022, at a price equal to 100% of the principal amount of the notes plus a “make-whole” premium and accrued and unpaid interest, if any, to the date of redemption. Upon the occurrence of certain events constituting a Change of Control (as defined herein), the Issuer must offer to purchase the Notes at a price equal to 101% of their principal amount plus unpaid and accrued interest. The Issuer may redeem all but not some of the Notes at the principal amount plus accrued interest upon a change in tax law increasing the rate of Indonesian withholding taxes on amounts payable under the Notes or any guarantees provided by the Parent Guarantor or future Subsidiary Guarantors.

The Notes and the Guarantee will be unsecured and rank equally with all existing and future senior debt of the Issuer and the Parent Guarantor, respectively. The Notes and the Guarantee will, respectively, be effectively subordinated to all of the Issuer’s and Parent Guarantor’s existing and future secured debt to the extent of the assets securing such debt. The Guarantee will be structurally subordinated to all liabilities (including trade payables) of all of the Parent Guarantor’s subsidiaries (other than the Issuer), which are not initially issuing guarantees. The Parent Guarantor may in the future designate its subsidiaries to guarantee the Notes. See “Description of Notes.”

See “Risk Factors” beginning on page 18 for a discussion of certain risks that you should consider in connection with an investment in the Notes.

The Notes are expected to be rated “Ba1” by Moody’s and “BBB-” by Fitch. A security rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, reduction, or withdrawal at any time by the assigning rating agency.

Price: 98.892 %

plus accrued interest, if any, from October 31, 2019

The Notes and the Guarantee have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the “Securities Act”), or the securities laws of any other jurisdiction and the Issuer is not and will not be registered under the U.S. Investment Company Act of 1940, as amended (the “Investment Company Act”). The Notes may not be offered or sold within the United States (as defined under Regulation S under the Securities Act), except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Accordingly, the Notes are being offered and sold only (1) to qualified institutional buyers in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A under the Securities Act that are also “qualified purchasers” as defined in Section 2(a)(51) of the Investment Company Act (“qualified purchasers”), and (2) to non-US persons outside the United States in offshore transactions in compliance with Regulation S under the Securities Act. See “Plan of Distribution” and “Transfer Restrictions” for additional information about eligible offerees and transfer restrictions for a description of the Volcker Rule implications of this offering, see “Volcker Rule”. This offering does not constitute a public offering in Indonesia under Law No. 8 of 1995 on Capital Market and its implementing regulations. The Notes may not be offered or sold in Indonesia or to Indonesian citizens, wherever they are domiciled, or to Indonesian residents, in a manner which constitutes a public offer under Law No. 8 of 1995 on Capital Market and its implementing regulations.

Approval in-principle has been received for the listing and quotation of the Notes on the Singapore Exchange Securities Trading Limited (the “SGX-ST”). The SGX-ST assumes no responsibility for the correctness of any of the statements made or opinions expressed or reports contained in this Offering Memorandum. Approval in-principle for admission to the Official List of, and quotation of, the Notes on SGX-ST is not to be taken as an indication of the merits of the Issuer and its associated companies, or the Notes. The Notes will be traded on the SGX-ST in a minimum board lot size of US\$250,000 as long as any of the Notes are listed on the SGX-ST and the rules of the SGX-ST so require. Currently, there is no market for the Notes.

This Offering Memorandum has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this Offering Memorandum and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes may not be circulated or distributed, nor may the Notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to any persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

It is expected that the Notes will be ready for delivery in book-entry form only through the Depository Trust Company (the “DTC”) and its participants, on or about October 31, 2019. See “Plan of Distribution.”

Joint Global Coordinators

DBS Bank Ltd.**Citigroup****UBS**

Joint Bookrunners

DBS Bank Ltd.**Citigroup****UBS****MUFG****OCBC Bank**

Offering Memorandum, dated October 24, 2019

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NOTICE TO INVESTORS

This Offering Memorandum is being furnished by us on a confidential basis in connection with an offering exempt from the registration requirements under the Securities Act, solely for the purpose of enabling a prospective investor to consider the purchase of the Notes. We have prepared this Offering Memorandum solely for use in connection with the proposed offering of the Notes described herein. This Offering Memorandum is personal to each offeree and does not constitute an offer to any other person or to the public generally to subscribe for or otherwise acquire the Notes. Distribution of this Offering Memorandum to any person other than the prospective investor and any person retained to advise such prospective investor with respect to its purchase is unauthorized, and any disclosure of any of its contents, without our prior written consent, is prohibited. Each prospective investor, by accepting delivery of this Offering Memorandum, agrees to the foregoing and agrees to make no photocopies of this Offering Memorandum or any documents referred to herein.

No person has been authorized to give any information or to make any representation not contained in this Offering Memorandum in connection with the offering of the Notes, and, if given or made, such other information or representation must not be relied upon as having been authorized by us, the Initial Purchasers (defined below), The Bank of New York Mellon as trustee (the “Trustee, the Paying Agent and the Registrar (the Paying Agent and the Registrar, collectively, the “Agents”)) or any other person.

Each of DBS Bank Ltd., Citigroup Global Markets Singapore Pte. Ltd., UBS AG Singapore Branch, MUFG Securities Asia (Singapore) Limited and Oversea-Chinese Banking Corporation Limited (each, an “Initial Purchaser” and together, the “Initial Purchasers”), the Trustee and the Agents make no representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this Offering Memorandum. Nothing contained in this Offering Memorandum is, or should be relied upon as, a promise or representation by the Initial Purchasers, the Trustee or the Agents as to the past or future. The Initial Purchasers, the Trustee and the Agents assume no responsibility for the accuracy or completeness of any of the information contained herein (financial, legal or otherwise). The information contained in this Offering Memorandum is as of the date of this Offering Memorandum and is subject to change, completion or amendment without notice. Neither the delivery of this Offering Memorandum at any time nor the offer, sale or delivery of any Note shall, under any circumstances, create any implication that there has been no change in the information set forth in this Offering Memorandum or in our affairs since the date of this Offering Memorandum.

This Offering Memorandum contains summaries believed to be accurate with respect to certain documents, but reference is made to the actual documents for complete information. All such summaries are qualified in their entirety by such reference.

The Notes are subject to restrictions on transferability and resale and may not be transferred or resold except as permitted under the Securities Act and the applicable state securities laws pursuant to registration or exemption therefrom. As a prospective purchaser, you should be aware that you may be required to bear the financial risks of this investment for an indefinite period of time. Please refer to the sections entitled “Plan of Distribution” and “Transfer Restrictions.”

This Offering Memorandum does not constitute an offer to sell or a solicitation of an offer to buy any of the Notes to any person in any jurisdiction where it is unlawful to make such an offer or solicitation. Except as mentioned under “Plan of Distribution,” no action has been or will be taken to permit a public offering of the Notes in any jurisdiction where action would be required for that purpose. The Notes may not be offered or sold, directly or indirectly, and this Offering Memorandum may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction.

Each prospective investor must comply with all applicable laws and regulations in force in any jurisdiction in which it purchases, offers or sells the Notes or possesses or distributes this Offering Memorandum and must obtain any consent, approval or permission required by it for the purchase, offer or sale by it of the Notes under the laws and regulations in force in any jurisdiction to which it is subject or in which it makes such purchases, offers or sales, and neither we, Adaro Indonesia nor the Initial Purchasers nor the Trustee nor the Agents nor any of our or their respective representatives shall have any responsibility therefor.

In making an investment decision, prospective investors must rely on their own examination of us and the terms of the offering, including the merits and risks involved. Prospective investors should not construe anything in this Offering Memorandum as legal, business or tax advice. Each prospective investor should consult its own advisors as needed to make its investment decision and to determine whether it is legally permitted to purchase the Notes under applicable legal investment or similar laws or regulations.

In connection with the issue and distribution of the Notes, the Initial Purchasers or any person acting for them may, subject to applicable law, over-allot or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail for a limited period of time. However, the Initial Purchasers or any person acting for them is under no obligation to do so. Furthermore, such stabilization, if commenced, may be discontinued at any time and must be brought to an end after a limited period.

NEITHER THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION NOR ANY OTHER REGULATORY AUTHORITY, HAS APPROVED OR DISAPPROVED THE NOTES NOR HAVE ANY OF THE FOREGOING AUTHORITIES PASSED UPON OR ENDORSED THE MERITS OF THIS OFFERING OR THE ACCURACY OR ADEQUACY OF THIS OFFERING MEMORANDUM. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

NOTICE TO INVESTORS IN THE EUROPEAN ECONOMIC AREA

Solely for the purposes of each manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in Directive 2014/65/EU (as amended, "MiFID II"); and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a "distributor") should take into consideration the manufacturers' target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturers' target market assessment) and determining appropriate distribution channels.

This Offering Memorandum has been prepared on the basis that any offer of Notes in any Member State of the European Economic Area will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of Notes. The expression "Prospectus Directive" means Directive 2003/71/EC (as amended or superseded, including by Regulation (EU) 2017/ 1129 (effective July 21, 2019)) and includes any relevant implementing measure in the Member State.

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area. For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU ("MiFID II"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in the Prospectus Directive. Consequently no key information document required by Regulation (EU) 1286/2014 (the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the European Economic Area has been prepared and therefore offering or selling the Notes or otherwise making them available to any retail investor in the European Economic Area may be unlawful under the PRIIPs Regulation.

NOTICE TO PROSPECTIVE INVESTORS IN CANADA

The Notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of

the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the Notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws. Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor. Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

NOTIFICATION UNDER SECTION 309B(1)(c) OF THE SFA

In connection with Section 309B of the SFA and the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore (the "CMP Regulations 2018"), the Issuer has determined the classification of the Notes as prescribed capital markets products (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAAN16: Notice on Recommendations on Investment Products).

NOTICE TO INVESTORS IN INDONESIA

The Notes have not been offered or sold and will not be offered or sold in Indonesia or to any Indonesian nationals, corporations or residents, including by way of invitation, offering or advertisement, and this Offering Memorandum and any other offering material relating to the Notes has not been distributed, and will not be distributed, in Indonesia or to any Indonesian nationals, corporations or residents in a manner which would constitute a public offering in Indonesia under Law No. 8 of 1995 on Capital Markets. The Indonesian Financial Service Authority (Otoritas Jasa Keuangan or "OJK") has not reviewed or declared its approval or disapproval of the issue of the Notes, nor has it made any determination as to the accuracy or adequacy of this Offering Memorandum. Any statement to the contrary is a violation of Indonesian law.

VOLCKER RULE

Final regulations implementing Section 619 of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (commonly known as the "Volcker Rule") became effective in July 2015. Among other things, the Volcker Rule restricts "banking entities" from the sponsorship of or the acquisition of "ownership interests" in "covered funds." The definition of "covered fund" in the Volcker Rule includes (generally) any entity that would be an investment company under the Investment Company Act but for the exception provided by Section 3(c)(1) or 3(c)(7) thereunder. Although there may be other bases or exceptions under which the Issuer is not required to register under the Investment Company Act, the Issuer is offering the notes in a manner intended to preserve the availability of the exception provided by Section 3(c)(7), and therefore the Issuer may be considered a "covered fund" for purposes of the Volcker Rule. Each prospective investor that is a banking entity should consult with its advisors regarding the Volcker Rule before making an investment in the notes.

AVAILABLE INFORMATION

To permit compliance with Rule 144A in connection with resales of the Notes, we are required to furnish upon request of a holder of a Note and a prospective purchaser designated by such holder the information

required to be delivered under Rule 144A(d)(4) if, at the time of such request, we are not subject to the periodic reporting requirements of Section 13 or Section 15(d) of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”) nor exempt from such reporting requirements pursuant to Rule 12g3-2(b) thereunder.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This Offering Memorandum contains “forward-looking” statements that relate to future events, which are, by their nature, subject to significant risks and uncertainties. All statements other than statements of historical fact contained in this Offering Memorandum, including, without limitation, those regarding our future financial position and results of operations, strategy, plans, objectives, goals and targets, future developments in the markets where they participate or are seeking to participate, and any statements preceded by, followed by or that include the words “believe,” “expect,” “aim,” “intend,” “will,” “may,” “project,” “estimate,” “anticipate,” “predict,” “seek,” “should” or similar expressions, are forward-looking statements. The future events referred to in these forward-looking statements involve known and unknown risks, uncertainties and other factors, some of which are beyond our control, which may cause the actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. These forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future and are not a guarantee of future performance. Important factors that could cause the actual results, performance or achievements to differ materially from those in the forward-looking statements include:

- the price of coal, including factors influencing the price of coal, such as regional and global supply and demand;
- Adaro Indonesia’s ability to extend the Coal Cooperation Agreement (as defined herein);
- the effects of, and changes in, Indonesian laws, regulations or regulatory policy related to the mining industry and generally;
- competition in the geographic and business areas in which we conduct our operations;
- changes in taxation or accounting standards or practices;
- the ability to maintain or increase market share for coal products while controlling expenses;
- reductions of purchases by major customers;
- the ability to renew sales contracts;
- credit and performance risks associated with customers, suppliers, trading partners and banks and other financial counterparties;
- acquisitions, divestitures and various business opportunities that we may pursue;
- technological changes that affect the extraction, preparation, processing, shipping or combustion of coal;
- replacement of coal reserves;
- fluctuations in levels of electricity consumption;
- transportation availability, performance and costs, including demurrage;

- availability, timing of delivery and costs of key supplies, capital equipment or commodities such as fuel and explosives;
- geologic, equipment and operational risks inherent to mining;
- impact of weather on demand, production and transportation;
- market share of electricity generation using coal-fired power plants;
- market share of manufacturing and construction sectors using steel;
- changes or volatility in inflation, interest rates and foreign exchange rates;
- the effects of international and domestic political events on our businesses;
- accidents, natural disasters or outbreaks of infectious diseases in our market areas;
- the ability of third parties to perform in accordance with contractual terms and specifications; and
- our success at managing the risks of the aforementioned factors.

This list of important factors is not exhaustive. Additional factors that could cause our actual results, performance or achievements to differ materially include those discussed under “Risk Factors.” When relying on forward-looking statements, you should carefully consider the foregoing factors and other uncertainties and events, especially in light of the political, economic, social and legal environment in which we and Adaro Indonesia operate. Such forward-looking statements speak only as of the date on which they are made. Accordingly, we undertake no obligation to update or revise any of them, whether as a result of new information, future events or otherwise. We make no representation, warranty or prediction that the results anticipated by such forward-looking statements will be achieved, and such forward-looking statements represent, in each case, only one of many possible scenarios and should not be viewed as the most likely or standard scenario. Accordingly, you should not place undue reliance on any forward-looking statements.

PRESENTATION OF FINANCIAL INFORMATION

The financial information included in this Offering Memorandum has been derived from the consolidated financial statements of the Parent Guarantor and its subsidiaries (the “Group”). Unless otherwise indicated, financial information in this Offering Memorandum has been prepared in accordance with Indonesian Financial Accounting Standards (“Indonesian FAS”), which differ in certain respects from generally accepted accounting principles in the United States (“U.S. GAAP”). For a summary of certain differences between Indonesian FAS and U.S. GAAP, see “Summary of Certain Differences Between Indonesian FAS and U.S. GAAP.”

Our consolidated financial statements are presented in U.S. dollars.

Unless otherwise indicated or otherwise required by the context, all references in this Offering Memorandum to “Rupiah” or “Rp” are to the lawful currency of Indonesia. References to “U.S. dollars” or “US\$” are to United States dollars, the lawful currency of the United States of America. Rounding adjustments have been made in calculating some of the financial information included in this Offering Memorandum. As a result, numerical figures shown as totals in some tables may not be exact arithmetic aggregations of the figures that precede them.

NON-GAAP FINANCIAL MEASURES

See “Summary Financial Information and Other Data — Adaro Energy — Non-GAAP Financial Measures,” “Summary Financial Information and Other Data — PT Adaro Indonesia Key Financial and Operating Metrics — Non-GAAP Financial Measures” and “Summary Financial Information and Other Data — SIS Key Financial and Operating Metrics” for a description of certain non-GAAP financial measures used in this Offering Memorandum such as Operational EBITDA, Adaro Indonesia Operational EBITDA in relation to Adaro Indonesia and SIS Operational EBITDA in relation to PT Saptaindra Sejati (“SIS”), Operational EBITDA presented in this Offering Memorandum is a supplemental measure of performance that is not required by, or presented in accordance with, Indonesian FAS or U.S. GAAP.

We calculate Operational EBITDA by adding depreciation and amortization, tax expense, finance costs, foreign exchange loss, net and losses from non-operational transactions (if any) to profit for the year or period and deducting finance income, foreign exchange gain, net and gains from non-operational transactions (if any) from profit for the year or period. Adaro Indonesia and SIS calculate their respective Operational EBITDAs (i.e., Adaro Indonesia Operational EBITDA and SIS Operational EBITDA) in the same manner.

Operational EBITDA is not a standard measure under Indonesian FAS despite being a widely used financial indicator of a company’s ability to service and incur debt. Operational EBITDA should not be considered in isolation or construed as an alternative to cash flows, profit for the year/period or any other measure of performance or as an indicator of operating performance, liquidity, profitability or cash flows generated by operating, investing or financing activities, among other reasons, because it does not account for taxes, interest expense, depreciation or other non-operating cash expense. In evaluating Operational EBITDA, investors should consider, among other things, the components of Operational EBITDA such as revenues and operating expenses and the amount by which Operational EBITDA exceeds capital expenditures and other charges. Operational EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. You should not compare Operational EBITDA to similarly titled measures presented by other companies because not all companies use the same definition.

Operational EBITDA and other non-GAAP financial measures derived from it have limitations as analytical tools, and you should not consider them in isolation from, or as a substitute for, your own analysis of the our or the Issuer’s financial condition or results of operations, as reported under Indonesian FAS. Non-GAAP financial measures are not standardized terms. Because of these limitations, Operational EBITDA should not be considered as a measure of discretionary cash available to us or the Issuer to invest in the growth of our businesses. Operational EBITDA as presented in this Offering Memorandum is calculated differently from “Consolidated EBITDA” as defined in the indenture governing the Notes.

INDUSTRY AND MARKET DATA

This Offering Memorandum includes market share and industry data and forecasts that we obtained from industry publications and surveys, reports of governmental agencies and internal company surveys. IHS Global Pte Ltd (“IHS Markit”) was the primary source for third-party industry data and forecasts and prepared a report to assist us in preparing this Offering Memorandum. Industry publications and surveys and forecasts generally state that the information contained therein has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of included information. While we have taken reasonable actions to ensure that the information is extracted accurately and in its proper context, we have not independently verified any of the data from third-party sources or ascertained the underlying economic assumptions relied upon therein.

COAL RESERVE AND RESOURCES ESTIMATES

We report our coal reserves and resources in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition (the “2012 JORC Code”), prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC). The reserves of PT Maruwai Coal are reported in accordance with the earlier 2004 JORC Code, which was in effect at the time the reserves were estimated.

Under the 2012 JORC Code, the term “coal resource” is defined as a concentration or occurrence of coal of intrinsic economic interest in or on the earth’s crust in such form and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a coal resource are known, estimated or interpreted from specific geological evidence and knowledge. Coal resources are subdivided, in order of increasing geological confidence, into “inferred,” “indicated” and “measured” categories.

The term “coal reserve” is defined in the 2012 JORC Code as the economically mineable part of a measured and/or indicated coal resource. It includes diluting materials and allowances for losses which may occur when coal is mined. Appropriate assessments, which may include feasibility studies, have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Coal reserves are subdivided in order of increasing confidence into “probable coal reserves” and “proved coal reserves.” The choice of the appropriate category of coal reserve is determined primarily by the relevant level of confidence in the coal resource and, after considering any uncertainties in the modifying factors, pursuant to the 2012 JORC Code, must be made by the “competent person” or “competent persons” preparing the reserve statement.

Under the 2012 JORC Code, the term “coal reserves” represents the combination of proved and probable coal reserves. Coal resources are reported inclusive of coal reserves (that is, coal reserves are not additional to coal resources). Totals of coal reserves and coal resources have been rounded herein to reflect the order of accuracy of estimates.

The term “marketable coal reserves,” representing beneficiated or otherwise enhanced coal product, may, pursuant to the 2012 JORC Code, be used in public reports for companies in conjunction with, but not instead of, reports of coal reserves. The basis of the predicted yield to achieve marketable coal reserves should be stated.

Adaro Indonesia’s reserves and resources presented in this Offering Memorandum are based on Adaro Indonesia’s December 31, 2017 coal reserves and resources estimate by Adaro Indonesia’s Geology and Mining Department, which have been extracted from Adaro Indonesia’s 2017 JORC report. RPMGlobal Mining Consultants, an independent mining consultant, has reviewed these reserve and resource estimates for Adaro Indonesia’s assets and their Independent Technical Review dated as of September 27, 2019 of Adaro Indonesia’s Coal Reserves and Resources as of December 31, 2017 (the “RPM Report”) attached as Appendix A to this Offering Memorandum. See “Independent Mining Expert.” Furthermore, this Offering Memorandum presents Adaro Indonesia’s Coal Reserves and Resources as of December 31, 2017, after taking into account 2018 coal production. The Competent Person Reserves is Rifan Ahda, MAusIMM / CPI who is a full time employee of PT Adaro Jasabara Indonesia. The Competent Person Resources (“CP”) is Joseph Crisostomo MAusIMM, of PT Adaro Jasabara Indonesia.

Our other reserves and resources as presented in this Offering Memorandum have been extracted from our annual report for the year ended December 31, 2018 and have been prepared in each case by a competent person, generally employed by one of our subsidiaries.

- With respect to the Balangan Coal Companies: (i) The Competent Person Reserves is Rifan Ahda, MAusIMM / CPI who is a full time employee of PT Adaro Jasabara Indonesia; (ii) Resources at PT Paramitha Cipta Sarana (“PCS”) were estimated in March 2016 while Resources at PT Semesta Centramas (“SCM”) and PT Laskar Semesta Alam (“LSA”) were estimated as at December 31, 2018

in accordance with 2012 JORC Code subject to the use of the Australian Coal Guidelines 2014. The Competent Person Resources was Joseph Crisostomo MAusIMM, of PT Adaro Jasabara Indonesia.

- With respect to PT Mustika Indah Permai (“MIP”) (i) The Competent Person Reserves is Leonard R. Dolby who was a full time Employee of Golders and Associates; (ii) Resources were estimated in November 2013. The Competent Person was John Devon who was a full time employee of Marston & Marston Inc, at that time a Golder & Associates owned company.
- With respect to Adaro MetCoal Companies (“AMC”) (i) The Competent Person Reserves for PT Maruwai Coal was Mark Dannel of MR & SJ Dannel (ii) Resources at AMC’s PT Juloi Coal, PT Kalteng Coal and PT Sumber Barito Coal were estimated as at December 31, 2017 while Resources at PT Lahai Coal and PT Maruwai Coal were estimated as at December 31, 2018. The Competent Person was Mr. Joseph Crisostomo MAusIMM, of PT Adaro Jasabara Indonesia. PT Maruwai Coal Reserves were estimated in 2008 according to the then effective JORC Code (2004). Mine planning to produce a new reserve report based on the updated Resources is currently underway. PT Lahai Coal Resources were estimated as of December 31, 2018.
- With respect to Kestrel Coal Mine (i) Reserves were estimated as at December 1, 2018. Reserves are reported according to the 2012 JORC Code. The Coal Reserve estimate was prepared by Bruce Robertson, B.Eng (Mining), FAusIMM, CP, RPEQ, an employee of MEC Mining Pty Ltd. and a Qualified Person under the 2012 JORC Code. (ii) Resources were estimated as at December 1, 2018. Resources are reported according to the 2012 JORC Code. The Kestrel Coal Mine’s Resources are inclusive of Coal Reserves. The Competent Person was Christopher Speedy MAIG, a consultant working for Encompass Mining Services Pty Ltd.

Estimates of coal reserves, resources, recoveries and operating costs are largely dependent on the interpretation of geological data obtained from drill holes and other sampling techniques, and feasibility studies which derive estimates of operating costs based on anticipated tonnage, expected recovery rates, equipment operating costs and other factors. No assurance can be given that the reserves and resources presented in this Offering Memorandum will be recovered at the quality or yield presented. In addition, investors should not assume that the resource estimates are capable of being directly reclassified as reserves under the 2012 JORC Code. The inclusion of resource estimates should not be regarded as a representation that these amounts can be economically exploited, particularly, inferred resources, and you are cautioned not to place undue reliance on those estimates.

The ability of the mining operator, or any other related business unit, to achieve forward-looking production and economic targets is dependent on numerous factors that are beyond our control and which we cannot fully anticipate. These factors include the site-specific mining and geological conditions, the capabilities of management and employees, availability of funding to properly operate and capitalize the operation, variations in cost elements and market conditions, development and operation of the mine in an efficient manner and others. Any unforeseen changes in the legislation and new industry developments could also substantially alter the performance of any mining operation.

Assumptions Underlying Our Coal Reserve Estimates

We estimate our coal reserves using various assumptions regarding loss and dilution, drilling depth and other geotechnical constraints. Our reserves are sensitive to the cost and revenue assumptions used due to the geological structure of our deposits, which means that, all other factors being the same, if the cost assumption is higher or the price assumption is lower, we estimate lower reserves, and if the cost assumption is lower or the price assumption is higher, we estimate more reserves. Some of our deposits are more sensitive to the cost and revenue assumptions used than others due to the characteristics and geological structure of those deposits. For more information regarding the factors used to estimate Adaro Indonesia’s coal reserves presented in this Offering Memorandum, see the RPM Report attached as Appendix A to this Offering Memorandum.

ENFORCEABILITY OF FOREIGN JUDGMENTS

The Notes and the indenture are governed by the laws of the State of New York. Each of the Issuer and the Parent Guarantor is a limited liability company established and existing in Indonesia, with a substantial portion of their assets in Indonesia. As a result, it may not be possible for investors to effect service of process upon them or such persons outside of Indonesia or within the U.S., or to enforce judgments against it or such persons in courts outside of Indonesia or in the U.S., including judgments obtained in U.S. courts judgments predicated upon the civil liability provisions of the U.S. federal securities laws or the securities laws of any state within the U.S., or upon other bases.

Our Indonesian legal advisor, Hendra Soenardi, has advised that judgments of non-Indonesian courts, including judgments predicated upon the civil liability provisions of the federal securities laws of the U.S. or any states thereof, are not recognized or directly enforceable in Indonesian courts and, as a result, it may not be possible to enforce judgments obtained in non-Indonesian courts against us. To obtain an Indonesian court judgment, a claimant would be required to pursue claims in Indonesian courts on the basis of Indonesian law. A foreign court judgment could be admissible as non-conclusive evidence in a proceeding on the underlying claim in an Indonesian court and may be given such evidentiary weight as the Indonesian court may deem appropriate in its sole discretion. Re-examination of the underlying claim de novo would be required before the Indonesian courts. There can be no assurance that the claims or remedies available under Indonesian laws will be the same or as extensive as those available in other jurisdictions. For more information on these risks, see “Risk Factors — Risks Relating to the Notes and the Guarantee — Enforcing your rights under the Notes or the Guarantee across multiple jurisdictions may prove difficult”; and “— It may be difficult or impossible for noteholders to pursue claims under the Notes or the Guarantee because of the considerable discretion and uncertainty of the Indonesian legal system.”

ENFORCEABILITY OF THE NOTES AND THE GUARANTEE IN INDONESIA

Under the Indonesian Civil Code, a guarantor may waive its right to require the lender to exhaust its legal remedies against the borrower’s assets on a guaranteed obligation prior to the lender exercising its rights under the related guarantee. The Guarantee contains a waiver of this obligation. We have been advised by our Indonesian counsel, Hendra Soenardi, that even though the Guarantee contains such a waiver, a guarantor may nevertheless require that the lender must prove that all available legal remedies against the borrower have in fact been exhausted. Paragraph 1 of Article 1832 of the Indonesian Civil Code stipulates that once a guarantor has waived its rights to require a lender to exhaust its legal remedy against the borrower, such guarantor may no longer claim otherwise. Nevertheless, due to the uncertainty of the outcome of specific legal cases in Indonesia, should the Issuer default on its obligations, there is no assurance that Indonesian courts will not deem our waiver ineffective and instead impose an obligation on the holders of the Notes to pursue all legal remedies against the Issuer before exercising their rights under the Guarantee.

In several court cases in Indonesia, Indonesian companies that have defaulted on debt incurred through offshore financing entities have sued their creditors to, among other things, invalidate their debt obligations and have sought damages from creditors exceeding the original proceeds of the debt issued. In one case, which was subsequently settled, an Indonesian court annulled the transaction documents in a structure involving a guarantee issued by an Indonesian company for debt of an offshore subsidiary. In another case, an Indonesian court declared a loan agreement between an offshore entity and its creditors null and void, awarding damages to the defaulting borrower. The courts’ reports of these decisions do not provide a clear factual basis or legal rationale for the judgments.

In a June 2006 decision (the “June 2006 Decision”), the Indonesian Supreme Court affirmed a lower court judgment that invalidated US\$500 million of notes issued through an offshore offering structure. The decision involved an Indonesian listed company, PT Indah Kiat Pulp & Paper Tbk (“Indah Kiat”), as plaintiff and various parties as the defendants (including the trustee, underwriter and security agent for the issuance of the notes). The notes were issued through a Dutch subsidiary of Indah Kiat and guaranteed by Indah Kiat. The Indonesian courts

accepted Indah Kiat's argument that it acted both as a debtor and as a guarantor of the same debt even though, as established by the facts of the case, the Dutch subsidiary established for the purpose of the issuance of the notes was the issuer of the notes and Indah Kiat was the guarantor of such notes. The Indonesian courts also ruled that the establishment of Indah Kiat's Dutch subsidiary to issue the notes was unlawful as it was intended to avoid Indonesian withholding tax.

The court decided in favor of Indah Kiat, as plaintiff, and ruled that the defendants committed an unlawful act (*perbuatan melawan hukum*), and therefore, the issuance of the notes was declared null, void and unenforceable. Further, in August 2008, the June 2006 Decision was overturned in a civil review (*peninjauan kembali*) (the "August 2008 Decision"). The Indonesian Supreme Court ruled that Indah Kiat had failed to prove that the transaction was an act of manipulation of the law from which Indah Kiat suffered loss. It further stipulated that it was clear that the money borrowed by Indah Kiat from the Dutch subsidiary originated from the issuance of notes, as evidenced in the recital of the relevant loan agreement, and the claim that the whole transaction was a manipulation of the law had no merit. The Indonesian Supreme Court further stated that the security agreements remained valid as long as the underlying agreements were still valid and binding, and that claims arising out of and in connection with the New York law governed agreements in that transaction should be brought to the appropriate court in the state of New York and not in the District Court of Bengkalis, Indonesia.

Based on publicly available information, in a March 2009 decision (the "March 2009 Decision"), the Indonesian Supreme Court refused a civil review petition against a judgment which originated from the District Court of Kuala Tungkal, in South Sumatra, which was upheld by the Indonesian Supreme Court in cassation. This judgment invalidated notes issued by APP International Finance Company B.V. ("APP International"), which were guaranteed by PT Lontar Papyrus Pulp & Paper Industry ("Lontar Papyrus"). Lontar Papyrus' legal arguments in its lower court case were fundamentally similar to those in the earlier cases by Indah Kiat—namely, that, under the notes structure, the plaintiff was acting as both the debtor and guarantor for the same debt and, therefore, the structure was invalid. The Indonesian Supreme Court's refusal to grant a civil review over the lower court's decision effectively affirmed that the lower court's decision to invalidate Lontar Papyrus' obligations under the notes and that the judgment was then final. Lontar Papyrus and Indah Kiat are subsidiaries of Asia Pulp & Paper Company Ltd., and their original court cases against their creditors were filed at approximately the same time. While the lower court decisions in certain of these cases have been ultimately annulled by the Indonesian Supreme Court, as was the case in August 2008 in the Indah Kiat matter, it appears that the Indonesian Supreme Court has taken a contradictory view on the Lontar Papyrus case. The Indonesian Supreme Court's refusal to grant the civil review was based on reasons that the loan agreement between APP International and Lontar Papyrus and the indenture with regard to the issuance of notes required adjustment to observe the prevailing laws and regulations in Indonesia. The Indonesian Supreme Court was also of the view that since Lontar Papyrus had fully paid its debt to APP International under the relevant loan agreement, there was no other legal obligation required to be fulfilled by Lontar Papyrus, whether in its capacity as debtor under the loan agreement or guarantor under the indenture. Further, the Supreme Court was of the view that any claim from the noteholders should be addressed to APP International as the issuer and should be pursued separately. The Indonesian Supreme Court did not consider the fact that APP International had defaulted on its payment obligations to the noteholders and Lontar Papyrus had guaranteed the payment obligation of APP International under the notes. In addition, the Indonesian Supreme Court affirmed the lower court decision which has invalidated all of the transaction documents, including the guarantee.

On January 25, 2011, the Indonesian Supreme Court refused to grant a civil review of a Bengkalis District Court decision which invalidated the agreements and security documents in relation to the US\$500 million notes at issue in the August 2008 Decision, and the Indonesian Supreme Court's decision was signed in September 2011 (the "September 2011 Decision"). The September 2011 Decision was initially brought by a Dutch subsidiary of Indah Kiat at the Bengkalis District Court in Riau. The September 2011 Decision contained the facts and legal claims that are similar to the facts and legal claims previously brought by Indah Kiat in relation to the June 2006 Decision and August 2008 Decision. The Indonesian Supreme Court's refusal to grant a civil review of the lower courts' decision effectively affirmed the Bengkalis District Court's decision and therefore rendered it final.

On December 8, 2014, the supervisory judge in proceedings before the Commercial Court of the Central Jakarta District Court determined that noteholders were not creditors of PT Bakrie Telecom Tbk ("Bakrie Tel")

for purposes of its court-supervised debt restructuring, known as a PKPU (the “Bakrie Tel PKPU”). Bakrie Tel, an Indonesian telecommunications company, is the guarantor of US\$380 million of senior notes issued in 2010 and 2011 by a Singapore-incorporated special purpose vehicle that is a subsidiary of Bakrie Tel. The proceeds from the offering of the notes were on-lent to Bakrie Tel pursuant to an intercompany loan agreement, which was guaranteed by Bakrie Tel and assigned to the noteholders as collateral. In its decision affirming the composition plan, the Commercial Court accepted the supervisory judge’s determination that, with respect to the notes, the creditor of Bakrie Tel was the issuer subsidiary, instead of the noteholders or the trustee, and subsequently gave no effect to the guarantee. As a result, the noteholders and the trustee were deemed as ineligible to vote as creditors in the Bakrie Tel PKPU proceedings, which substantially altered the terms of the U.S. dollar bonds and the guarantee.

In early 2016, similar to the Bakrie Tel PKPU case, an Indonesian company, PT Trikomsel Oke Tbk (“Trikomsel”) entered into PKPU proceedings (the “Trikomsel PKPU”). The PKPU administrators were reported to have rejected claims that arose from holders of their two Singapore dollar bonds and have taken the stance that the trustees under such bonds did not have any standing to make claims on behalf of bondholders. Further, they asserted that only individual bondholders that had filed claims on their own would be able to participate in the PKPU proceedings and to vote on any restructuring plan. This stance was further affirmed by the Commercial Court and the Trikomsel PKPU that was settled on September 28, 2016 through the ratification of a composition plan (*rencana perdamaian*) which was approved by certain bondholders, and then ratified by the Jakarta Commercial Court. See “Risk Factors — Risks Relating to the Notes and the Guarantee — An Indonesian court has limited certain rights of the trustee, acting on behalf of the holders of U.S. dollar bonds, in relation to the parent guarantor, in a decision that affected the holders’ rights and the terms of the bonds in connection with a debt restructuring of the parent guarantor.”

On September 28, 2016, the PKPU process was settled between Trikomsel and its creditors through the establishment of a composition plan (*rencana perdamaian*) which was approved by certain bondholders, and then ratified by the Jakarta Commercial Court. Based on an announcement from Trikomsel, under the composition plan, the bondholders of the two Singapore dollar bonds may be required to convert their notes into new shares to be issued by Trikomsel, thereby extinguishing the bonds.

The Indonesian legal system does not recognize the doctrine of *stare decisis* (i.e. the doctrine that precedent decisions by a court will subsequently bind later courts) as would be the case in common law jurisdictions such as the United States or England. This means that lower courts are not bound by the Indonesian Supreme Court decisions, even if such decisions may be accorded persuasive force. Therefore, the outcome of specific cases in the Indonesian legal system is subject to considerable discretion and uncertainty. There can be no assurance that a court will not issue a future decision related to the validity and enforceability of the Securities similar to the June 2006 Decision, the March 2009 Decision, or the BTEL PKPU or Trikomsel PKPU decisions. Furthermore, a court could grant additional relief to the detriment of the holders of the Notes should we or Adaro Indonesia contest their enforcement of our obligations. For more information on these risks, see “Risk Factors — Risks Relating to the Notes and the Guarantee.”

INDONESIAN REGULATION OF OFFSHORE BORROWINGS

Under Presidential Decree No. 59/1972 on Offshore Commercial Borrowings dated October 12, 1972 which has been partially revoked by Presidential Regulation No. 86/2006 on Granting of Guarantees from the Government for the Acceleration of Development of Coal-Fired Power Plants dated October 18, 2006 and lastly amended by Presidential Regulation No. 91/2007 dated September 19, 2007 (“Presidential Decree No. 59/1972”), we are required to report particulars of our offshore borrowings to the Minister of Finance of Indonesia and Bank Indonesia, i.e. on the acceptance, implementation, and repayment of loan principal and interest. Further, under the Ministry of Finance Decree No. KEP-261/KMK/IV/5/73, dated May 3, 1973, as amended by the Ministry of Finance Decree No. 417/KMK.013/1989 dated May 1, 1989, and the Ministry of Finance Decree No. 279/KMK.01/1991 dated March 18, 1991, the Issuer is also required to submit periodic reports of such offshore loans to the Minister of Finance of Indonesia and Bank Indonesia on the effective date of the loan agreement and each subsequent three-month period. In addition, under Presidential Decree No. 39/1991 dated September 4, 1991 (“Presidential Decree No. 39/1991”), all offshore commercial borrowers must submit periodic reports to the Offshore Commercial Borrowings Coordinating Team (*Tim Koordinasi Pengelolaan Pinjaman Komersial Luar Negeri* or the “PKLN Team”) on the implementation of their offshore commercial borrowing.

Further, under Presidential Decree No. 39/1991, a prior approval from the PKLN Team is required for private companies to obtain offshore loans if, amongst other things, the purpose of the loan is to fund a project where there is involvement from the Government or any state-owned enterprise.

On December 31, 2014, Bank Indonesia issued Bank Indonesia Regulation No. 16/22/PBI/2014 regarding the Reporting on Foreign Exchange Activities and Reporting on the Implementation of Prudential Principles in the Management of Non-Bank Corporation’s Offshore Debt (“PBI 16/22”). The scopes of reporting under PBI 16/22 are (A) in connection with foreign exchange activities, all Indonesian residents, whether individuals or entities, who engage in foreign exchange activities are required to report (i) any trading of goods, services and other transactions between an Indonesian resident and a non-resident; (ii) any offshore financial assets and/or offshore financial liabilities and any change thereto; and/or (iii) offshore debt plan and/or its realization to Bank Indonesia, and (B) in connection with the implementation of prudential principles, any non-bank entity which applies prudential principles is required to submit reports which cover (i) the implementation of prudential principles which have complied with an attestation procedure; (ii) a report on the implementation of prudential principles; (iii) notification of compliance of credit ratings; and (iv) financial statements.

On January 9, 2019, Bank Indonesia issued Bank Indonesia Regulation No. 21/2/PBI/2019 dated January 9, 2019 on Reporting of Foreign Exchange Activity (“PBI 21/2”), which became effective from March 1, 2019. This regulation revokes all provisions on the reporting of foreign exchange activities under PBI 16/22. Therefore, based on PBI 21/2, PBI 16/22 remains valid and only regulates the reporting of the implementation of the prudential principles. PBI 21/2 requires any entities engaged in activities that cause a movement of (i) financial assets and/or liabilities and/or risk participation transaction between an Indonesian resident and a non-Indonesian resident or (ii) offshore financial assets and/or liabilities and/or risk participation transaction between Indonesian residents, to submit a foreign exchange activities report with respect to any foreign exchange activities to Bank Indonesia. The relevant entities include bank and non-bank financial entities, non-financial entities, individuals and entities other than enterprises, whether in the form of legal entities or non-legal entities established by a government or the public. The report must include, among other things, information relating to (i) trade activities in goods, services or other transactions between an Indonesian resident and a non-Indonesian resident; (ii) principal data of risk participation transaction and/or offshore loan; (iii) plan to draw and/or repay the offshore loan and/or risk participation transactions; (iv) realization to draw and/or repay the offshore loan and/or risk participation transactions; (v) the position and changes of offshore financial assets, offshore financial liabilities and/or risk participation transactions; and/or (vi) any plans to incur new offshore loans and/or their amendment. Bank Indonesia has issued implementing regulations for PBI 21/2, namely (i) the Members of the Board of Governor of Bank Indonesia Regulation No. 21/3/PADG/2019 dated February 15, 2019 on Offshore Debt of Bank and Other Bank’s Liabilities in Foreign Exchange (“PADG 21/3”); and (ii) the Members of the Board of Governor of Bank Indonesia Regulation No. 21/4/PADG/2019 dated February 28, 2019 on the Reporting of Foreign Exchange Activities in the Form of Offshore Debt and Risk Participation Transactions (“PADG 21/4”). Both implementation regulations became effective on March 1, 2019. The report on foreign

exchange activities must be submitted using an online system in accordance with each implementing regulation of PBI 21/2 as applicable, namely PADG 21/3 or PADG 21/4.

According to PADG 21/4, any individual or entity that obtains offshore debt in a foreign currency and/or Rupiah and conducting risk participation transactions pursuant to loan agreements, debt securities, trade credits or loans other than loans pursuant to loan agreements, debt securities and trade credit (i.e. a dividend loan and royalty loan) must report such activities to Bank Indonesia. There is no minimum amount requirement to trigger the reporting obligation with regard to offshore debt obtained by an entity (whether a financial or non-financial institution). In contrast, an individual's offshore debt is only required to be reported if such debt exceeds an amount of US\$200,000 or its equivalent in any other currency. The reports consist of the main data report and/or amendments, the monthly recapitulation data report and offshore debt plan data report. The main data report must be submitted to Bank Indonesia by no later than the 15th day of the following month from 07:10 Western Indonesia time to 16:15 Western Indonesia time after the signing of the loan agreement or the issuance of the debt securities and/or the debt acknowledgment over the trade credits and/or other loans, and a monthly recapitulation data report must be submitted to Bank Indonesia by no later than the 15th day of the following month at 24:00 Western Indonesia time, until the offshore debt has been repaid in full and an offshore debt plan data report must be submitted to Bank Indonesia by no later than March 15 for a new offshore debt plan and June 15 for changes to the offshore debt plan.

In relation to the implementation of prudential principles as regulated under PBI 16/22 and PBI 16/21/2014 (as defined below), based on Bank Indonesia Circular Letter No. 17/3/DStA dated March 6, 2015 on the Reporting of the Implementation of Prudential Principles in the Management of Non-Bank Corporation's Offshore Debt as amended by Bank Indonesia Circular Letter No. 17/24/DStA dated October 12, 2015 ("SEBI 17/3/DStA"), non-bank corporations must submit:

- the prudential principle implementation activity report ("KPPK report"): (i) a non-attested KPPK Report, which is to be submitted on quarterly basis, no later than the end of the third month after the end of the relevant quarter; and (ii) an attested KPPK report (attested by a public accountant), which is to be submitted annually by no later than the end of June of the following year;
- information on the fulfillment of credit ratings, which is to be submitted at the latest at the end of the month following the execution or issuance of the offshore debt; and
- the financial statements of the company, consisting of: (i) unaudited financial statements, to be submitted on quarterly basis, by no later than the end of the third month after the end of the relevant quarter; and (ii) annual audited financial statements, which must be submitted by no later than end of June of the following year.

Bank Indonesia examines the accuracy of the foreign exchange activities report and the prudential principle implementation activity report. It can also request clarifications, evidence, records or other supporting documents from the relevant party or institutions, including direct inspection of the company or appoint a third party to do so.

As of January 1, 2016, submissions of and corrections to the prudential principle implementation activity report shall be made online.

Related to the reporting requirements under PBI 16/22, Bank Indonesia also issued Bank Indonesia Regulation No. 16/21/PBI/2014 on the Implementation of Prudential Principles in the Management of Non-Bank Corporation's Offshore Debt as amended by Bank Indonesia Regulation No. 18/4/PBI/2016 ("PBI 16/21/2014"), which is applicable to non-bank corporations that obtain offshore Debt in a foreign currency (non-Indonesian Rupiah). PBI 16/21/2014 is implemented through (i) Bank Indonesia Circular Letter No. 16/24/DKEM dated December 30, 2014, as amended by Bank Indonesia Circular Letter No. 17/18/DKEM dated June 30, 2015, and Bank Indonesia Circular Letter No. 18/6/DKEM dated April 22, 2016 and (ii) SEBI 17/3/DStA.

PBI 16/21/2014 requires non-bank corporations that have offshore debt in a foreign currency (non-Indonesian Rupiah) to maintain the following prudential principles, (i) minimum hedging requirements,

(ii) minimum liquidity requirements and (iii) minimum credit ratings. The hedging requirements do not apply to non-bank corporations whose financial statements are presented in United States dollars and who fulfill the following criteria: (i) an export revenue to business revenue ratio of more than 50% in the previous calendar year, and (ii) approval from the Ministry of Finance to use United States dollars in their financial statements, which approval shall be evidenced by submitting supporting documents to Bank Indonesia.

The minimum hedging requirement is applied with a two-stage approach to avoid unnecessary difficulties for corporations having existing offshore debt. From December 31, 2015, the minimum hedging ratio is set at 25% of (i) the negative difference between the foreign exchange assets and the foreign exchange liabilities that will become due within three months from the end of the relevant quarter and (ii) the negative difference between the foreign exchange assets and the foreign exchange liabilities that will become due in the period of more than three months up to six months after the end of the relevant quarter.

On the minimum liquidity requirement, non-bank corporations that have offshore debt in a foreign currency are also required to comply with the minimum liquidity ratio of at least 70% by providing sufficient foreign exchange assets against foreign exchange liabilities that will become due within three months from the end of the relevant quarter.

The minimum credit rating requirement is required to be maintained at BB-(BB minus) or its equivalent from a particular rating agency recognized by Bank Indonesia. Such credit rating will be for both the relevant corporation (issuer rating) and/or any bonds (issue rating) in accordance with the type and period of such foreign currency offshore debt. Such rating shall be valid for two years as of the rating issuance. PBI 16/21/2014 provides that corporations may use their parent company credit rating if (i) such corporation enters into offshore debt in foreign currency with its parent company, or if the offshore debt is guaranteed by the parent company, or (ii) such corporation is a newly established corporation with a maximum three years since the corporation began commercial operation. The requirement to fulfill the minimum credit rating requirement is exempted for (i) the refinancing of offshore debt in foreign currency (such exemption is limited to refinancing which does not increase the outstanding amount of the previous debt or if it increases, such increase shall not exceed (a) US\$2,000,000 or its equivalent or (b) 5% of the amount outstanding of such refinanced debt if such 5% figure is higher than US\$2,000,000 or its equivalent); (ii) offshore debt in foreign currency for infrastructure project financing derived (a) all from an international bilateral/multilateral lending agency or (b) from a syndicated loan where more than 50% of the contribution comes from international bilateral/multilateral institutions; (iii) offshore debt in a foreign currency for a central or regional government infrastructure project financing; (iv) offshore debt in a foreign currency which is secured by international bilateral/multilateral institutions; (v) offshore debt in foreign currency in the form of trade credits; (vi) offshore debt in foreign currency in form of other loans; (vii) offshore debt in a foreign currency entered into by a finance company (a business entity which conducts financing activities for the procurement of goods and services) to the extent (a) such finance company has a minimum financial soundness of “healthy” as lastly issued by OJK; and (b) such finance company fulfills the maximum gearing ratio as regulated by OJK; or (viii) offshore debt in a foreign currency by Lembaga Pembiayaan Ekspor Indonesia (Indonesia Eximbank). Non-bank corporations that have offshore debt in a foreign currency are obliged to submit a report to Bank Indonesia on the implementation of prudential principles and any exemptions, together with the relevant supporting documents. Bank Indonesia will monitor for compliance and may impose administrative sanctions in the form of warning letters for any failure to comply with the prudential principles. PBI 16/21/2014 does not specify any other sanction in the event the non-bank corporations ignore such warning letter, however Bank Indonesia may inform related parties, such as relevant offshore creditors, the Ministry of State-Owned Companies (for state-owned non-bank corporations), the Ministry of Finance on behalf of Directorate General of Tax, OJK and the Indonesia Stock Exchange (the “IDX”) (for publicly listed non-bank corporations) on the implementation of administrative sanctions.

On May 14, 2014, Bank Indonesia issued Bank Indonesia Regulation No. 16/10/PBI/2014 on Foreign Exchange Export Revenue and Drawdown of Offshore Debt, which has been amended by Bank Indonesia Regulation No. 17/23/PBI/2015 on December 23, 2015 (“PBI 16/10/2014”) and on April 6, 2016, Bank Indonesia issued Bank Indonesia Circular Letter No. 18/5/DSta on the Receipt of Offshore Debt. Based on PBI 16/10/2014, any drawdown from offshore debt (in foreign currencies) originating from (i) a non-revolving loan agreement (including offshore debt originating from a difference between the refinanced debt and the previous

debt) or (ii) offshore debt securities (including acknowledgements of debt which is tradable in domestic or international financial and capital markets in the form of, among others, bonds, medium term notes, floating rate notes, promissory notes and commercial paper) must be withdrawn through foreign exchange banks (which include offshore bank branches in Indonesia) and must be reported to Bank Indonesia with the relevant supporting documents. The aggregate amount of the receipt of the offshore debt should be equal to the local commitments provided under such debt and every receipt of offshore debt through a foreign exchange bank should be equal to each offshore debt withdrawal. In the event that the aggregate amount of the offshore debt is less than the local commitments in excess of Rp 50,000,000 (or its equivalent in foreign currencies), the borrower must submit a written explanation and sufficient supporting documentation to Bank Indonesia before the expiration of the term of such debt. In the event that the amount of offshore debt received through the foreign exchange bank is less than the amount of each offshore debt withdrawal in excess of Rp 50,000,000 (or its equivalent in foreign currencies), such offshore debt received through the foreign exchange bank will be deemed to be equal to the amount of each offshore debt withdrawal only if the borrower submits sufficient supporting documents to Bank Indonesia. Withdrawals of such offshore debt must be reported to Bank Indonesia monthly using the recapitulation data report as regulated under SEBI 15/16/DInt. These reports shall include supporting documents detailing that the receipt of offshore debt was withdrawn from the foreign exchange bank.

With respect to the foregoing reporting obligations to Bank Indonesia, the sanction that may be imposed by Bank Indonesia is as follows:

- any delay or failure to submit foreign exchange report on offshore debt plan may result in an administrative sanction in the form of a warning letter and/or notification to the relevant authority or institution which will be set by Bank Indonesia;
- any incompleteness and/or inaccuracy of information on a foreign exchange report (except for offshore debt plan) which is not corrected is an administrative sanction in the form of penalty at the amount of Rp 50,000 (fifty thousand Rupiah) per incomplete and/or inaccurate record, provided that the maximum amount of penalty imposed will not exceed Rp 10,000,000 (ten million Rupiah);
- any incompleteness and/or inaccuracy of information on the KPPK Report, may result in a penalty of Rp 500,000 (five hundred thousand Rupiah) per incompleteness and/or inaccuracy;
- any delay to submit the foreign exchange report (except for offshore debt plan) or the KPPK Report, including any supporting documents and financial statements (except for information on credit rating), may result in a penalty of Rp 500,000 (five hundred thousand Rupiah) per day of delay, provided that the maximum amount of penalty imposed will not exceed Rp 5,000,000 (five million Rupiah);
- any failure to submit the foreign exchange report (except for offshore debt plan) or the KPPK Report, including any supporting documents and financial statements (except for information on credit rating), may result in a penalty of Rp 10,000,000 (ten million Rupiah);
- in addition to the penalties above, a warning letter and/or notification to the relevant authority or institution will be issued by Bank Indonesia for any delay or failure to submit the KPPK Report, including its supporting documents and/or financial statements;
- any delay or failure to submit information regarding a credit rating may result in a warning letter and/or notification to the relevant authority or institution from Bank Indonesia; and
- any failure to comply with the obligation to withdraw the offshore debt through a foreign exchange bank in Indonesia may result in (among other things) a penalty of 0.25% (zero point two five percent) of the withdrawal amount which does not pass through the foreign exchange bank in Indonesia, provided that the maximum amount of penalty imposed will not exceed Rp 50,000,000 (fifty million Rupiah).

SUMMARY

This summary highlights information contained elsewhere in this Offering Memorandum. This summary is qualified by, and must be read in conjunction with, the more detailed information and financial statements appearing elsewhere in this Offering Memorandum. We urge you to read this entire Offering Memorandum carefully, including our financial statements and related notes and “Risk Factors.”

Overview

We are a vertically integrated energy producer with pit-to-power businesses in the coal, power and supporting logistics sectors. Our four primary businesses are Adaro Mining, Adaro Services, Adaro Logistics and Adaro Power. These businesses complement each other and make up our pit-to-power strategy, beginning with Adaro Indonesia’s coal mining business focusing on “Envirocoal,” throughout the thermal coal supply chain which allows Adaro Indonesia, as well as other members of the Group, to ensure reliable supply and efficient deliveries of coal to our customers, and on to the power business which is a long-term customer for a portion of our coal. These units are supported by Adaro Land, Adaro Water, Adaro Capital and the Adaro Foundation. We believe that our integrated business model enables us to exercise greater control over the coal supply chain from pit to port to power, enhances our ability to meet production and sales goals while minimizing operating costs and provides stable earnings even in periods of fluctuating coal prices.

A brief description of our primary businesses is set forth below.

Adaro Mining: Mining is our core business, generating 92.5% of our revenue in 2018. Historically our mining operations have been focused on thermal coal, through the mining operations of Adaro Indonesia, where it mines “Envirocoal,” a relatively low-pollutant thermal coal, and the adjacent Balangan Coal Companies’ mining operations in South Kalimantan. We own 88.47% of Adaro Indonesia and 75% of the Balangan Coal Companies and MIP. Presently our thermal coal operations also encompass operations and concessions in South Sumatra and East Kalimantan. Adaro Indonesia is one of the largest single-location coal producers in the southern hemisphere and one of the world’s lowest-cost thermal coal producers.

Starting in 2010, we have diversified our mining portfolio by adding metallurgical coal assets to our mining operations through the acquisition of mines in Indonesia in 2010 and 2016 and an interest in the Kestrel Coal Mine in Australia in 2018.

Adaro Services: Our services business focuses on mining contracting and land transportation, primarily through our wholly owned subsidiary SIS, which offers a complete range of supporting services both internally to our mining companies and externally to third parties in the mining industry.

Adaro Logistics: We believe that a critical part of our success is the coal supply reliability that we provide to our customers. We manage and coordinate the marine logistics arm of our coal supply chain with our subsidiaries, most of which are wholly owned, providing coal barging, transshipment and ship loading, channel dredging and maintenance, stevedoring, terminal services and port operations at the Taboneo offshore anchorage and our Pulau Laut onshore port. Through our integrated pit-to-port logistics supply chain, we are able to ensure reliable supply and efficient deliveries of our coal to our customers.

Adaro Power: We entered the large scale power business in 2011 with a view to diversifying into the more stable power generation industry, that is not subject to fluctuations in coal prices. This downward integration into the power business also means that there is a long-term customer for a portion our coal, subject to agreed terms which include pricing mechanisms approved by PLN, Indonesia’s state-owned electric utility provider. We have operated a smaller scale power plant since 2013 through our subsidiary MSW which operates a 2x30MW coal-fired power plant in Tanjung, South Kalimantan and which, in 2018, expanded to include a 100kWp solar project at Adaro Indonesia’s coal processing and barge loading facility in Kelanis, Central Kalimantan. MSW’s power plants primarily power Adaro Indonesia’s mining operations, with excess power sold to PLN.

Two of our joint venture projects, BPI and TPI, are expected to generate revenue from the sale of electricity to PLN under take-or-pay PPAs that have terms of 25 years from the respective projects' commercial operation date ("COD"). Payment obligations of PLN under the PPA with TPI are guaranteed by the Government of Indonesia (represented by the Ministry of Finance) in the form of a Business Viability Guarantee Letter ("BVGL"). Payment obligations of PLN under the PPA with BPI is guaranteed by the Government of Indonesia (represented by the Ministry of Finance) together with the Indonesia Infrastructure Guarantee Fund ("IIGF", or *PT Penjaminan Infrastruktur Indonesia*). The cost of coal is passed through under the PPAs. TPI and BPI's revenue depends on meeting the operating parameters set out under the PPAs with PLN. TPI's first unit was commissioned and began commercial operations in September 2019, with the second unit estimated to be commissioned and start commercial operations at the end of 2019. The power plant being constructed by BPI is scheduled to commence operations at the end of 2020 under its PPA, although there is no guarantee that construction will be finished on time or on budget. BPI is a joint venture between Adaro Power (34%), Electric Power Development Co., Ltd. (or J-Power) (34%), and Itochu Corporation (32%). TPI is a joint venture between Adaro Power (65%) and PT EWP Indonesia (subsidiary of Korea East-West Power Co., Ltd.) (35%).

While we are in the process of diversifying our business, thermal coal mining, primarily at Adaro Indonesia, remains the most significant portion of our business and is expected to remain so for the near to medium term.

For the year ended December 31, 2018 and the six months ended June 30, 2019, we had revenues of US\$3,619.8 million and US\$1,775.2 million, respectively, and Adaro Indonesia's standalone revenue (before elimination of intragroup transactions) was US\$3,249.1 million, and US\$1,546.4 million, respectively. For the same periods, we had Operational EBITDA of US\$1,407.7 million and US\$690.6 million, respectively and Adaro Indonesia's standalone Operational EBITDA (before the elimination of intragroup transactions) was US\$882.9 million and US\$413.2 million, respectively.

We were listed on the Indonesia Stock Exchange in 2008 with the stock symbol "ADRO." As of June 30, 2019, our market capitalization was Rp 43,501 billion (equivalent to US\$3,076.2 million).

Strengths

We are a leading energy company with the largest resources and one of the highest quality operating assets in Indonesia, which is the largest coal exporting country globally

We have the largest coal resources and third largest coal reserves base among Indonesian coal mining companies. Our total estimated thermal coal resources are 13,690.9 million tonnes and thermal coal reserves are 1,276.7 million tonnes. In 2018, we were also the second largest coal producer in Indonesia, producing 53.0 million tonnes of thermal coal and 1.0 million tonnes of metallurgical coal in 2018 with a low average strip ratio of 5.1x. Our thermal coal assets have an average mine life of 24.1 years, one of the longest in the industry. We are one of the lowest cost coal producers globally, consistently positioned in the lowest quartile of the global thermal coal cost curve.

We believe we are strategically important to the Indonesian economy. According to IHS Markit and based on our production and export figures, we are one of the largest domestic coal suppliers in Indonesia, supplying an estimated 10.7% of Indonesian coal demand in 2019 and accounting for approximately 13.0% of Indonesia's coal exports in 2018. According to IHS Markit, Indonesia has consistently been the largest thermal coal exporting country in the world. Our robust size and high quality assets have enabled us to achieve long mine life, sizeable and stable operations, economies of scale and cost optimization across our pit-to-power coal production.

We deliver the strongest financials among our peers in Indonesia, underpinned by our integrated pit-to-power strategy and low cost operating model. We are well positioned to diversify our earnings base and capture industry-wide growth

We deliver the strongest financials among Indonesian coal mining companies, as reflected in our industry leading revenue of US\$3,619.8 million, Operational EBITDA of US\$1,407.7 million and Operational EBITDA

margin of 38.9% for 2018. We have a strong track record of sustaining a high Operational EBITDA margin even during periods of low thermal coal prices. Our strong financials are underpinned by our vertically integrated pit-to-power support infrastructure, which permits us greater control over costs, while maintaining strong margins.

Our solid financial performance is further enhanced by our management team's ability to prudently manage our operations, cash flow and balance sheet. We have a strong financial liquidity with cash balance of US\$927.9 million as of December 31, 2018, due to our demonstrated ability to consistently generate cash, leading to our track record of deleveraging as evidenced by our total net debt to Operational EBITDA ratio of 0.3x as of December 31, 2018.

Our strong financial performance is underpinned by the successful pit-to-power strategy, which covers the entire thermal coal supply chain, with each of our four primary businesses — Adaro Mining, Adaro Services, Adaro Logistics and Adaro Power — operating as independent profit centers to capture growth in the Indonesian coal and power industries. These businesses complement each other to enhance competitiveness, positioning us in the lowest quartile of world's coal production cost, on an FOB port basis, making our coal highly competitive in the market. In addition, we enjoy significant operational advantages at Adaro Indonesia's thermal coal mine, including a low strip ratio and thick coal seams, as well as geographical proximity to key export markets in Asia such as China and India in comparison to competitors in Australia.

Our in-house Adaro Services and Adaro Logistics businesses allow us to capture margins from synergies and retain a structurally lower cost base; while Adaro Power creates captive demand for our coal and helps to mitigate coal sales price volatility with its passthrough coal pricing. Adaro Services handles approximately 70% of Adaro Indonesia's coal land transportation volume while Adaro Logistics manages approximately 85% of Adaro Indonesia's coal barging and ship loading volume. With control over downstream operations, we have headroom in various segments of the value chain to tighten costs and have therefore consistently achieved robust operational EBITDA margins even during periods of low thermal coal prices. Beyond handling Adaro Indonesia's operations, Adaro Services and Adaro Logistics have established long-term contracts with third-parties as well. Adaro Indonesia is well-positioned to capture the growth in Southeast Asian thermal coal demand, which is expected to increase at a CAGR of 5.8% from 104 million tonnes in 2018 to 194 million tonnes in 2029, according to IHS Markit. Adaro Energy is well-placed to fully capture this industry wide-growth.

Our portfolio of high quality and well-branded coal products is positioned to capture market demand and growth opportunities

Envirocoal is a world-leading brand of coal, known for the lowest sulfur, lowest ash and extremely low nitrogen content and is the ideal product for power generation customers in an increasingly restrictive regulatory environment. Envirocoal is a world-leading brand of coal, known as for the lowest sulfur, lowest ash and extremely low nitrogen content and is the ideal product for power generation customers in an increasingly restrictive regulatory environment. These characteristics also help our power generation customers reduce costs associated with ash disposal and nitrous oxides removal and reduce their required capital expenditure for flue gas desulfurization units, which could constitute up to 30% of total capital expenditure for new coal-fired power stations. Envirocoal is trademarked in 35 countries and considered as the benchmark sub-bituminous coal brand in the export market.

Envirocoal is capturing a larger share of an overall growing demand for seaborne thermal coal, which is expected to increase from 1,011 million tonnes in 2018 to 1,066 million tonnes in 2029, according to IHS Markit. Thermal coal is expected to remain the fuel of choice for baseload power generation. In Asia Pacific, coal will continue to contribute the largest share of the power generation mix (approximately 50% to 60%) over the next decade, according to IHS Markit. Indonesia is the largest exporter of thermal coal, accounting for 41% of global seaborne thermal coal supply in 2018 and is expected to remain the dominant thermal coal supplier in 2029, according to IHS Markit. We are well-positioned to capture the growing demand for Indonesian thermal coal exports with our lowest quartile production cost and our large coal reserves and resources.

Our leading product portfolio has expanded to include metallurgical coal. We expect AMC and Kestrel to produce significant amount of hard coking coal and semi-soft coking coal to meet the growing demand for

metallurgical coal, a non-substitutable component in blast furnace steel production, which is expected to increase from 347 million tonnes in 2018 to 408 million tonnes by 2029 driven by the demand for steel for continued infrastructure development, according to IHS Markit. We anticipate that metallurgical coal will provide an attractive alternative revenue stream in periods of low thermal coal prices.

Our long-term supply contracts and established relationships with diversified, high quality customers provides strong thermal coal sales visibility

Our well-established track record and reliability in delivering coal on time, and according to agreed specifications, gives our customers the confidence to enter into long-term contracts with us and has enabled us to build solid relationships with them over time. Our reliability of supply is founded on our vertical integration, which allows us greater control over the supply chain, ensuring quality, consistency and timely delivery. We have secured an aggregate commitment of approximately 84 million tonnes from our customers from June 30, 2019 through to the end of 2022. Adaro Indonesia's top clients are highly rated, primarily state-owned enterprise power companies in investment grade rated countries such as China, South Korea, and Malaysia. Adaro Indonesia has a long standing relationship with its top ten customers, with a weighted average relationship length of more than 15 years as of June 30, 2019, with the longest relationship extending to 23 years.

With more than 60 end-user customers located across 14 countries, Adaro Indonesia's customer base is well-diversified geographically, which reduces country and region-specific macro-economic risks. Only one customer comprised more than 10% of total volume sold for the six months ended June 30, 2019.

Our experienced management team has a proven track record of operational excellence, strategic expansion and establishment of strong partnerships

Our management team is composed of experienced industry professionals with strong execution track records in energy, mining, logistics and services sectors. They have contributed to our operational excellence, performance improvements and cross-selling successes, acquisitions and integration, and have allowed us to consistently deliver positive performance in line with our financial targets. For example, following our joint venture with EMR Capital's acquisition of an 80% interest in Kestrel Coal Mine in August 2018, coal production targets at the Kestrel Coal Mine have increased by 40% year on year. Our management team also has a successful track record of vertical integration and expansion across the thermal coal supply chain, particularly the development of SIS and MBP into key mining services and logistics providers for our internal supply chain, and in the case of SIS, for third party miners.

Our management team also has a track record of initiating successful partnerships, for example, EGAT International Company Limited, a subsidiary of the Electrical Generating Authority of Thailand, a Thai state-owned enterprise responsible for power generation and transmission, in 2016 took an 11.53% ownership stake in Adaro Indonesia. Additionally, Adaro Power has collaborated on large-scale power projects with strategic partners such as Korea East West Power, J-Power and Itochu Corporation. Finally, our long-term majority shareholders provide strong support and strategic oversight.

We have a strong commitment towards environmental sustainability and community relations

We have been at the forefront of the thermal coal industry on environmental initiatives and all of our projects adhere to local and international ESG standards. Envirocoal's lowest ash, lowest sulfur and extremely low nitrogen content, helps our clients reduce emissions while generating electricity, and comply with increasingly strict regulatory and environmental standards. Our Adaro Power operations have improved, and will improve electricity generation efficiency and hence reduce environmental impact. The installation of our first solar power project by MSW at Adaro Indonesia's coal processing and barge loading facility in Kelanis, Central Kalimantan reduced CO₂ emission by 88.4 tonnes/year (equivalent to 33,000 liters/year in fuel savings) by replacing less environmentally friendly coal-fired power generation. When it is commissioned, BPI is expected to be one of the largest power plants in Southeast Asia to use ultra-supercritical (USC) boiler technology. The use of USC boiler technology improves the efficiency of electricity generation, therefore lowering consumption of coal for a given level of energy production.

Maintaining strong relationships with local communities is also one of our key focuses, where we work to align our award winning initiatives with the government's agenda and international standards to create greater impact to the community in areas such as educational advancement, economic development, water supply improvements, health services improvements, socio-cultural preservation and environmental conservation.

Strategies

Persistently pursue operational excellence to maintain global cost leadership at the lowest quartile of the cost curve

In order for us to consistently outperform and maintain strong margins, especially in case of lower thermal coal price environments, we must maintain the credibility and reliability required by our customers, while continuously delivering incremental value, despite already being one of the world's lowest cost thermal coal producers. We aim to improve operational efficiency by continuing to identify areas of opportunity for cross-selling and integration, adopting technological improvements in our barge fleet to drive efficiency, such as GPS / RFID tracking and other advanced monitoring of our fleet to minimize idle capacity and improve our control of barge cycle time, including via a centralized procurement and dispatch system, and continuing to enhance our hauling road to improve efficiency, reduce lag time and minimize cost. Finally, we intend to achieve further cost optimization through maintaining our collaborative relationships with our internal and third-party contractors to encourage competition between contractors and realize cost savings.

Maintain sustainable levels of coal reserves and coal production

We intend to maintain our production leadership by leveraging our existing portfolio, which includes the largest coal resources and third-largest coal reserves among Indonesian coal mining companies. Adaro Indonesia has replenished its existing reserve base through periodic exploration and controlled capital expenditure, achieving a mine life estimated at 17.9 years, one of the longest in the industry. In addition to Adaro Indonesia's coal reserves and resources, we plan to prudently identify additional coal resources and production opportunities that have synergies with our existing operations. For example, our strategic expansion into metallurgical coal since 2016 is based around AMC and Kestrel Coal Mine, two high quality assets, and was due to potential synergies (such as logistical synergies with Adaro Indonesia at AMC) and cross-selling opportunities.

Grow and diversify earnings base as we solidify our position as a leading pit-to-power player throughout the integrated coal value chain

To continue to improve our earnings stability and multi-year volume commitments, Adaro Indonesia intends to continue to secure long-term contracts with its high quality and geographically-diversified customers. At the same time, we plan to continue to increase the scale, earnings and cashflow of our other primary businesses, as we capture growth in coal services, coal logistics, metallurgical coal and power, thereby increasing their financial contributions, relative to our historical reliance on thermal coal mining.

Adaro Power creates captive demand for our coal and helps to mitigate volatility in the coal industry. Adaro Power currently has approximately 60MW of operational coal-fired power generation capacity and is in the midst of constructing, via joint ventures (TPI and BPI), 2.2GW of new coal-fired capacity accounting for approximately 6.0Mt of captive thermal coal demand annually once commercially operational. This additional power generation capacity is expected to contribute meaningfully to our financial results in the next few years.

Additionally, our strategic expansion into metallurgical coal will increase our earnings base, and further enhance our geographical and product diversification. Our diversification efforts are crucial to grow our earnings base across the coal services, coal logistics, metallurgical coal and coal-fired power industries. We expect this diversification to mitigate the challenges in case of a lower thermal coal price environment.

Maintain prudent financial policy and disciplined cashflow management

We have had a strong focus on maintaining conservative leverage and strong balance sheet and liquidity, and intend to maintain this focus in the future through implementing prudent financial policies and disciplined cashflow management. We plan to continue to diversify our funding sources either through the capital markets, or through our relationships with over 20 domestic and international lenders.

Capitalize on the increasing global focus on environmental preservation with well-established products and strong brand recognition

IHS Markit anticipates increasing demand for sub-bituminous coal in the region we serve, driven by power generation needs in India, the Philippines, Bangladesh, Vietnam and other Southeast Asian countries, where demand for coal-fired power is expected to grow. As these markets develop increasingly stringent environmental regulations, while still relying on coal-fired power generation, we will continue to educate customers about the benefits of Envirocoal as a world-leading thermal coal that is the lowest in sulfur, the lowest in ash, with highest energy output per sulfur and ash content in comparison to its competitors, and extremely low in nitrogen, which allows customers to both comply with their environmental obligations and reduce required capital and operating expenditure.

Deepen commitment to the community while maintaining high standards of safety and compliance

In addition to our primary businesses, we intend to continue to strengthen our commitment to the community and support social initiatives in Indonesia through our other businesses, which we expect will also expand our revenue base. These other business areas are: (i) Adaro Land, our strategic land asset and infrastructure company, which contributes to the growth and operational sustainability of our businesses, before and after coal extraction; (ii) Adaro Water, which works with state entities to improve the well-being of Indonesians by making clean water more available; and (iii) the Adaro Foundation, which supports the communities that give us social license in economic independence, educational enhancement, health improvements, socio-cultural promotion and environmental conservation. Finally, we are committed to continuing our award winning QHSE performance, which consistently surpasses applicable regulatory guidelines, to promote sustainable growth.

Corporate Information

The Issuer and the Parent Guarantor are Indonesian companies. Adaro Indonesia's principal executive offices are located at Menara Karya, 22nd-23rd Floor, Jl. H.R. Rasuna Said, Block X-5, Kav. 1-2, Jakarta 12950, Indonesia and its telephone number at that address is +62-21-2553-3000, its legal entity identifier is 2549009Z0YED3S2BID40. The Parent Guarantor's principal executive offices are located at Menara Karya, 23rd Floor, Jl. H.R. Rasuna Said, Block X-5, Kav. 1-2, Jakarta 12950, Indonesia and its telephone number at that address is +62-21-2553-3000, its legal entity identifier is 529900P2WAH7XA87OI24. Adaro Energy's website is located at www.adaro.com. The information on Adaro Energy's website is not part of this Offering Memorandum.

THE OFFERING

The following summary of the offering contains basic information about the Notes and the Guarantee. It is not intended to be complete and is subject to important limitations and exceptions. Terms used in this summary and not otherwise defined shall have the meanings given to them in “Description of Notes.” For a more complete understanding of the Notes and the Guarantee, please refer to “Description of Notes” herein.

Issuer	PT Adaro Indonesia
Parent Guarantor	PT Adaro Energy Tbk
Notes offered	US\$750.0 million aggregate principal amount of 4.25% Guaranteed Senior Notes due 2024
Issue Price	98.892% of principal amount
Issue Date	October 31, 2019
Maturity Date	October 31, 2024
Interest	4.25% per annum, payable semi-annually in arrears on each April 30 and October 31 commencing on April 30, 2020
Ranking	The Notes will: • be unsecured; • be effectively junior to the Issuer’s secured debt to the extent of the assets securing such debt; • be structurally subordinated to all existing and future obligations of the Issuer’s Subsidiaries, if any; and • rank equally with all of the Issuer’s existing and future unsecured unsubordinated debt. The Guarantee will: • be unsecured; • be irrevocable and unconditional; • be effectively junior to the Parent Guarantor’s secured debt to the extent of the assets securing such debt; • rank equally with all of the Parent Guarantor’s existing and future unsecured unsubordinated debt; and • be structurally subordinated to all of the existing and future liabilities (including trade payables) of each of the Parent Guarantor’s subsidiaries (other than the Issuer) which will not be guaranteeing the Notes. The Parent Guarantor may in the future designate its subsidiaries to guarantee the Notes.

As at June 30, 2019, on a pro forma basis after giving effect to the offering, as more fully described in “Use of Proceeds”:

- the Issuer would have had approximately US\$1,267.6 million of total indebtedness, all of which is unsecured; and
- the Parent Guarantor would have had:
 - US\$1,795.3 million of total consolidated indebtedness, including the Notes, substantially all of which will be guaranteed by the Parent Guarantor;
 - the Parent Guarantor’s other subsidiaries would have had US\$527.7 million of total debt (excluding guarantees of intercompany liabilities), all of which would have been structurally senior to the Guarantee; and
 - approximately US\$322.4 million of guarantees of the debt of joint ventures which are not consolidated subsidiaries.

Covenants

The Issuer will issue the Notes under an indenture with The Bank of New York Mellon, as trustee. The indenture will, among other things, limit the ability of the Issuer to:

- incur additional debt;
- issue redeemable and preferred stock;
- create liens;
- sell or otherwise dispose of assets;
- enter into mergers or consolidations;
- enter into transactions with affiliates; and
- enter into new lines of business.

These covenants will be subject to a number of important exceptions and qualifications, including a suspension of the covenants after the Notes are publicly rated investment grade by any one rating agency until such time any rating agency reduces its public rating of the Notes from investment grade to below investment grade. For more details, see “Description of Notes.”

Optional Redemption

At any time prior to October 31, 2022, the Issuer may redeem up to 35% of the original principal amount of the Notes with the proceeds of one or more equity offerings of the Issuer or the Parent Guarantor at a redemption price of 104.2500% of the principal amount of the Notes, together with accrued and unpaid interest, if any, to the date of redemption.

The Notes will be redeemable at the Issuer’s option, in whole or in part, at any time on or after October 31, 2022, at the redemption prices set forth in this Offering Memorandum, together with accrued and unpaid interest, if any, to the date of redemption.

Prior to October 31, 2022, the Issuer may redeem all or part of the outstanding principal amount of the Notes at a price equal to 100% of the principal amount of the Notes plus a “make-whole” premium and accrued and unpaid interest, if any, to the date of redemption.

Subject to certain exceptions, the Issuer may redeem all, but not some, of the Notes at their principal amount, plus accrued interest, upon a change in tax law increasing the rate of Indonesian withholding taxes on amounts payable under the Notes or the guarantees of the Notes provided by the Parent Guarantor or future guarantors.

Repurchase upon a Change of
Control

The occurrence of a change of control will require the Issuer to offer to purchase all or a portion of the Notes at a price equal to 101% of their principal amount, together with accrued and unpaid interest, if any, to the date of purchase.

A change of control event includes the Parent Guarantor ceasing to own at least 60% direct or indirect shareholding in the Issuer. See “Description of Notes.”

Form and Denomination

The Notes will be issued in the specified denomination of US\$250,000 or integral multiples of US\$1,000 in excess thereof. The Notes will initially be evidenced by global Notes registered in the name of Cede & Co., as nominee for DTC.

Transfer Restrictions; Absence of
Public Market for the Notes

The Notes will not be registered under the Securities Act or under any state securities laws of the United States and will be subject to restrictions on transfer and resale as set out herein and in the Indenture. Without limiting the foregoing, Rule 144A Notes (or beneficial interests therein) may be sold in the United States only to purchasers that are both “qualified institutional buyers” and “qualified purchasers,” in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 144A, and Regulation S Notes (or beneficial interests therein) may be sold outside the United States only to non-U.S. persons in offshore transactions meeting the requirements of Regulation S. See “Plan of Distribution” and “Transfer Restrictions.”

The Notes are a new issue of securities and there is currently no established trading market for the Notes. Accordingly, there can be no assurance as to the development or liquidity of any market for the Notes.

Listing

Approval in-principle has been received for the listing and quotation of the Notes on the SGX-ST. The Notes will be traded on the SGX-ST in a minimum board lot size of US\$250,000 as long as any of the Notes are listed on the SGX-ST and the rules of the SGX-ST so require. The Initial Purchasers have advised the Issuer that they currently intend to make a market in the Notes. However, they are not obligated to do so, and any market making with respect to the Notes may be discontinued without notice.

Use of proceeds	The Issuer intends to use the net proceeds of this offering to repay a portion of the Issuer's existing indebtedness when it falls due under its existing amortization schedules in the first half of 2020, for additional debt repayment, general corporate purposes and capital expenditures of the Group. See "Use of Proceeds."	
Ratings	The Notes have been rated "Ba1" by Moody's Investors Service, Inc. ("Moody's") and "BBB-" by Fitch, Inc. ("Fitch"). A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organization.	
Governing Law	The Indenture, the Notes and the Guarantee will be governed by the laws of the State of New York.	
Trustee, Paying Agent, Registrar and Transfer Agent	The Bank of New York Mellon	
Security Codes	Notes sold under Rule 144A: CUSIP No.: 69368K AB2 ISIN: US69368KAB26 Common Code: 207291285	Notes sold under Regulation S: CUSIP No.: Y70902 AB0 ISIN: USY70902AB04 Common Code: 207290971
Legal Entity Identifier	Issuer 2549009Z0YED3S2BID40 Parent Guarantor 529900P2WAH7XA87OI24	
Risk Factors	In evaluating an investment in the Notes, prospective investors should carefully consider, along with the other information in this offering memorandum, the specific factors set forth under "Risk Factors" for risks relating to an investment in the Notes.	

SUMMARY FINANCIAL INFORMATION AND OTHER DATA

You should read the summary financial information presented below in conjunction with the consolidated financial statements of the Group and the related notes to these consolidated financial statements included in this Offering Memorandum. You should also read the section of this Offering Memorandum entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Adaro Energy

The following tables present the Group’s selected consolidated financial and other information as of and for the years ended December 31, 2016, 2017 and 2018, as of June 30, 2019 and for the six months ended June 30, 2018 and 2019. The information should be read in conjunction with our audited and unaudited consolidated financial statements and the related notes thereto, which are included elsewhere in this Offering Memorandum. Our historical results of operations, financial position and cash flows are no guarantee of its future operating performance. The consolidated financial statements are prepared and presented in accordance with Indonesian FAS, which differs in certain respects from U.S. GAAP. For a description of certain differences between Indonesian FAS and U.S. GAAP, see “Summary of Certain Differences Between Indonesian FAS and U.S. GAAP.”

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Consolidated Statements of Profit or Loss and Other Comprehensive Income data:					
Revenue	2,524.2	3,258.3	3,619.8	1,610.3	1,775.2
Cost of revenue	(1,839.0)	(2,116.8)	(2,409.5)	(1,118.3)	(1,210.8)
Gross profit	685.3	1,141.5	1,210.2	492.0	564.4
Operating expenses	(151.2)	(183.7)	(194.0)	(89.8)	(114.7)
Other income/(expenses), net	53.5	(6.0)	(124.3)	(10.7)	0.9
Operating income	587.6	951.8	891.9	391.4	450.5
Finance costs	(50.0)	(53.0)	(65.1)	(29.7)	(34.3)
Finance income	9.1	18.7	23.6	12.5	12.0
Share in net (loss)/profit of joint ventures	(0.2)	12.0	(29.4)	12.0	60.0
	(41.1)	(22.3)	(70.9)	(5.3)	37.7
Profit before income tax	546.5	929.5	821.0	386.2	488.3
Income tax expense	(205.8)	(393.1)	(343.5)	(162.1)	(167.1)
Profit for the year/period	340.7	536.4	477.5	224.0	321.2
attributable to owners of the parent entity	334.6	483.3	417.7	195.4	296.9
attributable to non-controlling interests	6.1	53.1	59.8	28.7	24.3
Other comprehensive income /(loss) for the year/period, net	41.1	(18.3)	(8.9)	22.5	(48.7)
Total comprehensive income for the year/period, net of tax	381.8	518.1	468.6	246.6	272.5

	As of December 31,			As of June 30,
	2016	2017	2018	2019
	(US\$ in millions)			
Consolidated Statements of Financial Position:				
ASSETS				
Current Assets				
Cash and cash equivalents	1,076.9	1,206.8	927.9	895.2
Restricted time deposits — current portion	0.0	0.0	0.0	0.0
Available-for-sale financial assets — current portion	—	247.0	89.1	59.2
Trade receivables	300.7	314.7	370.9	406.2
Inventories	73.4	85.5	112.0	108.0
Prepaid taxes — current portion	102.6	74.1	72.3	46.6
Recoverable taxes	10.5	12.5	8.8	14.3
Other receivables	4.4	6.7	6.0	2.7
Derivative financial instruments — current portion	4.0	3.3	—	—
Advances and prepayments — current portion	19.3	28.0	12.5	11.7
Other current assets	0.9	0.4	0.7	0.2
Total current assets	1,592.7	1,979.2	1,600.3	1,544.2
Non-Current Assets				
Restricted time deposits — non-current portion	3.1	8.1	15.6	24.4
Available-for-sale financial assets — non-current portion	—	6.8	14.9	28.3
Investments in joint ventures	46.7	45.8	576.9	617.1
Advances and prepayments — non-current portion	37.5	38.0	56.5	65.9
Prepaid taxes — non-current portion	37.9	43.5	33.5	30.6
Mining properties	2,436.6	2,355.3	2,296.7	2,265.1
Fixed assets	1,544.2	1,506.6	1,609.7	1,715.5
Goodwill	793.6	793.6	793.6	793.6
Deferred tax assets	3.8	8.8	27.3	34.4
Other non-current assets	26.2	28.5	35.6	38.1
Total non-current assets	4,929.5	4,835.0	5,460.5	5,613.2
Total Assets	6,522.3	6,814.1	7,060.8	7,157.4
LIABILITIES				
Current Liabilities				
Trade payables	207.8	279.2	341.8	328.4
Dividends payable	70.9	111.8	83.8	—
Accrued expenses	29.0	37.4	52.2	63.7
Short-term employee benefits liabilities	1.6	2.7	3.3	2.4
Taxes payable	119.0	56.7	82.9	172.3
Royalties payable	42.0	31.3	8.5	52.1
Current maturity of long-term borrowings:				
Finance lease payables	30.9	35.6	37.4	42.2
Bank loans	122.9	201.2	182.7	364.3
Derivative financial instruments — current portion	—	—	17.6	8.4
Other liabilities	20.6	17.5	6.3	10.2
Total current liabilities	644.6	773.3	816.4	1,044.1
Non-Current Liabilities				
Loans from a third party	15.5	15.9	13.4	13.4
Long-term borrowings, net of current maturities:				
Finance lease payables	39.2	49.6	125.3	130.9
Bank loans	1,241.2	1,090.8	1,072.5	794.5
Derivative financial instruments — non-current portion	—	—	2.5	6.8
Deferred tax liabilities	653.4	612.3	539.5	523.7
Post-employment benefits liabilities	49.5	64.9	63.2	70.8
Provision for mine rehabilitation, reclamation and closure	93.0	115.7	125.1	129.8
Total non-current liabilities	2,091.8	1,949.2	1,941.6	1,669.9
Total Liabilities	2,736.4	2,722.5	2,758.1	2,714.0

	As of December 31,			As of June 30,
	2016	2017	2018	2019
	(US\$ in millions)			
Consolidated Statements of Financial Position:				
EQUITY				
Equity attributable to owners of the parent entity				
Share capital — authorized 80,000,000,000 shares; issued and fully paid 31,985,962,000 shares at par value of Rp100 per share	342.9	342.9	342.9	342.9
Additional paid-in capital, net	1,154.5	1,154.5	1,154.5	1,154.5
Difference in value from transactions with non-controlling interests	7.1	4.1	0.5	0.6
Retained earnings	1,627.6	1,966.7	2,161.3	2,333.1
Other comprehensive income/(loss), net	14.3	0.0	(8.8)	(58.0)
Total equity attributable to owners of the parent entity	3,146.5	3,468.3	3,650.4	3,773.1
Non-controlling interests	639.4	623.4	652.3	670.2
Total Equity	3,785.9	4,091.6	4,302.7	4,443.4
Total Liabilities and Equity	6,522.3	6,814.1	7,060.8	7,157.4

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Consolidated Statements of Cash Flows Data:					
Net cash flows provided from operating activities	675.5	853.7	905.9	513.8	537.8
Net cash flows used in investing activities	(228.4)	(433.4)	(793.2)	(209.1)	(229.6)
Net cash flows used in financing activities	(73.0)	(288.7)	(378.4)	(440.1)	(346.0)
Net increase/(decrease) in cash and cash equivalents	374.1	131.6	(265.6)	(135.3)	(37.8)
Cash and cash equivalents at the end of the year/period	1,076.9	1,206.8	927.9	1,058.0	895.2

Non-GAAP Financial Measures

	As of and for the				
	Years Ended December 31,			Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions, other than % and multiples)				
Operational EBITDA ⁽¹⁾	892.4	1,313.7	1,407.7	593.3	690.6
Operational EBITDA margin (%) ⁽²⁾	35.4	40.3	38.9	36.8	38.9
Total debt ⁽³⁾	1,449.7	1,393.0	1,431.3	1,264.3	1,345.3
Total net debt ⁽⁴⁾	372.7	Net Cash	414.3	117.0	390.8
Total debt to Operational EBITDA ⁽⁵⁾	1.6x	1.1x	1.0x	n.a.	0.9x ⁽⁶⁾
Total net debt to Operational EBITDA ⁽⁷⁾	0.4x	Net Cash	0.3x	n.a.	0.3x ⁽⁶⁾
Finance costs ⁽⁸⁾	50.0	53.0	65.1	29.7	34.3
Operational EBITDA to finance costs ⁽⁹⁾	17.8x	24.8x	21.6x	20.0x	20.1x

- (1) We define Operational EBITDA as profit for the year/period excluding (i) depreciation and amortization, (ii) tax expense, (iii) finance costs, (iv) finance income (v) foreign exchange loss/(gain), net and (vi) non-operational transactions. Operational EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. You should not compare our operational EBITDA to operational EBITDA presented by other companies because not all companies use the same definition. Operational EBITDA as presented in this Offering Memorandum is calculated differently from “Consolidated EBITDA” as defined in the indenture governing the Notes.

The following table reconciles our profit for the year/period under Indonesian FAS to our definition of Operational EBITDA for the periods indicated:

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Profit for the year/period	340.7	536.4	477.5	224.0	321.2
Depreciation and amortization ^(a)	333.6	334.9	353.8	182.4	176.7
Tax expense ^(b)	210.5	397.8	348.9	164.4	170.0
Finance costs	50.0	53.0	65.1	29.7	34.3
Finance income	(9.1)	(18.7)	(23.6)	(12.5)	(12.0)
Foreign exchange loss/(gain), net	(2.1)	1.4	6.6	4.5	0.4
Non-operational transactions ^(c)	(31.2)	8.9	179.4	0.8	—
Operational EBITDA	892.4	1,313.7	1,407.7	593.3	690.6

(a) Depreciation of fixed assets and amortization of mining properties.

(b) Includes income tax expense and final tax.

(c) Non-operational transactions generally reflect the addition/(reversal) of impairment of financial and non-financial assets, gain from acquisition of subsidiaries and transaction costs related to the acquisition of an associate.

(2) We define Operational EBITDA margin as Operational EBITDA divided by revenue.

(3) Total debt is the sum of (i) current and non-current portions of finance lease payables and bank loans and (ii) loans from a third party.

(4) We define Total net debt as total debt less cash and cash equivalents and the current portion of available-for-sale financial assets.

(5) We define Total debt to Operational EBITDA as Total debt divided by Operational EBITDA.

(6) This information is presented here for the period representing the last twelve months ended June 30, 2019 and represents the sum of the Operational EBITDA of the Group for the year ended December 31, 2018 and the six months ended June 30, 2019, minus the Operational EBITDA of the Group for the six months ended June 30, 2018 as the divisor to Total debt or Total net debt, as applicable, as of June 30, 2019.

(7) We define Total net debt to Operational EBITDA as Total net debt divided by Operational EBITDA.

(8) We define finance costs as interest expense, bank charges, amortization of deferred financing costs and net realized gain/(loss) from interest rate swaps.

(9) We define Operational EBITDA to finance costs as Operational EBITDA divided by finance costs.

Operating Data

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Key Operating Metrics					
Coal production (MT)	52.6	51.8	54.0	24.1	28.5
Coal sales (MT)	54.1	51.8	54.4	23.8	28.8
Overburden removal (Mbcm)	234.1	238.7	273.5	123.0	127.5
Average blended selling price (US\$ per tonne) ⁽¹⁾	43.4	58.7	61.5	62.5	56.8
Average strip ratio (x)	4.5	4.6	5.1	5.1	4.5

(1) We calculate average blended selling price per tonne by dividing total consolidated revenue of the coal segment by tonnes of total consolidated coal sales for the years/periods presented, which includes sales from all of our operating mines on a consolidated basis.

Adaro Indonesia Key Financial and Operating Metrics

The following table presents Adaro Indonesia's key financial and operational metrics for the years ended December 31, 2016, 2017 and 2018 and for the six months ended June 30, 2018 and 2019. The historical results of operations and financial position are no guarantee of Adaro Indonesia's future operating performance.

As Adaro Indonesia is one of our consolidated subsidiaries, reference should be made to our consolidated financial and operating information presented elsewhere in this Offering Memorandum, in addition to this information which presents Adaro Indonesia's standalone financial information and operating data prior to the elimination of intragroup transactions and balances.

	As of and for the				
	Years Ended December 31,			Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Key Financial Metrics					
Revenue (US\$ in millions)	2,284.8	2,922.2	3,249.1	1,433.7	1,546.4
Profit for the year/period (US\$ in millions)	248.9	453.1	438.0	199.8	154.6
Total assets (US\$ in millions)	2,672.6	2,299.2	2,252.0	2,066.5	2,370.1
Total liabilities (US\$ in millions)	1,790.9	1,703.2	1,644.5	1,597.9	1,620.7
Total debt ⁽¹⁾ (US\$ in millions)	1,133.7	1,030.4	895.2	962.8	817.6
Total equity (US\$ in millions)	881.7	596.0	607.5	468.7	749.4
Adaro Indonesia Operational EBITDA ⁽²⁾ (US\$ in millions)	584.5	941.8	882.9	414.7	413.2
Adaro Indonesia Operational EBITDA margin ⁽³⁾ (%)	25.6%	32.2%	27.2%	28.9%	26.7%
Adaro Indonesia Operational EBITDA to finance costs ⁽⁴⁾	14.4x	21.5x	16.7x	16.9x	16.1x

(1) Total debt is the sum of current and non-current portions of bank loans.

(2) We define Adaro Indonesia Operational EBITDA as profit for the year/period excluding (i) tax expense, (ii) finance costs, (iii) depreciation and amortization, (iv) foreign exchange loss/(gain), net, (v) finance income and (vi) non-operational transaction. Adaro Indonesia Operational EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. You should not compare Adaro Indonesia Operational EBITDA to operational EBITDA presented by other third party companies because not all companies use the same definition. Adaro Indonesia Operational EBITDA as presented in this Offering Memorandum is calculated differently from "Consolidated EBITDA" as defined in the indenture governing the Notes.

The following table reconciles the profit for the year/period of Adaro Indonesia under Indonesian FAS to Adaro Indonesia's definition of Adaro Indonesia Operational EBITDA for the years/periods indicated:

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Profit for the year/period	248.9	453.1	438.0	199.8	154.6
Depreciation and amortization ^(a)	122.1	99.6	77.4	42.2	37.6
Tax expense	207.6	375.4	355.8	162.4	143.2
Finance costs ^(b)	40.7	43.9	52.8	24.6	25.7
Finance income	(33.5)	(31.2)	(38.7)	(14.4)	(25.7)
Foreign exchange (gain)/loss, net	(1.3)	1.0	(2.4)	0.1	4.4
Non-operational transaction ^(c)	—	—	—	—	73.4
Adaro Indonesia Operational EBITDA	584.5	941.8	882.9	414.7	413.2

(a) Depreciation of fixed assets and amortization of mining properties.

(b) We define finance costs as interest expense, bank charges, amortization of deferred financing costs and net realized gain/(loss) from interest rate swaps.

(c) Non-operational transaction reflects the accrual of a compensation fee on contract termination with PT Jasapower Indonesia, a subsidiary of the Parent Guarantor, to terminate a contract for out-of-pit crushing and conveyor costs which was due to expire in September 2022.

(3) We define Adaro Indonesia Operational EBITDA margin as Adaro Indonesia Operational EBITDA divided by Adaro Indonesia's revenue.

(4) We define Adaro Indonesia Operational EBITDA to finance costs as Adaro Indonesia Operational EBITDA divided by finance costs. Adaro Indonesia Operational EBITDA to finance costs as presented in this Offering Memorandum is calculated differently from "Fixed Charge Coverage Ratio" as defined in the indenture governing the Notes.

Operating Data

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Key Operating Metrics					
Coal production (MT)	50.8	47.7	48.3	21.3	25.5
Coal sales ⁽¹⁾ (MT)	53.1	50.7	53.9	23.5	28.0
Overburden removal (Mbcm)	229.3	225.3	246.5	112.8	114.7
Average selling price (US\$ per tonne) ⁽²⁾	43.0	57.6	60.3	61.0	55.2
Average strip ratio (x)	4.5	4.7	5.1	5.3	4.5

(1) Coal sales (MT): including tonnage purchased from Balangan Coal Companies.

(2) We calculate average selling price per tonne by dividing revenue by tonnes of coal sales for the years/periods presented.

SIS Key Financial and Operating Metrics

The following table presents the key financial and operational metrics of SIS for the years ended December 31, 2016, 2017 and 2018 and for the six months ended June 30, 2018 and 2019. The historical results of operations and financial position are no guarantee of the future operating performance of SIS.

As SIS is one of our consolidated subsidiaries, reference should be made to our consolidated financial and operating information presented elsewhere in this Offering Memorandum, in addition to this information which presents SIS's standalone financial information and operating data prior to elimination of intragroup transactions and balances, in particular a large proportion of SIS's revenue, overburden removal and coal transported is attributable to business with Adaro Indonesia.

	As of and for the				
	Years Ended December 31,			Six Months Ended June 30,	
	2016	2017	2018	2018	2019
(US\$ in millions)					
Key Financial Metrics					
Revenue	443.2	537.4	711.0	292.0	348.0
Total assets	470.2	532.5	757.7	537.1	762.0
Total liabilities	283.4	389.8	587.2	423.2	587.9
Total debt ⁽¹⁾	202.4	249.7	434.2	192.9	429.9
Total equity	186.8	142.7	170.5	113.8	174.1
SIS Operational EBITDA ⁽²⁾	111.2	102.9	162.4	23.9	75.7
SIS Operational EBITDA Margin (%) ⁽³⁾	25.1	19.1	22.8	8.2	21.8

(1) Total debt is the sum of current and non-current portions of bank loans and finance lease payables.

(2) We define SIS Operational EBITDA as SIS' profit/loss for the year/period excluding (i) tax expense/(benefit), (ii) finance costs, (iii) depreciation, (iv) foreign exchange loss/(gain), net, and (v) finance income. SIS Operational EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. You should not compare SIS Operational EBITDA to operational EBITDA presented by other third party companies because not all companies use the same definition.

The following table reconciles the profit for the year/period of SIS under Indonesian FAS to SIS' definition of SIS Operational EBITDA for the years/periods indicated.

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Profit/(loss) for the year/period	30.3	21.5	28.5	(29.3)	3.6
Depreciation ^(a)	66.4	69.0	111.6	60.1	59.4
Tax expense/(benefit) ^(b)	9.8	5.5	10.3	(9.8)	2.0
Finance costs ^(c)	7.6	8.3	15.4	4.9	11.6
Finance income	(0.5)	(0.6)	(0.7)	(0.5)	(0.5)
Foreign exchange gain, net	(2.4)	(0.8)	(2.7)	(1.5)	(0.4)
SIS Operational EBITDA	111.2	102.9	162.4	23.9	75.7

(a) Depreciation of fixed assets.

(b) Tax expense/(benefit) includes income tax expense and final tax.

(c) We define finance costs as interest expense, bank charges and amortization of deferred financing costs.

(3) We define SIS Operational EBITDA Margin as SIS Operational EBITDA divided by SIS' revenue.

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Key Operating Metrics					
Overburden removal (Mbcm)	163.1	179.2	220.6	93.7	107.9
Coal transported (MT)	35.3	35.4	44.9	20.1	23.6

RISK FACTORS

This Offering Memorandum contains forward-looking statements relating to events that involve risks and uncertainties. Prospective purchasers of the Notes should carefully consider the risk factors set forth below, as well as the other information contained elsewhere in this Offering Memorandum. The risks described below are not the only ones that may affect our businesses or the Notes. In general, investing in securities of issuers or guarantors in emerging market countries such as Indonesia involves risks not typically associated with investing in the securities of companies in more developed economies.

RISKS RELATING TO OUR BUSINESS AND OPERATIONS

Risks Relating to our Various Businesses

Our various businesses are concentrated within or primarily support the coal mining industry in Indonesia and coal-fired power industry in Asia. Any decline in these industries could materially adversely affect our business, financial condition, results of operations and prospects

Our operations are concentrated within, or primarily support the coal mining industry in Indonesia and coal-fired power industry in Asia. While we seek to diversify our operations to additional industries, the vast majority of our revenues, and all of Adaro Indonesia's revenues, are sourced directly or indirectly from thermal coal mining in Indonesia.

Demand for our coal products is also affected by capital spending by large mining, steel and energy companies, including national and international companies, which is, in turn, affected by trends in global and regional coal prices. Perceptions of longer-term coal prices by mining, steel or energy companies can cause these companies to reduce or defer major expenditures, and hence their demand for our coal, given the long-term nature of many such large scale projects. Prices for coal are subject to large fluctuations in response to relatively minor changes in the supply of and demand for coal, market uncertainty and a variety of other factors that are beyond our control. Factors affecting the prices of coal include:

- economic growth and related demand for coal in China, India, North Asia and Southeast Asia;
- worldwide political, military and economic conditions;
- the cost of producing and delivering coal;
- population changes and the resulting changes in energy demands;
- the level of demand for coal;
- the level of demand and price for steel;
- governmental regulations or policies, including the policies of governments regarding the use of energy and the exploration for and production and development of their coal reserves;
- a reduction in energy demand as a result of energy taxation or a change in consumer spending patterns;
- global weather conditions and natural disasters;
- potential acceleration of the development of alternative fuels;
- a decline of the steel making industries; and
- environmental regulation, including limitations on fossil fuel consumption based on concerns about its relationship to climate change.

Historically, the markets for coal have been volatile, and they are likely to continue to be volatile in the future. See “— Operational Risks Relating to Our Coal Mining Business — Coal prices are cyclical and subject to significant fluctuations.”

Demand for our coal may also be materially and adversely affected by the consolidation of our customers, which could cause customers to reduce their capital spending, thereby reducing demand for our coal, and result in customer personnel changes, thereby affecting the timing of contract negotiations and claim negotiations and settlements.

Any decline in the coal-fired energy or steel making industries could materially adversely affect our business, financial condition, results of operations and prospects.

We depend on key plant, equipment, machinery and other supporting facilities to conduct our mining and other operations

Our mining and other operations depend on key plant, equipment and machinery, including mining equipment and conveyors, coal crushing plants, tugs and barges, vessels, channel dredging equipment, coal ship loaders, shipping terminals, transshipment facilities, and other supporting facilities such as bridges and roads. Our power operations rely on power plants, including turbines, transmission and transformation equipment and other electrical equipment. Damage to, failure of, or operational difficulties with plant, equipment and machinery or the other supporting facilities, whether operated by us or our contractors, could materially and adversely affect our businesses, financial conditions, results of operations and prospects.

Decreases in demand for electricity or steel resulting from economic, weather or other conditions could adversely affect coal and electricity prices

Demand for thermal coal and for the electricity generated from thermal coal by our customers and our power joint ventures fluctuates. Our thermal coal is primarily used as fuel for electricity generation. Overall economic activity and the associated demands for power by industrial users can have significant effects on overall electricity demand. An economic slowdown can significantly slow the growth of electrical demand and decrease demand for coal. During the past several years, international demand for thermal coal has been driven, in significant part, by fluctuations in demand due to economic growth in China, India and Southeast Asia as well as other developing countries. Demand for metallurgical coal is closely tied to demand for steel, and hence construction activity and the economic cycle, in particular in India, Japan and South Korea where we sell much of our metallurgical coal. Significant declines in the rates of economic growth in these regions could decrease international demand for Indonesian coal, which may have an adverse effect on our realized coal prices.

Weather patterns in the different geographical areas in which our power generation customers conduct their businesses can also greatly affect electricity, and hence thermal coal demand. Extreme temperatures, both hot and cold, cause increased power usage and, therefore, increased generating requirements from all sources. Mild temperatures, on the other hand, result in lower electricity demand, which allows generators to choose among alternative fuel sources. Any downward pressure on coal prices, due to decreases in overall electricity demand or otherwise, including changes in weather patterns, would materially and adversely affect our businesses, financial conditions, results of operations and prospects.

Adaro Indonesia is the key customer for most of our other subsidiaries and these supporting businesses would be adversely affected if Adaro Indonesia's coal production materially decreased

Most of our subsidiaries rely upon Adaro Indonesia's business for a significant portion of their revenues. Our operations are dependent on the integration of such subsidiaries to benefit from operating efficiently. In addition, certain financial metrics in this Offering Memorandum (such as Adaro Indonesia Operational EBITDA and SIS Operational EBITDA) are presented on a gross basis, prior to intragroup eliminations and reference should be made to our consolidated financial and operating information presented elsewhere in this Offering Memorandum, and not solely to information presented elsewhere in this Offering Memorandum which presents standalone financial information of certain of our consolidated subsidiaries. If Adaro Indonesia's business declines for any reason, it would materially and adversely affect our business, financial condition, results of operations and prospects.

If we are unable to attract and retain a sufficient number of affordable, trained engineers and other skilled workers, our ability to pursue projects and effectively execute our growth strategy may be adversely affected and our costs may increase

According to IHS Markit, demand for thermal coal in Indonesia is expected to continue to grow in connection with the country's increased power demand. Our ability to capture any additional demand for coal or power will be confined by limitations on the number of competent and skilled human resources. We believe our success depends upon our ability to attract, develop and retain a sufficient number of affordable, trained engineers and other skilled workers that can execute our services, often in remote locations under difficult working conditions. The demand for trained engineers and other skilled workers is currently high and is expected to remain so for the foreseeable future. If we are unable to attract and retain a sufficient number of skilled personnel at affordable levels of compensation, our ability to pursue projects and effectively execute our growth strategy may be materially and adversely affected and the costs of performing our existing and future projects may increase, which may adversely impact our business, financial condition, results of operations and prospects.

Further, we are dependent on certain key senior management employees, including members of our Board of Directors. If we lose the services of any of our key senior management personnel, it could be very difficult to find, relocate and integrate adequate replacement personnel into our operations, which could seriously hamper our operations and the growth of our business. We are also dependent on attracting qualified employees to provide services in relation to all of our operations.

If we fail to integrate the businesses or assets that we have acquired or may acquire in the future, it could negatively impact our business

We have engaged in significant acquisitions, such as our investments relating to our mining operations in the Balangan Coal Companies, AMC and the Kestrel Coal Mine as well as financings, particularly in relation to our non-consolidated power generation business. We also expended significant resources to build the out-of-pit overburden crusher and conveyor system under PT Jasapower Indonesia to improve efficiency along the coal supply chain. We will continue to review future acquisition opportunities. We cannot assure you that we will continue to locate and secure acquisition targets on terms and conditions that are acceptable to us. There are several risks in acquisitions, including:

- the uncertainties in assessing the strengths and potential profitability and identifying the extent of all risks and liabilities of acquisition targets or investment projects;
- the difficulty and expense that we incur in connection with the acquisition or investment;
- the difficulty and expense that we incur in the subsequent assimilation of the operations of the acquired company into our operations;
- the difficulty in operating acquired businesses;
- the diversion of management's attention from other business concerns; and
- the potential loss of key employees previously employed at acquired companies.

We cannot assure you that any acquisition we may make will be successfully integrated into our ongoing operations or that we will achieve our business goals and objectives from the acquisition. In particular, much of our historical operations are focused on thermal coal mining in Indonesia, which may not translate to metallurgical coal mining, or mines in other jurisdictions. If the operations of an acquired business do not meet expectations or is no longer consistent with our strategy, we may be required to restructure the acquired business or write-off the value of some or all of the constructed or acquired assets, which may materially and adversely affect our business, financial condition, results of operations and prospects.

The Group's tax and royalty liability could be subject to government adjustment

All judgments and estimates made by management in calculating taxable income may be challenged by the Directorate General of Taxation ("DGT"). The DGT is authorized under Indonesia's income tax law to

re-determine the amount of taxable income of a taxpayer, which includes affiliated transactions and transfer pricing issues. As a result, the ultimate tax determination may become uncertain. The resolution of tax positions taken by us or Adaro Indonesia may take several years to complete and, in some cases, it is difficult to predict the ultimate outcome. Where the final outcome of these matters is different from the amounts initially recorded, such differences will have an impact on the income tax and deferred income tax provision in the year in which such determination is made.

Under the Coal Cooperation Agreement, Adaro Indonesia has an obligation to make royalty payments related to its coal sales. The calculation of such royalty payments may be challenged by the Financial and Development Supervisory Board (*Badan Pemeriksa Keuangan Republic Indonesia*, “BPKP”) or the Audit Board of the Republic of Indonesia (*Badan Pemeriksa Keuangan*, “BPK”).

There is no guarantee that the authorities mentioned above would not increase Adaro Indonesia’s or our taxable income and thereby increase its related tax and royalty liabilities in future years for any of its existing or future affiliated transactions. If this occurs, our profitability may be adversely affected.

A certain portion of our operations are conducted by joint ventures that we do not control or may not operate solely for our benefit, and we may in the future conduct more of our business through such joint ventures

We have entered into several joint ventures with third parties as part of our business and growth strategy. In our joint ventures we share ownership and management of a company with one or more parties who may not have the same goals, strategies, priorities, or resources that we do. In our joint ventures, we are required to pay more attention to our relationship with our co-owners, and if a co-owner changes, our relationship may be materially and adversely affected. The success of our joint ventures depends significantly on the satisfactory performance by our co-owners of their contractual and other obligations. As we do not control our co-owners, we face the risk that they may not fulfill their obligations, financial or otherwise. In such a circumstance, we may be required to make additional investments in our joint ventures to maintain our equity interest and any failure to make such investments, due to a lack of funds or any other reason, could significantly dilute our ownership in such joint ventures or result in such joint ventures being unable to meet their debt service requirements, potentially allowing their lenders may foreclose on our shares in them, any of which could have a material and adverse effect on our business, financial condition, cash flows and results of operation.

Any disputes that may arise between us and our joint venture partners may cause delay in completion, suspension or complete abandonment of a project or our investment in the project. Further, we may, in certain circumstances, be liable for the actions of our joint venture partners, or be limited in our ability to increase our equity interest or divest our equity interest in the joint venture, any of which could materially and adversely affect our business, financial condition, cash flows and results of operations.

Regulatory Risks Relating to Our Coal Mining Business

The Coal Cooperation Agreement, which provides Adaro Indonesia’s mining concession rights, may expire or be terminated, or may not be extended by the Government under certain circumstances or, if the Coal Cooperation Agreement is extended, there is no certainty on the terms and conditions under the extension regime

Adaro Indonesia holds contractual rights to mine coal through its coal cooperation agreement (the “Coal Cooperation Agreement”) with the Government, which provides Adaro Indonesia a 30-year right to mine coal within a specified concession area and expires in October 2022 unless extended in accordance with the terms of the Coal Cooperation Agreement and Government Regulation No. 23 of 2010 on the Implementation of Mineral and Coal Mining Business Activities, as lastly amended by Government Regulation No. 8 of 2018 (“GR 23”) and the Ministry of Energy and Mineral Resources (the “MEMR”) Regulation No. 11 of 2018 on Procedures for Granting Area, Licenses, and Reporting on Mineral and Coal Mining Business Activities, as amended with MEMR Regulation No. 22 of 2018 and lastly amended by MEMR Regulation No. 51 of 2018 and MEMR Decree No. 1796K/30/MEM/2018 on Guidance of the Implementation of Application, Evaluation and Issuance of Licenses in the Mineral and Coal Sector.

The Coal Cooperation Agreement may be terminated earlier than the specified expiry date by the MEMR if Adaro Indonesia fails to satisfy its major contractual obligations under the Coal Cooperation Agreement, and fails to remedy the breach within the specified period in the Coal Cooperation Agreement. As Adaro Indonesia conducts substantially all of its mining operations through several mining contractors, if these contractors fail to perform under their operating agreements, such failure may cause Adaro Indonesia to be unable to satisfy its contractual obligations under the Coal Cooperation Agreement.

GR 23 provides that the Coal Cooperation Agreement will remain valid for the remainder of its term and may be extended into the form of license, i.e., an IUPK OPP, upon the expiry of the Coal Cooperation Agreement. In order to extend an expiring coal cooperation agreement, GR 23 requires a coal cooperation agreement holder to apply for an IUPK OPP at the earliest two (2) years before the expiration of the coal cooperation agreement, but no later than six (6) months before the expiration of the coal cooperation agreement. In Adaro Indonesia's case, with respect to the Coal Cooperation Agreement, this means that the earliest Adaro Indonesia could apply for an IUPK OPP is October 2020.

The application to obtain the IUPK OPP as an extension of any coal cooperation agreement must comply with the requirements set forth under GR 23 and other prevailing regulations. GR 23 provides that the MEMR, in granting the IUPK OPP shall consider the national interest and the potential reserves of coal and MEMR may reject an application for an IUPK OPP if, based on its evaluation, a coal cooperation agreement holder fails to demonstrate good mining business performance.

Some government officials, scholars, and other third parties in Indonesia may challenge the validity of the extension of a coal cooperation agreement into the form of IUPK OPP. The regulatory framework of the extension of a coal cooperation agreement may not provide sufficient clarity on whether the current terms and conditions under a coal cooperation agreement (either entirely or partly) will be adopted in an IUPK OPP and the interpretation and implementation of such provisions relating to the extension of a coal cooperation agreement may be ambiguous and, as a result, the decisions of the various bodies may be difficult to predict.

The Coal Cooperation Agreement also fixes the rate of corporate tax applicable to Adaro Indonesia and we anticipate that if extended into an IUPK OPP the rate of corporate tax applicable to Adaro Indonesia would no longer be fixed, and would be charged at the rate of tax applicable to corporations in Indonesia, as amended from time to time.

We cannot assure you that government officials or others will not challenge the extension of the Coal Cooperation Agreement for political or other reasons, that the Government will not terminate the Coal Cooperation Agreement, or that the Government will grant the extension of the Coal Cooperation Agreement into an IUPK OPP. In addition, even if the extension in the form of IUPK OPP is granted, there is no assurance that the current terms and conditions under a coal cooperation agreement (either entirely or partly) will be adopted in an IUPK OPP, such as, the existing size of the mining area that will be maintained by the Government, tax and royalty scheme, the scheme of usage of the land, buildings, infrastructure, machinery and equipment which were purchased by Adaro Indonesia pursuant to the terms of the Coal Cooperation Agreement and are currently used by Adaro Indonesia for its operations which are the legal property of the Government (state-owned assets) pursuant to the terms of the Coal Cooperation Agreement. If the Coal Cooperation Agreement is terminated for any reason or fails to be extended into an IUPK OPP, or any other form of license that would enable Adaro Indonesia to continue its mining operations, Adaro Indonesia will be unable to mine coal within the concession areas and our business, financial condition and results of operations would be materially and adversely affected, which, depending on the circumstances, could result in an Event of Default under the Notes.

Our operations in Indonesia are dependent on our ability to obtain, maintain and renew necessary licenses, agreements and approvals

In addition to the Coal Cooperation Agreement, our operations in Indonesia require various licenses and approvals, including central or regional government licenses and approval with respect to general corporate, mining, capital investment, manpower, environmental, land utilization, transportation, harbor and employment. We must renew our licenses and approvals as they expire, as well as obtain new licenses and approvals when required. Failure to do so may have an adverse impact on our coal supply chain and our mining operations and expansion plans. If the relevant government authorities revoke or refuse to issue or renew necessary licenses and

approvals, our business, financial condition, results of operations, and prospects would be materially and adversely affected.

Further, pursuant to the Coal Cooperation Agreement, Adaro Indonesia is required to obtain approval from the Government each year for its work programs and budget and any revisions thereto. Adaro Indonesia may not be able to obtain such approval on favorable terms or at all, and if this occurs, our business, financial condition, results of operations and prospects would be materially and adversely affected.

The regulatory framework governing the Indonesian mineral resource and mining industry sectors has undergone significant changes, and could undergo significant changes in the future and adverse changes or developments in mining laws or regulations may be difficult to comply with, may significantly increase our operating costs or may otherwise adversely affect our business, financial condition, results of operations and prospects

The mining industry and mining activities are subject to extensive regulation within Indonesia, and there have been major developments in laws and regulations applicable to coal concession holders and mining service operators. The Government regulates coal mining activity primarily through the Ministry of Energy and Mineral Resources, as well as the Ministry of Finance, Ministry of Environment and Forestry, the State Ministry for Environmental Affairs and the Investments Coordinating Board. In addition, the regional governments where Adaro Indonesia's concession area is located can implement regulations which may affect our business.

Since the Coal Cooperation Agreement came into effect in 1982, the Government has promulgated many new laws and regulations affecting the Indonesian mining industry. In some cases, these new laws and regulations have not been consistent with the terms of the original Coal Cooperation Agreement and the application of these changes has been unclear.

In particular, the enactment of Law No. 4 of 2009 on Coal and Mineral Mining on January 12, 2009 (the "Mining Law") replaced the previous regulatory framework. The Mining Law, which sets out the regulatory framework for the mining industry in Indonesia, only contains substantive principles and leaves many specific issues to be addressed in implementing regulations. For instance, under the Mining Law, coal and other minerals mined within Indonesia must be processed domestically. However, for coal products, there is no specific regulation setting out the minimum standard of coal that can be exported. In addition, Indonesian coal producers are required to obtain permit from the Ministry of Energy and Mineral Resources for the involvement of the subsidiaries or affiliates in mining services activities conducted within its mining area. The Mining Law provides for implementing regulations to be issued at a later date with respect to these provisions.

Any regulatory changes affecting coal concession holders, including those set out in the implementing regulations, may affect our business as a mining services contractor as well. Specifically with respect to mining services, the MEMR issued Regulation No. 28 of 2009 on Operation of Mineral and Coal Mining Services, which was later amended in 2012 pursuant to MEMR Regulation No. 24 of 2012 as revoked by MEMR Regulation No. 34 of 2017 on Licensing in the Fields of Mineral and Coal Mining ("Regulation 34"). Further, Regulation 34 is revoked by MEMR Regulation No. 11 of 2018 on Procedures for Granting Area, Licenses, and Reporting on Mineral and Coal Mining Business Activities, as amended with MEMR Regulation No. 22 of 2018 and lastly amended by MEMR Regulation No. 51 of 2018 (the "MEMR Regulation 11 of 2018"). The MEMR Regulation 11 of 2018 is one of the implementing regulations under the Mining Law and they require, among other things, that the holder of a Production-Operation IUP and IUPK allowed to hire mining services companies to conduct only overburden stripping and the prohibition for a holder of a Production-Operation IUP and IUPK to engage or involve its subsidiary or affiliate engaging in the business of mining service without a prior consent from MEMR.

Other legislative developments include a potential amendment of the Mining Law. It is unclear to what extent the Mining Law will be changed and whether and how any such amendment will affect the regulatory framework regarding the extension of our existing Coal Cooperation Agreement which is expiring in 2022. The amendment could possibly also touch material issues such as the regulatory framework of extension of a coal cooperation agreement that will expire.

If we are unable to comply with the Mining Law and its implementing regulations, including the MEMR Regulation 11 of 2018 and any subsequent amendments and/or any enactments of related laws and regulations, the contractors we engage, including SIS, may be subject to administrative sanctions in the form of written warnings, temporary suspensions and the revocation of our mining or mining services licenses. A court or an administrative or regulatory body may in the future render interpretations or may create increase of costs or additional risk for our operation of these laws and regulations, or issue new or modified regulations, that differ from our interpretations, which could materially and adversely affect our business, financial condition, results of operations and prospects. For more information regarding the Mining Law and other applicable regulations, see “Regulation.”

In 2008, the Ministry of Energy and Mineral Resources requested that Indonesian coal producers renegotiate existing term coal supply contracts to match then current market prices. Those Indonesian coal producers were instructed by the Ministry of Energy and Mineral Resources that they would be required to suspend shipments if they failed to comply with this request. The Government may again disrupt our contracts with customers in the future which may negatively impact our customer relationships or lead to claims or litigation by customers.

Compliance with environmental standards related to coal combustion may cause our customers to switch to alternative fuels and thereby decrease the market demand for our coal

Coal contains impurities, including sulfur, mercury, chlorine and other elements and compounds, many of which are released into the air when coal is burned. Stricter environmental regulations of emissions from coal-fired electricity generation plants and other industrial plants could increase the costs of using coal, thereby reducing demand for coal as a fuel source and adversely affecting our coal sales and coal prices, which could materially and adversely affect our businesses, financial condition, results of operations and prospects. Furthermore, a change in emissions guidelines in certain countries may indirectly restrict or prohibit the use of coal-fired power plants, which would have an adverse impact on coal demand.

Indonesia and many other nations are signatories to international agreements related to Climate Change including the 1992 United Nations Framework Convention on Climate Change, which is intended to limit or capture emissions of greenhouse gas, such as carbon dioxide, the 1997 Kyoto Protocol which established a potentially binding set of emissions targets for developed nations and most recently the 2016 Paris Agreement, which extended the potentially binding set of emissions targets to all nations. The specific emissions targets vary from country to country. The enactment of the such international agreements in domestic legislation or other comprehensive legislation focusing on greenhouse gas emissions could restrict the use of coal in primary markets serviced by us. Other efforts to reduce emissions of greenhouse gas and initiatives in various countries to encourage the use of natural gas also may adversely affect the use of coal as an energy source and could materially and adversely affect our businesses, financial conditions, results of operations and prospects.

Under the terms of Coal Cooperation Agreement certain assets that Adaro Indonesia purchases for its operations based on Adaro Indonesia’s work program become state-owned assets; therefore, Adaro Indonesia’s creditors would be unable to foreclose on such assets in a bankruptcy or liquidation

Pursuant to the Coal Cooperation Agreement, certain assets that Adaro Indonesia purchases according to its work program become state-owned assets. Prior to the amendment of the Coal Cooperation Agreement on January 17, 2018, the assets in question included all materials, supplies, plant and equipment, while after such amendment of the Coal Cooperation Agreement, such state-owned assets are the land, buildings, infrastructure, machinery and equipment. These assets become state-owned assets (a) when they arrive in Indonesia’s port if purchased from overseas; or (b) at the time of purchase, if made domestically.

Although the above mentioned assets (as specified respectively prior to and following the amendment of Coal Cooperation Agreement) are generally classified as assets of Adaro Indonesia on its balance sheet, Adaro Indonesia does not possess ownership title to such assets and if Adaro Indonesia is declared bankrupt, liquidated or wound-up, the assets would be unavailable to satisfy outstanding claims of its creditors, including any of Adaro Indonesia’s obligations under the Notes.

Our mining area overlaps with areas owned by third parties and our operations may be affected by mining and other permits issued by local governments that conflict with our concessions

Under the Indonesian constitution, all mineral resources are deemed to be national assets and are therefore controlled by the Government. Under previous mining laws and regulations, concession holders were able to conduct mining activities in Indonesia under either a contract of work (a *Perjanjian Karya Pengusahaan Pertambangan Batubara* or *Kontrak Karya*) or a mining authorization (a *Kuasa Pertambangan* or a “KP”). These contracts and authorizations were typically granted for a period of 20 to 30 years, with extensions permitted. The enactment of Law No.4 of 2009 on Coal and Mineral Mining on January 12, 2009 stipulates that previously granted mining rights (either through contract of work or KP) will continue to be valid until expiry, subject to certain adjustments. Under current mining laws, a new mine license will be granted through the issue of either a mining license (*Izin Usaha Pertambangan* or “IUP”) or a special mining license (*Izin Usaha Pertambangan Khusus* or “IUPK”) for areas which have been designated as being of national strategic interest or state reserve areas. While an IUPK can only be issued by the Government, IUPs may be issued by the Government or regional government, based on the geographical coverage of the mine and its infrastructure requirements. In 2014, based on Law No 23 of 2014, which was further amended by the Law No. 2 of 2015 and Law No. 9 of 2015 on Regional Autonomy, the authority of a regent or mayor in relation to issuance of mining licenses has been revoked and transferred to provincial government or central government.

As there is a possibility that area of land contains several commodities (mining, plantation, oil and gas, forestry, etc.), there are possibilities that overlap between commodities occurs. As of the date of this Offering Memorandum, Indonesia does not have integrated maps that can be utilized by the relevant Ministries having the authority to regulate each sector of commodities and stakeholders of each commodity to check the status of an area. Therefore, it is possible that the concessions which have been awarded to us overlap with the other holders of mining rights, plantation rights, oil and gas rights or forestry rights, etc. In addition, under both the previous and current regulatory regimes, the delegation and transfer of authority to issue concession or mining license rights gives rise to the possibility of overlap between licenses or concessions issued by different authorities. There have been instances in the past where a party was granted an IUP for mining of mineral and coal resources by a regional government that overlapped with a concession granted by the MEMR. Since Indonesia also does not have a centralized system for issuance of licenses, it is possible that the regional government and Government issue different licenses to different entities over the same areas of lands. Consequently, there can be no assurance that local miners will not receive permits to mine coal or other minerals, or obtain logging or plantation permits within the concession areas of our concessions from local or regional governments which conflict with our mining rights under the terms of our coal concessions. If any overlap were to occur or is alleged to have occurred, our mining operations on such sites may be disrupted, and in the event that such third party claims are successful, we may be required to cease our mining operations on such sites which may adversely affect our business, financial condition and results of operations. See “— Risks Relating to Indonesia — The interpretation and implementation of legislation on regional governance in Indonesia is uncertain and may adversely affect our business, financial condition, results of operations and prospects.” All of Adaro Indonesia’s mining areas fall within PT Pertamina EP’s concession area. Adaro Indonesia has come to an agreement with PT Pertamina EP on the use of overlapping area in Tapian Timur, where PT Pertamina EP has existing operations. Close supervision and coordination are consistently undertaken to ensure that preparations to carry out the agreement with PT Pertamina EP are completed as agreed. If delays occur in connection with the required site preparation, Adaro Indonesia may temporarily be unable to access this mining area and begin production as scheduled in accordance with its mining plan. PT Pertamina EP has also constructed oil wells and pipelines in North Tutupan in areas that overlap with Adaro Indonesia’s mining area. If the implementation of the agreement with PT Pertamina EP is not completed as agreed, due to any reason whatsoever, or any other dispute arises in the future in connection with the usage or title of these overlapping areas, there can be no assurance that any such dispute will be resolved in Adaro Indonesia’s favor and as a result, Adaro Indonesia may lose access to these mining areas. If we are unable to resolve these issues, our operating results may be negatively affected.

Our mining operations are subject to Indonesian forestry laws

Indonesia’s forestry laws generally prohibit open-pit mining on conserved and protected forest areas. However, a mining company may mine in a production forest area if it obtains a land-use license from the Ministry of Forestry. Mining within production forest areas without a land-use license carries a maximum jail

sentence of ten years or a Rp 5 billion fine. If mining is conducted by or on behalf of a legal entity such as Adaro Indonesia, members of management may be imprisoned for up to 13 years and four months.

As of June 30, 2019, Adaro Indonesia has forestry land-use licenses covering up to 7,492.3 hectares, of which 7,011.4 hectares are used for mining production activities (6,625.2 hectares for mining activities and ±386.2 hectares for hauling roads and support facilities) and 480.9 hectares are used to support exploration activities in its concession area. Failure to extend existing or obtain further land-use licenses will prevent Adaro Indonesia and our other Indonesian mining concessions from carrying out their mining operations in certain mining areas, which could materially and adversely affect our financial condition and results of operations.

Adaro Indonesia and certain other mining companies have and our other mining companies will have significant ongoing mine reclamation and rehabilitation obligations under Adaro Indonesia's Coal Cooperation Agreement and our other IUPs and applicable law and regulation

The Government establishes operational and reclamation standards for all aspects of open cut and underground mining. We have developed mine reclamation and rehabilitation strategies based on our mining plans. As new areas are disturbed for mining, an expense for the estimated cost of these reclamation and rehabilitation activities are recorded as well as a liability for the estimated future cash outlays for reclamation and rehabilitation. These expenses increase as additional areas are disturbed for mining to increase production.

Under a coal cooperation agreement or IUP (as relevant) and applicable laws and regulations, we are responsible to the Government for the reclamation and rehabilitation of all mined land in our concession areas in accordance with an environmental impact assessment and mine closure plan. The reclamation and rehabilitation works carried out by the mining contractors may not meet the standards imposed by the Government. Should the reclamation and rehabilitation works carried out by the mining contractors prove deficient in any respect, our costs may increase significantly, which could have a material and adverse effect upon our business, financial condition, results of operations and prospects.

In addition, Adaro Indonesia is required to provide the Government with reclamation guarantees securing the performance of its reclamation obligations in its concession area. The Government can claim these guarantees if reclamation works are not carried out as agreed. As of June 30, 2019, Adaro Indonesia had placed reclamation guarantees in the amount of Rp 129.6 billion (equivalent to US\$9.2 million), while our other mining operations had similar, though smaller obligations.

Our mining operations entail significant environmental compliance costs, and changes in environmental laws and regulations or their interpretation or implementation, or unanticipated environmental effects from our operations, could require us to incur new or increased costs

Our mining operations involve mine water management, disposal of overburden, hazardous materials, coal stockpiles, overburden and top soil storage piles, which could adversely affect the environment. We are subject to Indonesian national and regional environmental and health and safety laws. These laws govern discharge of substances into the air and water, the management and disposal of hazardous substances and wastes, site cleanup, groundwater quality and availability, plant and wildlife protection and reclamation and restoration of mining areas after mining is completed. Environmental regulations require Adaro Indonesia to submit an environmental impact study to be approved by the Government before it may increase its production capacity, and Adaro Indonesia's permission to carry on its mining operations may be suspended if there is evidence of serious failure to meet environmental standards, or withdrawn permanently in the event of extreme failures. The costs associated with complying with these laws has had, and will continue to have, an impact on our operating costs and competitive position. In addition, we may be required to bear substantial costs as a result of violations of, liabilities under or changes in environmental and health and safety laws.

The impact of our operations on the environment may be materially greater than we anticipate or may breach Indonesian environmental laws and regulations. In addition, the requirements for compliance and remediation may be materially increased by new laws or regulations or changes in the interpretation or implementation of existing laws and regulations. We may experience difficulties in complying with any new environmental requirements. Any material increase in the cost of environmental compliance and remediation, or

the occurrence of a major environmental accident at our mines, could materially and adversely affect our financial condition and results of operations.

Operational Risks Relating to Our Coal Mining Business

Coal prices are cyclical and subject to significant fluctuations

Our results of operations are highly dependent upon the prices we receive for our coal. The price of coal is based upon or affected by global coal prices, which tend to be highly cyclical and subject to significant fluctuations.

Prices for our coal products are also affected by a variety of other factors over which we have no control, including weather, transportation problems and government policy (including the current price cap policy for sales to domestic power plants providing electricity for public use) and related regulatory issues. According to IHS, from 2011 to mid-2016, coal prices progressively declined, due to an excess of thermal coal supply and a slowing of energy demand growth in many regions of the world. In the third quarter of 2016, prices increased dramatically from an average year-to-date price of US\$47.4 per tonne (FOB Newcastle benchmark coal) in January 2016 to a high of US\$109.7 per tonne in November 2018 primarily due to Chinese domestic supply reform eliminating and consolidating capacity, while in 2019 coal prices subsequently declined. The global coal markets are sensitive to changes in coal mining capacity and output levels, patterns of demand and consumption of coal from the electricity generation industry and other industries for which coal is the principal fuel, and changes in the global economy. The coal consumption patterns of the electricity generation and other industries for which coal is the principal fuel are affected by the demand for their products, local environmental and other governmental regulations, technological developments and the price and availability of competing coal and alternative fuel supplies. All of these factors can have a significant impact on selling prices for our coal. Demand for coal is also affected by the price of alternative energy sources, including nuclear energy, natural gas, oil and renewable energy sources, such as solar, geothermal and hydroelectric power, and recent increases in the price of oil have also contributed to increases in the price of coal.

The price of Envirocoal and our other coal is also affected by the value that the market places on environmentally desirable coal (i.e., low ash, low sulfur coal) and other economic benefits of Envirocoal. Improved distribution of Australian, Chinese or U.S. coal, lower ocean freight rates that improve the overall price competitiveness of U.S. coal, an economic downturn in China, India or Asia in general or a change in current China government policy restricting coal exports could further reduce world coal prices. These developments may lead to increased competition and lower coal prices in the future.

Any oversupply of coal in the world markets could reduce world coal prices in the future and the prices we receive for our coal sales under existing or new coal supply agreements. Revenue from our contract mining services and logistics businesses is indirectly dependent on international and domestic demand for coal and coal prices and, in turn, on factors affecting such demand and pricing.

Any fluctuation in world coal demand and prices will directly or indirectly affect our business, prospects, revenues, profitability, financial condition and results of operations, in particular, extended or substantial price declines would also have a material adverse effect on our business, financial condition, results of operations and prospects.

Our inability to acquire additional coal reserves or to develop coal reserves in an economically feasible manner may adversely affect our business

Our profitability depends substantially on our ability to mine and process, in a cost-effective manner, coal reserves that possess the quality characteristics desired by our customers. If we fail to acquire or develop additional coal reserves, our existing reserves will eventually be depleted. As a result, our success depends having sufficient reserves. We may not be able to obtain replacement reserves when we require them, or replacement reserves may not be available at favorable prices or terms, or we may not be capable of mining those reserves at costs that are comparable with our existing coal reserves.

Our ability to obtain coal reserves could also be limited by the availability of cash we generate from our operations or available financing, restrictions under our existing or future financing arrangements or relevant government regulations, competition from other coal producers, the lack of suitable acquisitions opportunities or the inability to acquire coal reserves on commercially reasonable terms. If we are unable to acquire replacement reserves or mine future reserves as profitably as we do currently, our production may decrease significantly and our operating results may be negatively affected.

Coal markets are highly competitive and are affected by factors beyond our control

In the year ended December 31, 2018 and the six months ended June 30, 2019, 80.9% and 82.3%, respectively, of our coal revenue were from export sales. We compete with both domestic Indonesian coal producers and foreign coal producers (primarily from Australia and China) in the world coal markets, primarily on coal quality and price. Demand for our coal by our principal customers is affected by the price of available alternative energy sources and regulations in their local jurisdictions. For example, other countries to which we currently export could seek to transition from coal-fired power to gas-fired power, as has been initiated in China. Alternatively, countries to which we currently export could seek, for political, environmental, economic or other reasons to prioritize their own domestic coal production, which would adversely affect our ability to export to these markets.

Generally, the competitiveness of our coal compared to the coal products of our competitors is evaluated on a delivered cost per heating value unit basis, in addition the competitiveness of a given source of coal is based on its sulfur and ash content, as well as reliability of supply. Alternative energy sources also compete on a delivered cost per heating unit basis, as well as other metrics. Factors that directly influence production costs of coal producers include geological characteristics of their coal, including seam thickness, strip ratios, transportation costs and labor availability and cost. Because world coal prices are denominated in U.S. dollars, our competitors are also affected by the relative rates of exchange between the U.S. dollar and their home currency. Our inability to maintain its competitive position as a result of these or other factors could materially and adversely affect our business, financial condition, results of operations and prospects.

An oversupply of coal could adversely affect our profitability

A growing world coal market and increased demand for coal worldwide have attracted new investors to the coal industry, spurred the development of new mines and expansion of existing mines in various countries, including the primary thermal coal producing countries of Indonesia, China, Australia, South Africa and Colombia and the primary metallurgical producing countries of China, Russia, Canada, Australia. The development of new mines and expansion of existing mines has resulted in added production capacity throughout the industry worldwide. Any oversupply of coal in the world markets could reduce world coal prices in the future and the prices we receive under new coal supply agreements, which could materially and adversely affect our businesses, financial conditions, results of operations and prospects.

The use of alternative energy sources for power generation could reduce coal consumption by power generation companies, which could lower prices for our coal

In the year ended December 31, 2018 and the six months ended June 30, 2019, approximately 87.3% and 80.9% of coal we produced was sold to power generation companies. The amount of coal consumed for electric power generation is affected by, among other things the location, availability, quality and price of alternative energy sources, such as natural gas, fuel oil, nuclear, hydroelectric, geothermal, wind and solar power, and technological developments, including those related to alternative energy sources.

Gas-fueled generation has the potential to displace coal-fueled generation, particularly from older, less efficient coal-powered generators. It is expected that many of the new power plants needed to meet increasing demand for electricity generation will be fueled by natural gas because gas-fired plants are cheaper to construct and permits to construct these plants are easier to obtain as natural gas is seen as having a lower environmental impact than coal-fueled generators. In addition, government mandates for increased use of electricity from renewable energy sources could decrease the market demand for our coal. Historically, a small portion of our sales went into the United States, several states in the United States have enacted legislation requiring electricity

suppliers to use renewable energy sources to generate a certain percentage of power, currently we make no material sales into the United States. Possible advances in technologies and incentives, such as tax credits, to enhance the economics of renewable energy sources could make these sources more competitive with coal. Any reduction in the amount of coal consumed by domestic and international electric power generators could reduce the price of thermal coal that our mines sell, thereby reducing our revenues and materially and adversely affecting our businesses, financial conditions, results of operations and prospects.

Our mining operations are dependent on contractors which may face labor unrest or operational difficulties, and the loss of or significant reduction in their services may materially and adversely affect our results of operations

Adaro Indonesia conducts all of its mining operations through SIS and two other mining contractors, PT Pamapersada Nusantara (“PAMA”) and PT Bukit Makmur Mandiri Utama (“BUMA”), under long-term operating agreements. However, these contractors may be conducting a portion of their mining operations for other parties. For the six months ended June 30, 2019, SIS, was responsible for approximately 60.1% of Adaro Indonesia’s coal production volumes while PAMA and BUMA were each responsible for approximately 28.8% and 11.1%, respectively, of Adaro Indonesia’s coal production volumes. Under these operating agreements, the contractor is responsible for providing substantially all plant, equipment, facilities, services, materials, supplies, labor and management required for the operation and maintenance of the designated mining pits. Each contractor is responsible for adhering to Adaro Indonesia’s mining plan. Each contractor, including SIS, employs all of the employees (directly or through their respective sub-contractors) who operate in the mining areas under its operational control. Adaro Indonesia also conducts all of its barging and transshipment operations through MBP and other barging operators.

Adaro Indonesia’s contractors’ performance may be constrained by labor unrest or a shortage of supply of plant capacity, equipment, facilities, services, materials or supplies necessary for Adaro Indonesia’s contractors to carry out their operations. In addition, when existing agreements with its contractors expire, Adaro Indonesia may not be able to renew these agreements on equally favorable terms or at all. Any significant failure by Adaro Indonesia’s contractors to comply with their obligations under their operating agreements (whether as a result of financial or operational difficulties or otherwise) or any termination or failure to renew or significant breach of Adaro Indonesia’s operating agreements by Adaro Indonesia’s contractors could materially and adversely affect our business, financial condition, results of operations and prospects.

Increases in the costs of mining and other industrial supplies, including fuel, spare-parts and other operational activity supporting materials, or the inability to obtain a sufficient quantity of those supplies, could negatively affect our operating costs or disrupt or delay its production

Adaro Indonesia procures fuel for its mining contractors (including SIS) and will continue to do so. Therefore, Adaro Indonesia bears the full risk of fuel price fluctuations. In return for fuel allowance from Adaro Indonesia, its mining contractors have committed to consume fuel efficiently. Currently, Adaro Indonesia sources all of its fuel from one sole supplier, PT Pertamina (Persero). If Adaro Indonesia is unable to secure sufficient quantities of fuel to sustain its operations and those of its contractors, its operations may be interrupted.

Our fuel hedging arrangements may not sufficiently cover all of Adaro Indonesia’s fuel price risk. Any future significant increase in the price of fuel would cause a direct corresponding increase in Adaro Indonesia’s costs. If Adaro Indonesia is unable to pass such increased costs to its customers, it will affect its results of operations. On the other hand, if Adaro Indonesia passes such increased costs to its customers, it could result in termination of supply contracts by such customers. In either case, such increased costs could materially and adversely affect our business.

The Government of Indonesia has announced that as of January 1, 2020, 30% biodiesel fuel will be required to be used in the heavy equipment used in all Indonesian operations. The switch to this type of fuel may impact the performance of the equipment operated by Adaro Indonesia’s contractors (including SIS), require us to procure new equipment or additional spare parts, or undertake additional maintenance, and hence incur additional costs, and could also impact or void warranty coverage over this equipment.

In addition, Adaro Indonesia's mining operations also use significant amounts of other industrial supplies, such as explosives. Any significant increases in the price or shortage of fuel or other supplies would cause a corresponding increase in the Adaro Indonesia's costs or limit its operations, either of which could result in termination of sales contracts by Adaro Indonesia's customers and materially and adversely affect our businesses, financial conditions, results of operations and prospects.

Our operations may be adversely affected by operational and infrastructure risks and adverse weather or natural disasters

Our businesses are subject to a variety of potentially severe operating and infrastructure risks, including the risk of fire, explosions, embargos, natural disasters, accidents, labor unrest, unexpected geological conditions, mine collapses, environmental hazards, weather, floods and other natural phenomena, including monsoon season. We often experience temporarily reduced production due to heavy rains during the local monsoon season at our thermal coal mining operations and recently our road transport and production operations have experience delays due to reduced visibility related to haze and smoke primarily produced by forest fires. Additionally, our transportation activities, which are carried out by contractors, and those of our customers, are subject adverse weather and to the hazards of maritime operations, such as piracy, capsizing, collision and adverse weather and river conditions, such as seasonal silt build-ups, as well as adverse sea conditions, such as abnormally high tides impacting loading operations at sea. In particular, while our main Barito River barging operations from Kelanis port operate year round despite siltation of several locations along the river, current barging operations to the AMC port further upriver are subject to reduced navigability if water levels are either too high in the monsoon season, or too low in the dry season. Additionally, following a shipping accident in 2013, the Barito channel was closed and our coal supply was suspended for several days. If any of these operating risks occur, we could incur substantial losses due to delays in operations. Such losses may involve or arise from serious personal injury or loss of life, severe damage to or destruction of property and equipment, pollution, destruction of natural resources or other environmental damage, cleanup responsibilities, regulatory investigation and penalties and suspension of operations.

We maintain a property insurance program to cover any damage to our assets due to the risk of fire, explosions, natural disasters, accidents, unexpected geological conditions, mine collapses, environmental hazards, extreme weather and sea conditions, piracy, capsizing and collisions. Our current insurance program also provides coverage for losses involving or arising from serious personal injury or loss of life, severe damage to or destruction of property and equipment, pollution, or other environmental damage.

Our insurance program does not cover risks or losses arising from, among others, embargos, labor unrest, normal weather and natural phenomena, destruction of natural resources, cleanup responsibilities, regulatory investigation and penalties and suspension of operations.

Our insurance policies may not be adequate to cover all losses or liabilities that may arise or the duration of the insurance is shorter than the duration of the risk involved. Also, insurance may not continue to be available at current premium levels or at all.

Issues with local communities may materially and adversely affect our businesses

Issues with the local communities surrounding the areas where we operate might arise from our business activities, including disputes related to land release and settlement relocation, employment demands, environmental issues, employee deaths or serious injuries or other reasons. These issues may result in community protests, blocking of road and third parties claims. While Adaro Indonesia has significant experience in resolving issues with the local community near its operations, we may experience new and different issues with other local communities near our newer projects, for which we may be unprepared. The failure to successfully settle any local community issues could have a material and adverse effect upon our businesses, financial condition, results of operations and prospects.

Fluctuations in shipping costs and disruptions in transportation could adversely affect the demand for our coal and make Adaro Indonesia less competitive in comparison to coal producers in other parts of Asia and elsewhere in the world

Shipping costs, which represent a significant portion of the total cost of coal, are a critical factor in a customer's purchasing decisions. Under the terms of almost all of our coal supply agreements, the customer is solely responsible for bearing all required shipping costs. Any significant increases in shipping costs could make coal a less competitive source of energy or could make us and Adaro Indonesia less competitive than our competitors that have lower shipping costs. Furthermore, relatively cheaper freight rates and the availability of other cheaper modes of coal transportation from certain parts of Indonesia or other parts of the world may give our competitors from other areas of the world a pricing advantage, depending on their proximity to the target market.

We rely heavily on travel along the Barito River. Disruption of our transportation services due to weather-related problems, channel closure, distribution problems, labor unrest, accidents or other events could temporarily restrict our ability to supply coal to our customers or result in demurrage claims by ship owners for loading delays.

Cabotage laws require that all vessels operating in Indonesian waters must be owned by Indonesian shipping companies and carry an Indonesian flag. Failure to comply with cabotage laws, in related to availability of vessel for domestic market also will have adverse impact in our coal sales. Delivery to most of our domestic customer are done by tugs and barges.

The regulation on the requirement to use Indonesian flagged vessels owned by Indonesian companies also applies to the export shipments with effect from May 1, 2020. There could be practical challenges in enforcing such regulation while maintaining the current level of Indonesian exports. If the Government were to seek to fully enforce such regulation, our export shipments could be materially impacted or cease. Any of the foregoing factors could materially and adversely affect our business, financial condition, results of operations and prospects.

Our ability to collect payments from our customers could be impaired if their creditworthiness deteriorates

Our ability to receive payment for coal sold and delivered depends on the continued creditworthiness of our customers. Furthermore, the bankruptcy of any of our customers could materially and adversely affect our business. In addition, competition with other coal suppliers could force us or Adaro Indonesia to extend credit to customers and on terms that could increase the risk of payment default. If we are unable to collect payment from our customers, our business, financial condition, results of operations and prospects will be materially and adversely affected.

We may not be able to produce sufficient amounts of coal to fulfill our customers' requirements, which could harm our customer relationships

We may not be able to produce sufficient amounts of coal to meet our customers' demands or our contractual obligations. This could result from many reasons, including, among others, disputes with our contractors, labor unrest, equipment and machinery failures and operational difficulties, difficulties encountered by our contractors in acquiring essential machinery, equipment and spare parts, weather and variations in the quantity and quality of coal within the coal seams. Our inability to satisfy our contractual obligations and our customers' demands could result in customer claims against us or Adaro Indonesia or otherwise harm our relationships with our customers, which could materially and adversely affect our business, financial condition, results of operations and prospects.

The loss of, or significant reduction in purchases by, Adaro Indonesia's largest customers could adversely affect its sales

In the year ended December 31, 2018 and the six months ended June 30, 2019, Adaro Indonesia derived 26.5% and 27.2%, respectively, of its total sales from sales to its three largest customers by revenue and 55.3% and 52.5%, respectively, of total sales from sales to its ten largest customers by revenue. As of June 30, 2019,

Adaro Indonesia had coal supply agreements with those ten customers that expire at various times from 2019 to 2022. Adaro Indonesia may not be able to extend existing agreements or enter into new agreements with those customers, and those customers may not continue to purchase coal from Adaro Indonesia under long-term coal supply agreements, or at all. If any of those customers were to significantly reduce their purchases of coal from Adaro Indonesia, or if Adaro Indonesia was unable to sell coal to them on favorable terms or at all, then it would materially and adversely affect its business, financial condition, results of operations and prospects.

Estimates of coal reserves and resources are expressions of judgment based on knowledge, experience and industry practice, and any adjustments to coal reserve and resource estimates could adversely affect our development and mining plans

Estimates of coal reserves and resources contained in this Offering Memorandum are expressions of judgment based on knowledge, experience and industry practice and may not prove to be an accurate indication of the quantity or quality of coal that exists at our mining properties or that we will be able to extract. Estimating the size of a coal deposit and the quality of the coal it contains depends on interpreting and extrapolating a limited amount of geological data. Many complex geological judgments are required to estimate coal quantities, including the interpretation of observable geological structures, the location, spacing, direction and depth of drill holes and the application of sampling, models and statistical techniques. As a result, resource estimates are inherently uncertain and may be subject to downward revision. Resources included in the “inferred” category are particularly uncertain and should be treated with appropriate caution. In addition, investors should be aware that the inclusion of coal in a resource estimate does not require a conclusion that the material may be economically extracted. Investors should not assume that resources will ultimately be converted into reserves and/or extracted.

Converting a coal resource into a coal reserve requires additional judgments and assumptions, including estimates of mining techniques and costs, infrastructure and processing costs, transport costs, taxes and royalties and the prices at which we will be able to sell our coal production. These estimates and judgments may prove to be inaccurate and are subject to changing circumstances. As we mine, we will gain additional geological and production data, which may cause us to revise our understanding of the deposit or to revise the assumptions on which we have based our reserve estimates. In addition, changes in circumstances, such as increased costs, changes in tax or royalty rates or changes in coal prices may alter the economic assumptions on which our reserve estimates are based, resulting in a downward revision.

In particular, investors should note the observations of Adaro Indonesia’s independent technical expert, RPM, that the test for the reasonable prospect for eventual economic extraction has not been fully completed with respect to certain of Adaro Indonesia’s reported coal resources, which RPM believes is likely to have an impact on Adaro Indonesia’s reported resources. See section 3.7 of the RPM Report attached as Appendix A to this Offering Memorandum.

Any material reduction in estimates of reserves and resources, unexpected changes in geologic conditions and geotechnical instability of any of our mining pits, could have a material adverse effect on our prospects, value, results of operations and financial condition. In particular, a substantial portion of our cost of operations is based on the mining plan and any unexpected variations in coal seam thickness, the amount and type of rock and soil (overburden) overlying the coal seam and other discrepancies to our mining geological models could materially increase our extraction costs per tonne. In addition, a reduction in reserves could impact depreciation and amortization rates, asset carrying values and provisions for closedown, restoration and environmental clean-up costs.

We face risks arising from increased production and expansion

We continue to expand our thermal coal production operations beyond Adaro Indonesia, primarily in the concessions of PT Laskar Semesta Alam, PT Semesta Centramas, and PT Paramitha Cipta Sarana, three IUPs near Adaro Indonesia’s operations (the “Balangan Coal Companies”). We have also recently expanded our coal asset portfolio in the metallurgical coal market at both the AMC entities and through the acquisition of an indirect 34.6% interest in Kestrel Coal Mine. Any of these expansions could prove to be unsuccessful. It is difficult to evaluate or predict our ability to implement our overall expansion strategy successfully. Estimates of anticipated coal production are subject to significant uncertainty, and we may not be able to increase production

within our budget or anticipated time frame or at all. While we generally do not commit to long-term supply contracts until production at a site has ramped-up, failure to meet anticipated coal production targets, and hence our contractual obligations could also harm our customer relationships. Some of the factors that may prevent us or Adaro Indonesia from reaching anticipated coal production targets include:

- the failure of equipment and machinery implemented to increase production to perform according to specifications or our expectations;
- difficulties encountered by SIS or our other mining contractors in obtaining or financing the purchase of machinery, equipment and spare parts, particularly coal hauling trucks, excavators and tires for such equipment, required to increase production, due to capacity and supply constraints in the world steel and rubber markets and high global demand for those materials and other mining equipment;
- the failure of any of our contractors to fulfill their contractual obligations, which would require us or Adaro Indonesia to make alternative arrangements, may cause delays and potentially increase the costs of our expansion plans;
- the failure of our contractors to fulfill their capital expenditure and operating plans, which are subject to risks, contingencies and other factors, some of which are and will be beyond their control, such as increases in costs of equipment and materials and their ability to secure necessary approvals, recruit a sufficient number of qualified employees and obtain required financing on acceptable terms or at all;
- difficulties encountered by Adaro Logistics to transport any such increased production, in respect of our operations in Kalimantan;
- failure to obtain approvals for our work plans and budgets from the Government;
- unforeseen conditions or developments that could substantially delay our planned expansion, including adverse weather conditions (such as heavy rainfall and forest fires) and equipment and machinery malfunctions once operations commence; and
- our failure to obtain approval of our environmental impact study from the Government, which is required to be obtained before our mines can increase their production capacity.

We from time to time have considered and may in the future consider selective opportunities to expand our coal reserves through exploration activities in our current concession areas and are opportunistically considering selective opportunities to acquire other coal mining assets with significant reserves. Such expansion or acquisitions could involve the incurrence of significant amounts of additional capital expenditures, debt and other obligations. There can be no assurance that we will be able to achieve the intended economic benefit of our expansion plans. Such failure would in turn materially and adversely affect our business, financial condition, results of operations and prospects.

We might be subject to risk of coal theft

Unauthorized extraction of coal and illegal mining is a problem in Indonesia and has at times caused major disruption to the activities of other mining companies. Illegal mining in Indonesia typically increases as coal prices rise. Losses from illegal mining include reserve losses and rehabilitation costs associated with illegally mined areas. Coal theft may also occur during transportation, either by land or water.

We have not, to date, experienced any illegal mining nor significant coal theft. However, coal theft, unauthorized extraction of coal, or illegal mining within any of our concession areas may occur in the future, and local miners may receive permits to mine coal in our concession areas from regional governments, in conflict with our rights under our concessions. Any significant scale of unauthorized extraction of coal or illegal mining in any of the concession areas could have a material and adverse effect upon our businesses, financial condition, results of operations and financial prospects.

Risks Relating to Our Power Business

We are subject to certain risks associated with our reliance on PLN, the principal customer for our power business

Our joint ventures, PT Tanjung Power Indonesia (“TPI”) and PT Bhimasena Power (“BPI”), have each entered into a power purchase agreement (“PPA”) with PT PLN (Persero) (“PLN”), Indonesia’s state-owned electric utility provider. Our subsidiary, PT Makmur Sejahtera Wisesa sells to PLN the power generated by its 2x30 MW coal-fired power plant in excess of what is required to power our nearby mining operations. TPI and BPI are expected to derive all of their revenue from the sale of electricity to PLN, through 25-year take-or-pay arrangements under their respective PPAs. As a result, our power business is dependent on PLN and PLN’s fulfillment of its payment obligations under its contracts with us.

Certain payment obligations of PLN under the PPAs with both TPI and BPI are guaranteed by the Government of Indonesia. In respect of TPI, PLN’s payment obligations are guaranteed under a Business Viability Guarantee Letter for a certain period, while in respect of BPI, the payment obligations are guaranteed by the Indonesia Infrastructure Guarantee Fund (“IIGF,” or *PT Penjaminan Infrastruktur Indonesia*) and the Ministry of Finance of Indonesia under a guarantee agreement for a certain period.

Our financial condition and operations could be materially and adversely affected by any occurrence or circumstance that reduces, suspends or cancels PLN’s payment obligations under its contracts with our joint ventures or any failure or delay of PLN to fulfill its obligations. PLN has historically operated as a Government service provider and, accordingly, the Government has historically influenced, and is likely to continue to influence, its strategy and operations. Typically, the Government supports PLN through indirect means, such as public service operation regulations, which subsidize electricity costs, but which are subject to change. PLN’s ability to meet its obligations under the contracts with our joint ventures is dependent on its financial condition, results of operations and cash flows.

Any regulatory or policy change that adversely affects PLN or our joint venture’s relationship with PLN could have a significant effect on our results of operations. In any financial period where PLN does not make timely payments under its contracts with our joint ventures, our results of operations and cash flows will be significantly and adversely affected. Although certain of PLN’s payment obligations to TPI and BPI are guaranteed by the Government, any factor that materially and adversely affects PLN’s market position, financial condition and results of operations could, in turn, materially and adversely affect our financial condition and results of operations.

Under our joint ventures’ PPAs with PLN, the risks and potential economic losses our joint ventures face include: (1) the actual cost of completing power plants exceed the investment committed and the debt financing secured and is not due to contractors’ fault; (2) there is a delay in achieving commercial operation date of power plants as agreed under the PPAs and is not due to contractors’ fault; (3) actual operating costs exceed what were previously estimated and reimbursed through the electricity tariff agreed with PLN; (4) the actual amount of coal used exceeds the agreed utilization rate under the PPA; and (5) inability to meet the agreed performance parameters under the PPA including availability factors. For events that are considered events of default under the PPA, the failure to cure these defaults within an agreed time period would give PLN an option to terminate the PPA. This would include failure to achieve commercial operations date by the agreed long stop date. Under such termination events, PLN has no obligation to buy the power plants and our investment in these power plants and all the outstanding loans will not be recouped or repaid. The events described could materially and adversely affect our business, financial condition, results of operations and prospects.

Our expansion plans may not be successful and additional projects may not commence operation as planned

Our development and investments in power plants are subject to significant risks, including the need to incur significant expenses for preliminary feasibility studies, tendering, engineering and pre-development activities with no assurance that the project will be eventually developed, as well as risks associated with EPC contracts.

Our projects may involve complex design and engineering, significant procurement of equipment and supplies, and extensive construction management. Many of these projects involve design and engineering phases that may occur over extended time periods. Our power plant joint ventures may encounter difficulties in the design or engineering, equipment and supply delivery, schedule changes, and other factors, some of which are beyond our control, that impact our joint ventures' ability to complete a project in accordance with the original delivery schedule. Where equipment our joint ventures purchase for a project does not perform as expected these performance failures may result in delays in completion of the project or additional costs to our joint ventures or us to complete the project and, in some cases, may require our joint ventures to obtain alternate equipment at additional cost.

There can be no assurance that our current plan to develop power plants will be successful or that our joint ventures will commence operation as planned or at all. Our development and expansion plans are also subject to the risk that our joint ventures may encounter non-commercially viable terms in new PPAs, engineering and environmental problems, construction and operational delays, failure by contractors and vendors to timely and properly perform under their contracts and adverse environmental and geological conditions, including inclement weather conditions. Successful development, construction and operation is contingent upon, among other things, negotiation on terms satisfactory to our joint ventures of engineering, procurement and construction contracts with other project participants, receipt of required governmental permits and consents, including land use rights and timely implementation of construction. Further, there can be no assurance that we or our joint ventures will have access to capital required to continue to develop, construct, own and operate new power projects. There can be no assurance that development efforts on any particular facility or power plant will be successful.

TPI and BPI have not fully completed construction

The power plant being constructed by TPI is estimated to commence operations at the end of 2019. TPI's first unit was commissioned and began commercial operations in September 2019, with the second unit expected to be commissioned and start commercial operations at the end of 2019. The power plant being constructed by BPI is scheduled to commence operations at the end of 2020 under its PPA. However, there is no guarantee that construction will be finished on schedule or on budget. Any significant construction delay might affect our joint venture's financial return. Additionally, our joint ventures are contractually obligated to begin delivering electricity at certain times, as such a material delay in construction of any power plant or the commencement of commercial operation could result in breach of our joint ventures' contractual obligations under the respective PPAs. Further, there is no historical operational information available for TPI and BPI's power plants from which their performances may be determined, which may make it more difficult for prospective investors to assess the likely future performance of either power plant.

Our future performance depends on our ability to manage risks commonly associated with owning and operating power plants, such as unscheduled outages, coal supply interruptions, and for plants with limited operating histories such as ours, design defects that may take a prolonged period of time to discover. In the event any such risks materialize, our joint ventures' power plants may be shut down for an indeterminable amount of time, which, in turn, may materially and adversely impact our business, financial condition, results of operations and prospects.

Risks Relating to Indonesia

Adaro Energy and its mining and logistics operating subsidiaries, including Adaro Indonesia, are incorporated in Indonesia and substantially all of the Group's assets and operations are located in Indonesia. As a result, future political, economic, legal and social conditions in Indonesia, as well as certain actions and policies that the Government may, or may not, take or adopt could materially and adversely affect our businesses, financial conditions, results of operations and prospects.

Political and social instability in Indonesia may adversely affect us

Since the collapse of President Suharto's regime in 1998, Indonesia has experienced a process of democratic change, resulting in political and social events that have highlighted the unpredictable nature of Indonesia's changing political landscape. In 1999, Indonesia successfully conducted its first free elections for

parliament and president. As a newly democratic country, Indonesia continues to face various socio-political issues and has, from time to time, experienced political instability and social and civil unrest. Such instances of unrest have highlighted the unpredictable nature of Indonesia's changing political landscape. Indonesia also has many political parties, without any one party winning a clear majority to date. These events have resulted in political instability, as well as general social and civil unrest on certain occasions in recent years.

Since 2000, thousands of Indonesians have participated in demonstrations in Jakarta and other Indonesian cities both for and against former President Wahid, former President Megawati, and former President Yudhoyono as well as in response to specific issues, including fuel subsidy reductions, privatization of state assets, anti-corruption measures, decentralization and provincial autonomy and the American-led military campaigns in Afghanistan and Iraq. Although these demonstrations were generally peaceful, some turned violent. Other protests regarding elections occurred when Indonesia's Electoral Commission (KPU) formally announced the results of the 2019 presidential election and it was confirmed that the incumbent President Joko Widodo won the presidential polls with 55.5% of the total votes. The result triggered allegations of electoral fraud. Thousands of supporters of the opposing party, Prabowo Subianto, then held a rally in front of the Elections Supervisory Agency's (Bawaslu) headquarters on Jl. Thamrin in Central Jakarta on May 21, 2019, calling for the disqualification of Joko Widodo from the presidential election. The rally ended with a riot on May 22, 2019 in Central Jakarta. Further, the opposing party has challenged the election result to the Constitutional Court with regard to such fraud allegation, resulting in political uncertainty and instability in Indonesia. The appeal for the presidential election result has been decided by the Constitutional Court on July 27, 2019. The Constitutional Court decided to reject the appeal. There can be no assurance that this situation or future sources of discontent will not lead to further political and social instability.

Separatist movements and clashes between religious and ethnic groups have resulted in social and civil unrest in parts of Indonesia. In the provinces of Aceh and Papua (formerly Irian Jaya), there have been numerous clashes between supporters of those separatist movements and the Indonesian military. In Papua, continued activity by separatist rebels has led to violent incidents. In the provinces of Maluku and West Kalimantan, clashes between religious groups and ethnic groups have produced thousands of casualties and refugees over the past several years. The Government has attempted to resolve problems in these troubled regions with limited success except in the province of Aceh in which an agreement between the Government and the Aceh separatists was reached in 2005 and peaceful local elections were held with some former separatists as candidates, but there can be no assurance that the terms of any agreement reached between the Government and the separatists will be upheld.

Political and related social developments in Indonesia have been unpredictable in the past. Social and civil disturbances could directly or indirectly, materially and adversely affect our business, financial condition, results of operations and prospects.

Indonesia is located in an earthquake zone and is subject to significant geological risk that could lead to social unrest and economic loss

The Indonesian archipelago is one of the most volcanically active regions in the world. Because Indonesia is located in the convergence zone of three major lithospheric plates, it is subject to significant seismic activity that can lead to destructive earthquakes and tsunamis, or tidal waves. On December 26, 2004, an underwater earthquake off the coast of the northern part of Sumatra caused a tsunami that devastated coastal communities in Indonesia, Thailand, India and Sri Lanka. In 14 countries, including Indonesia, around 230,000 people died or were recorded as missing in the disaster and caused billions of U.S. dollars in damages. Aftershocks from the December 2004 tsunami also claimed further casualties, leaving tens of thousands homeless and hundreds more dead. There have been further earthquakes, including those in Yogyakarta, Java, Sulawesi, Manokwari and Padang, from 2006 to 2009, many of them leaving people dead or homeless.

In September 2017, Mount Agung, located in Denpasar, erupted with a magnitude of approximately 4.3 and struck off the coast of Indonesia. On August 5, 2018, a 7.0 magnitude earthquake struck the island of Lombok, killing at least 555 people. On October 28, 2018, a 7.7 magnitude earthquake struck Central Sulawesi, causing a tsunami to strike the provincial capital of Palu. The combined effects of the earthquake and tsunami led

to the deaths of approximately 2,073 people. On December 22, 2018, the partial collapse of Anak Krakatau Volcano in Indonesia caused an undersea landslide, triggering a significant tsunami which affected the provinces of Banten and Lampung. The tsunami led to extensive damage along the coastal areas, killing at least 373 people, damaging approximately 681 homes and resulting in 128 individuals missing. These earthquakes, tsunamis and volcanic eruptions resulted in significant loss of life and injury and widespread destruction of property.

In addition to these geological events, heavy rains in December 2006 resulted in floods that killed more than 100 people and displaced over 100,000 people on the northwestern Sumatra island. More flooding in January and February 2007 around Jakarta killed at least 80 people and displaced at least 320,000 from their homes. In July 2007, at least 57 people were killed and at least 300 people were forced to flee their homes because of floods and landslides caused by torrential rains on the island of Sulawesi. In January 2009, torrential rain caused a colonial-era dam to burst outside Jakarta, sending a wall of muddy water crashing into a densely packed neighborhood and killing at least 100 people. The flood also left scores missing and submerged hundreds of homes. In October 2010, at least 158 people died and 148 people were declared missing in a flash flood in Wasior district, West Papua. In the early parts of 2013 and 2014, floods in Jakarta resulted in disruptions to businesses and extensive evacuations in the city.

While these events did not have a significant economic impact on Indonesian capital markets, the Government has had to expend significant amounts of resources on emergency aid and resettlement efforts. Most of these costs have been underwritten by foreign governments and international aid agencies. However, such aid may not continue to be forthcoming, and may not be delivered to recipients on a timely basis. If the Government is unable to timely deliver foreign aid to affected communities, political and social unrest could result. Additionally, recovery and relief efforts are likely to continue to strain the Government's finances and may affect its ability to meet its obligations on its sovereign debt. Any such failure on the part of the Government, or declaration by it of a moratorium on its sovereign debt, could trigger an event of default under numerous private sector borrowings, including ours, thereby materially and adversely affecting our businesses, financial condition, results of operations and prospects.

Future geological occurrences could significantly impact the Indonesian economy. A significant earthquake or other geological disturbance in any of Indonesia's more populated cities could severely disrupt the Indonesian economy and undermine investor confidence, thereby materially and adversely affecting our businesses, financial condition, results of operations and prospects.

Terrorist attacks and terrorist activities and certain destabilizing events have led to substantial and continuing economic and social volatility in Indonesia, which may materially and adversely affect our businesses

Terrorist attacks, including those on the United States on September 11, 2001, the United Kingdom on July 7, 2005, in Jakarta on July 17, 2009 and Paris on November 13, 2015, together with the military response to the September 11 attacks have resulted in substantial and continuing economic volatility and social unrest in the world. Terrorist attacks in Southeast Asia have exacerbated this volatility. In Indonesia during the last several years and as recently as May 2018, there have been various bombing incidents directed towards the Government, foreign governments and public and commercial buildings frequented by foreigners, including the Jakarta Stock Exchange Building, hotels in Jakarta and tourist districts in Bali, which have killed and injured a significant number of people. For example, on July 17, 2009, two separate bomb explosions occurred at the JW Marriott Hotel and the Ritz Carlton Hotel in Jakarta, killing at least nine people and injuring 50 others. On January 14, 2016, two suicide bombers and two gunmen exchanged gunfire with police before bombing a police post and cafe in central Jakarta, killing at least four people and injuring more than 20 people. Indonesian, Australian and US government officials have indicated that these bombings may be linked to an international terrorist organization. The Islamic State of Iraq and the Levant claimed responsibility. On May 24, 2017, two explosions occurred at a bus terminal in Eastern Jakarta, resulting in three deaths and injuring 11 people. In May 2018, three churches were bombed in Surabaya, killing at least 28 people and injuring at least 50 others. Indonesian, Australian and US government officials have indicated that these bombings may be linked to an international terrorist organization. Further developments stemming from these events or other similar events could cause further volatility. Any additional significant military or other response or any further terrorist activities could also materially and adversely affect international financial markets and the Indonesian economy.

There can be no assurance that further terrorist acts will not occur in the future. Following the military involvement of the United States and its allies in Iraq, a number of governments have issued warnings to their citizens in relation to a perceived increase in the possibility of terrorist activities in Indonesia, targeting foreign, particularly U.S., interests. Such terrorist acts could destabilize Indonesia and increase internal divisions within the Government as it considers responses to such instability and unrest, thereby adversely affecting investors' confidence in Indonesia and the Indonesian economy. Violent acts arising from and leading to instability and unrest have in the past had, and could continue to have, a material adverse effect on investment and confidence in, and the performance of, the Indonesian economy, and in turn, our business. Any of the events described above, including damage to our infrastructure or that of our suppliers and customers, could interrupt parts of our business and materially and adversely affect our financial condition, results of operations and prospects.

The interpretation and implementation of legislation on regional governance in Indonesia is uncertain and may adversely affect our business, financial condition, results of operations and prospects

Indonesia is a large and diverse nation covering a multitude of ethnicities, languages, traditions and customs. During the administration of the former President Suharto, the Government controlled and exercised decision-making authorities on almost all aspects of national and regional administration, including the allocation of revenues generated from extraction of national resources in the various regions. This control led to a demand for greater regional autonomy, in particular with respect to the management of local economic and financial resources. In response to such demand, the Indonesian Parliament in 1999 passed Law No. 22 of 1999 on Regional Autonomy ("Law No. 22/1999") and Law No. 25 of 1999 on Fiscal Balance between the Central and the Regional Governments ("Law No. 25/1999"). Law No. 22/1999 has been revoked by Law No 23 of 2014, which was further amended by the Law No. 2 of 2015 and Law No. 9 of 2015 on Regional Autonomy. Law No. 25/1999 has been revoked and replaced by Law No. 33 of 2004 on the Fiscal Balance between the Central and the regional governments, respectively. Under these regional autonomy laws, regional autonomy was expected to give the regional governments greater powers and responsibilities over the use of "national assets" and to create a balanced and equitable financial relationship between central and regional governments.

Regional autonomy laws and regulations have changed the regulatory environment for companies in Indonesia by decentralizing certain regulatory, taxing and other power from the Government to regional governments, and this creates uncertainty. These uncertainties include a lack of implementing regulations on areas of regional autonomy and a lack of government personnel with relevant sector experience at some regional government levels. Moreover, limited precedent or other guidance exists on the interpretation and implementation of the regional autonomy laws and regulations and any judicial review/decision from the courts relating to such regional laws and regulations. In addition, pursuant to the regional autonomy laws, regional governments are given the authority to adopt their own regulations and under the pretext of regional autonomy, certain regional governments have put in place various restrictions, taxes and levies which may differ from restrictions, taxes and levies put in place by other regional governments and/or are in addition to restrictions, taxes and levies stipulated by the central Government. Currently, there is uncertainty in respect of the balance between the local and the central Government. Our business and operations are located throughout Indonesia and may be adversely affected by conflicting or additional restrictions, taxes and levies that may be imposed by the applicable regional authorities.

Labor laws and regulations in Indonesia and labor unrest may materially adversely affect our results of operations

Laws and regulations which facilitate the forming of labor unions, combined with weak economic conditions, have resulted and may continue to result in labor unrest and activism in Indonesia. In 2000, the Government issued Law No. 21 of 2000 regarding Labor Union (the "Labor Union Law"). The Labor Union Law permits employees to form unions without intervention from an employer, the government, a political party or any other party. On February 25, 2003, a committee of the Indonesian parliament, the House of Representatives, *Dewan Perwakilan Rakyat* passed Law No. 13 of 2003 on Employment (the "Labor Law") which, among other things, increased the amount of severance, service and compensation payments payable to employees upon termination of employment. The Labor Law took effect on March 25, 2003 and requires further implementation of regulations that may substantively affect labor relations in Indonesia. Under the Labor Law, employees who voluntarily resign are also entitled to payments for, among other things, (i) unclaimed annual leave,

(ii) relocation expenses (if any), (iii) separation pay (if any), severance pay, and (iv) certain other expenses (if any). The Labor Law requires companies with 50 or more employees establish bipartite forums with participation from employers and employees and the participation of more than half of the employees of a company in order for a collective labor agreement to be negotiated. Following the enactment, several labor unions urged the Indonesian Constitutional Court to declare certain provisions of the Labor Law unconstitutional and order the Government to revoke those provisions. The Indonesian Constitutional Court declared the Labor Law valid except for certain provisions, including (i) the procedures for termination of employment of an employee who commits a serious mistake, (ii) criminal sanctions against an employee who instigates or participates in an illegal labor strike whether in the form of imprisonment or monetary penalty, (iii) for labor unions in companies which have more than one labor union, the need for more than 50% employee representation before such labor unions are eligible to conduct negotiations with the employer, and (iv) the ability to have outsourcing arrangements with fixed term employment contracts that do not contain provisions that protect outsourced employees upon the replacement of the outsourcing company, in which case we may not be able to rely on certain provisions of the Labor Law.

Labor unrest and activism in Indonesia could disrupt our operations, our suppliers or contractors and could affect the financial condition of Indonesian companies in general, depressing the prices of Indonesian securities on the Jakarta or other stock exchanges and the value of the Rupiah relative to other currencies. Such events could materially and adversely affect our business, financial condition, results of operations and prospects.

In addition, the Labor Law prohibits an employer from paying an employee below the minimum wage stipulated annually by the provincial or regional/city government. The minimum wage is generally determined according to the need for a decent living standard and taking into consideration the productivity and growth of economy. For example, in January 2015, the provincial government of DKI Jakarta, through the Governor of DKI Jakarta Province Regulation No. 176 of 2014, increased the minimum wage of DKI Jakarta province for 2015 from Rp2,441,000 per month to Rp2,700,000 per month, which was increased to Rp3,100,000 per month starting from January 1, 2016 as regulated under the Governor of DKI Jakarta Province Regulation No. 230 of 2015. The minimum wage in Jakarta was further increased to Rp3,335,000 per month in 2017, Rp3,648,000 per month in 2018 and Rp3,940,973 per month in 2019. Any increase in minimum wage in Indonesia could have a material adverse effect on the our business, cash flows, financial condition and prospects.

Indonesian accounting standards differ from those in other jurisdictions

Our financial statements are prepared in accordance with Indonesian FAS, which differs from U.S. GAAP. As a result, our financial statements and reported earnings could be significantly different from those that would be reported under U.S. GAAP. This Offering Memorandum does not contain a reconciliation of our financial statements to U.S. GAAP, and there can be no assurance that such reconciliation would not reveal material differences. Accordingly, such information is not available to investors and investors should consider this in making their investment decision. See “Summary of Certain Differences between Indonesian FAS and U.S. GAAP” for a summary of certain differences that may be applicable to us.

Regional or global economic challenges may materially and adversely affect the Indonesian economy and our business

The Asian economic crisis, which began in 1997, had a significant adverse impact on Indonesia causing significant depreciation in the value of the Rupiah and depletion of Indonesia’s currency reserves, among other adverse changes. The economic crisis resulted in the failure of many Indonesian companies to repay their debts when due. These conditions had a material adverse effect on Indonesian business, including our business and financial condition. Indonesia entered a recessionary phase with relatively low levels of growth between 1999 and 2002, although rate of growth has increased in recent years.

There can be no assurance that improved economic conditions will continue or the previous adverse economic condition in Indonesia and the rest of the Asia Pacific region will not occur in the future. In particular, a loss of investor confidence in the financial systems of emerging and other markets, or other factors, may cause increased volatility in the international and Indonesian financial markets and inhibit or reverse the growth of the global economy and the Indonesian economy. Any such increased volatility, slowdown or negative growth could

materially and adversely affect our business, financial condition, results of operations and prospects. In addition, the absence of funding from the IMF, World Bank or similar agencies or creditor support for debt rescheduling, the Government may not be able to secure alternative funding and may default on its payment obligations, which may result in an economic crisis. Funding restrictions may also result in the Government being unable to fund subsidies for staples such as food and fuel which, in turn, could have serious social, economic and political consequences. These may in turn have a material adverse impact on our business and the value of the Notes. The Government may, in connection with future agreements with the World Bank or other lenders, undertake additional economic or structural initiatives the effects of which are presently unknown. Indonesia's economy was significantly affected by the global economic crisis that began in 2008. The current global economic situation could further deteriorate or have a greater impact on Indonesia and our business. Any of the foregoing could materially and adversely affect our business, financial condition, results of operations and prospects.

We are subject to corporate disclosure and reporting requirements that differ from those in other countries

We are subject to corporate governance and reporting requirements in Indonesia that differ, in significant respects, from those applicable to companies in certain other countries. The amount of information made publicly available by the publicly listed companies or issuers in Indonesia may be less than that made publicly available by comparable companies in certain more developed countries, and certain statistical and financial information of a type typically published by companies in certain more developed countries may not be available. As a result, investors may not have access to the same level and type of disclosure as that available in other countries, and comparisons with other companies in other countries may not be possible in all respects.

Downgrades of the credit ratings of Indonesia and Indonesian companies could materially and adversely affect us and the market price of the Notes

In 1997, certain recognized rating agencies, including Moody's and Standard & Poor's, downgraded Indonesia's sovereign rating and the credit ratings of various credit instruments of the Government and a large number of Indonesian banks and other companies. As of the date of this Offering Memorandum, Indonesia's sovereign foreign currency long-term debt is rated "Baa2" by Moody's, "BBB" by Standard & Poor's and "BBB" by Fitch, and its short-term foreign currency debt is rated "P-3" by Moody's, "A-2" by Standard & Poor's and "F2" by Fitch with a stable outlook from Moody's, a stable outlook from Standard & Poor's and a stable outlook from Fitch. These ratings reflect an assessment of the Government's overall financial capacity to pay its obligations and its ability or willingness to meet its financial commitments as they become due.

Moody's, Standard & Poor's, Fitch or any other rating agencies may downgrade the credit ratings of Indonesia or Indonesian companies. Any such downgrade could have an adverse impact on liquidity in the Indonesian financial markets, the ability of the Government and Indonesian companies, including us, to raise additional financing and the interest rates and other commercial terms at which such additional financing is available and could have a material adverse effect on us.

Risks Relating to the Notes and the Guarantee

The Issuer's ability to pay the principal and interest on the Notes and the Parent Guarantor's ability to guarantee the Issuer's obligations on the Notes may be affected by the offering structure for the Notes and our corporate organization structure

The Issuer is not the holding company of any of the Group's other subsidiaries and has no equity interest in any of the Group's other subsidiaries, joint ventures or minority investments. The Issuer has access only to its own assets and to the cash flow that it generates from its own operations, but does not have access to the other assets or cash flows of the Group, nor does it own, or have access to any distribution on, capital stock from any of the other Group's other subsidiaries.

The Parent Guarantor is a holding company that holds operating subsidiaries and joint ventures in Indonesia and certain other countries and will rely upon dividends and other payments from its direct and indirect subsidiaries to generate the funds necessary to meet its obligations under the Parent Guarantee. Each subsidiary,

however, is a separate and distinct legal entity and will have no obligation, contingent or otherwise, to make funds available, whether by dividend, distribution, loan or other payment, to the Parent Guarantor to fulfill its obligation under the Parent Guarantee. From time to time, the agreements covering indebtedness of the Parent Guarantor's subsidiaries and joint venture investments may contain restrictions on making any dividend payments prior to repayment of that indebtedness. In addition, to the extent the Parent Guarantor does not wholly own all of its subsidiaries, any distribution on capital stock by any operating subsidiary will also be made to other minority shareholders in proportion to their respective equity ownership, which may substantially limit the amount the funds available for the Parent Guarantor to fulfill its obligations under the Parent Guarantee. Also, indebtedness of the subsidiaries of the Parent Guarantor (other than the Issuer) and equity interests of the subsidiaries not held by the Parent Guarantor will effectively rank ahead of the Guarantee. There are also legal constraints, such as restrictions relating to foreign exchange controls, transfer approvals or withholding taxes, a lack of retained earnings or the solvency of the Parent Guarantor's subsidiaries which may limit the amounts that the subsidiaries can provide to the Parent Guarantor. If distributions from the subsidiaries to the Parent Guarantor are eliminated, delayed, reduced or otherwise impaired, the Parent Guarantor's ability to fulfill its obligations under the Parent Guarantee would be substantially impaired.

Only the Issuer and any future Subsidiary Guarantors will be subject to the restrictive provisions contained in the indenture, including restrictions on the incurrence of indebtedness

Only the Issuer and future Subsidiary Guarantors (if any) will be subject to the restrictive provisions contained in the indenture governing the Notes, including restrictions on the incurrence of indebtedness. As of December 31, 2018 and June 30, 2019, the Parent Guarantor had total consolidated assets of US\$7,060.8 million and US\$7,157.4 million, respectively, and total consolidated liabilities of US\$2,758.1 million and US\$2,714.0 million, respectively. As of December 31, 2018 and June 30, 2019, the Issuer's total standalone assets (before the elimination of intragroup balances) was US\$2,252.0 million and US\$2,370.1 million, respectively, and total standalone liabilities (before the elimination of intragroup balances) was US\$1,644.5 million and US\$1,620.7 million.

The Parent Guarantor and its subsidiaries other than the Issuer (unless designated as Subsidiary Guarantors under the indenture in the future) will generally not be subject to the restrictive provisions of the indenture. There will be no limitation in the indenture on the amount of indebtedness (including secured indebtedness) the Parent Guarantor or these other subsidiaries may incur in the future.

The Guarantee is structurally subordinated to liabilities and obligations of each of the subsidiaries of the Group

The Notes are guaranteed initially only by the Parent Guarantor. The Notes will not be guaranteed initially by any other member of the Group. The proceeds of the Notes may be used to finance the operations of some of these other Group companies and even though the Parent Guarantor holds interests in important business operations and assets through these entities, none of them will guarantee the Issuer's obligations under the Notes. As a result, (i) the Issuer's obligations under the Notes and the obligations of the Parent Guarantor under the Guarantee will be effectively subordinated to all existing and future obligations of the existing or future non-guarantor subsidiaries of the Group and (ii) all claims of creditors of the existing or future non-guarantor subsidiaries, including trade creditors, lenders and all other creditors, and rights of holders of preferred shares of such entities (if any) will have priority as to the assets of such entities over claims of the Issuer and the Parent Guarantor and those of creditors of the Issuer and the Parent Guarantor, including the noteholders.

The OJK (the Indonesian Financial Services Authority) may require the Parent Guarantor's Guarantee to be proportionate to the total equity in the Issuer directly or indirectly held by the Parent Guarantor, and such event would not constitute an event of default or trigger an obligation to make an offer to purchase the Notes

The rules applicable to a listed or public company in Indonesia include Regulation IX.E.2 on Material Transactions and Change of Main Business Activities, issued on November 28, 2011 and Regulation IX.E.1 on Affiliated Parties and Conflicts of Interests, which are intended to provide more legal certainty and protection to independent shareholders. The regulations require, among other things, that certain borrowing or lending

transactions involving a listed or public company or its subsidiaries having a transaction value of 20% to 50% of the listed or public company's equity to be publicly announced by the end of the second working day following the transaction and to be subject to an independent appraisal report as to, among other things, the overall fairness of the transaction and whether it represents a conflict of interest (in which case independent shareholder approval is required to enter into the transaction). There is a lack of clarity under Indonesian law and as a matter of OJK policy whether a listed parent company can fully guarantee a debt obligation of a subsidiary that it does not wholly own.

The Parent Guarantor indirectly owns 88.47% of the Issuer's shares and the remaining 11.53% of the Issuer's shares are owned by EGAT International Company Limited. See "Principal Shareholders." It is possible that in the future the OJK or any successor entity may implement a regulation or apply an interpretation that requires a certain level of ownership of a subsidiary in order for a parent entity to fully guarantee any obligations of the subsidiary. If the OJK Indonesian government introduces such a regulation or interpretation, then the Guarantee by the Parent Guarantor could be required to be made proportionate to the Parent Guarantor's direct or indirect ownership in the equity of the Issuer. Under the terms of the Notes, the limitation of the Parent Guarantor's Guarantee in this way would not be an event of default and would not obligate the Issuer or any other person to make an offer to purchase the Notes.

The terms of the Notes will contain covenants limiting the Issuer's financial and operating flexibility

Covenants contained in the indenture governing the Notes will restrict the ability of the Issuer among other things:

- incur additional debt;
- issue redeemable and preferred stock;
- create liens;
- sell or otherwise dispose of assets;
- enter into mergers or consolidations;
- enter into transactions with affiliates; and
- enter into new lines of business.

All of these covenants are subject to limitations, exceptions and qualifications described in "Description of Notes — Certain Covenants." These covenants could limit the Issuer's ability to pursue its growth plan, restrict its flexibility in planning for, or reacting to, changes in its business and industry and increase its vulnerability to general adverse economic and industry conditions. The Issuer may enter into additional financing arrangements in the future which could further restrict its flexibility.

Any defaults of covenants contained in the Notes may lead to an event of default under the Notes and the indenture and may lead to cross-defaults under other indebtedness of the Issuer and the Parent Guarantor. No assurance can be given that the Issuer or the Parent Guarantor will be able to pay any amounts due to holders of the Notes in the event of such default, and any default may significantly impair the Issuer's ability to pay, when due, the interest of and principal on the Notes.

Indebtedness of the Issuer and the Parent Guarantor could adversely affect their respective obligations under the Notes and the Guarantee

As of June 30, 2019, after giving pro forma effect for issuance (before deducting fees, issuance discount, underwriting discount, commissions and other expenses) of the Notes, the Issuer would have had US\$1,267.6 million of indebtedness outstanding and the Group would have had US\$1,795.3 million of indebtedness outstanding. In addition, the Issuer will be permitted under the indenture governing the Notes to incur additional

debt, subject to certain limitations. This ability to increase leverage may have important consequences to you, including the following:

- the Issuer and the Parent Guarantor may have difficulty satisfying their obligations under the Notes and the Guarantee and, if they fail to comply with these requirements, an event of default could result;
- the Issuer may have difficulty satisfying the restrictive covenants, financial ratios and other obligations under their other existing or future indebtedness, which may lead to a default under such indebtedness and cross default under the Notes;
- the Issuer may be required to dedicate a substantial portion of its cash flow from operations to required payments on indebtedness, thereby reducing the availability of cash flow for working capital, capital expenditures and other general corporate activities;
- covenants relating to the Issuer's indebtedness may limit its ability to obtain additional financing for working capital, capital expenditures and other general corporate activities;
- certain of the Issuer's borrowings, including borrowings under its senior credit facilities, are at variable rates of interest, exposing it to the risk of increased interest rates; and
- the Issuer may be placed at a competitive disadvantage against any less leveraged competitors.

The occurrence of any one of these events could have a material adverse effect on its business, financial condition, results of operations, prospects and ability to satisfy the obligations under the Notes. There is no assurance that the Issuer's or the Group's business will generate cash in an amount sufficient to enable it to service its debt, or to meet any claims under the Guarantee, or to fund its other liquidity needs.

The interests of the Group's controlling shareholders and other investors may conflict with the interests of holders of Notes

The four principal shareholding families of the Group collectively hold approximately 65% of Adaro Energy's shares and have the power to elect a majority of the Group's directors and commissioners and determine the outcome of actions requiring shareholder approval. The Group's controlling shareholders have other business interests, including other businesses in the coal mining industry, and may take actions that favor those interests over the interests of the Group, which could materially and adversely affect the Group's respective businesses, financial conditions, results of operations and prospects.

The Group may incur additional indebtedness, which could further exacerbate the risks described above

Subject to restrictions in the indenture governing the Notes, the Issuer may incur additional indebtedness which could increase the risks associated with its indebtedness. If the Issuer incurs any additional indebtedness that ranks equally with the Notes, the relevant creditors will be entitled to share ratably with the noteholders in any proceeds distributed in connection with any insolvency, liquidation, reorganization, dissolution or other winding-up of the Issuer or the Parent Guarantor. The Notes would also be structurally subordinated to any indebtedness incurred by any subsidiary of the Issuer in the future and there is no restriction on such incurrence. Either of these would have the effect of reducing the amount of proceeds paid to the noteholders. Covenants in agreements governing debt that the Issuer may incur in the future may also materially restrict its operations, including its ability to incur debt, pay dividends, make certain investments and payments, and encumber or dispose of assets. In addition, financial covenants contained in agreements relating to its future debt could lead to a default in the event that the Issuer's results of operations do not meet its plans and the covenants. A default under one debt instrument may also trigger cross-defaults under other debt instruments. An event of default under any debt instrument, if not cured or waived, could have a material adverse effect on the Issuer.

The Issuer may not be able to generate sufficient cash flows to meet its debt service obligations

The Issuer's ability to make scheduled payments on, or to refinance its obligations with respect to, its indebtedness, including the Notes, will depend on its financial and operating performance, which in turn will be

affected by general economic conditions and by financial, competitive, regulatory and other factors beyond its control. The Issuer may not generate sufficient cash flow from operations and future sources of capital may not be available to it in an amount sufficient to enable it to service its indebtedness, including the Notes, or to fund its other liquidity needs. If the Issuer is unable to generate sufficient cash flow and capital resources to satisfy its debt obligations or other liquidity needs, it may have to undertake alternative financing plans, such as refinancing or restructuring its debt, selling assets, reducing or delaying capital investments or seeking to raise additional capital. Furthermore, certain of the Issuer's assets are the legal property of the Government of Indonesia, see "Regulatory Risks Relating to Our Coal Mining Business — Under the terms of the Coal Cooperation Agreement, certain assets that Adaro Indonesia purchases for its operations based on Adaro Indonesia's work plan become state-owned assets; therefore, Adaro Indonesia's creditors would be unable to foreclose on such assets in a bankruptcy or liquidation." There is no assurance that any refinancing would be possible, that any assets, if owned, could be sold or, if sold, of the timing of the sales and the amount of proceeds that may be realized from those sales, or that additional financing could be obtained on acceptable terms, if at all. In the absence of such operating results and resources, the Issuer could face substantial liquidity problems and might be required to dispose of material assets or operations to meet its debt service and other obligations. Other credit facilities and the indenture that will govern the Notes will restrict the Issuer's ability to dispose of assets and use the proceeds from the disposition. The Issuer may not be able to consummate those dispositions or to obtain the proceeds which it could realize from them and these proceeds may not be adequate to meet any debt service obligations then due. The Issuer's inability to generate sufficient cash flows to satisfy its debt obligations, or to refinance its indebtedness on commercially reasonable terms and in a timely manner, would materially and adversely affect its financial condition and results of operations and the ability of the Issuer to satisfy its obligations under the Notes. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — Indebtedness" and "Description of Notes."

Enforcing your rights under the Notes or the Guarantee across multiple jurisdictions may prove difficult

The Notes will be issued by the Issuer and guaranteed by Adaro Energy. Both the Issuer and Adaro Energy are incorporated under the laws of Indonesia. The Notes, the Guarantee and the indenture are governed by the laws of the State of New York. There is no separate deed of guarantee with respect to the Guarantee or deed of undertaking and acknowledgement that will be governed by the laws of Indonesia. In the event of a bankruptcy, insolvency or similar event, proceedings could be initiated in Indonesia and the United States. Such multi-jurisdictional proceedings are likely to be complex and costly for creditors and otherwise may result in greater uncertainty and delay regarding the enforcement of your rights. Your rights under the Notes and the Guarantee will be subject to the insolvency and administrative laws of several jurisdictions and there can be no assurance that you will be able to effectively enforce your rights in such complex multiple bankruptcy, insolvency or similar proceedings. In addition, the bankruptcy, insolvency, administrative and other laws of Indonesia and the United States may be materially different from, or be in conflict with, each other and those with which you may be familiar, including in the areas of rights of creditors, priority of governmental and other creditors, ability to obtain post-petition interest and duration of the proceeding. The application of these laws, or any conflict among them, could call into question whether any particular jurisdiction's laws should apply, adversely affect your ability to enforce your rights under the Notes and the Guarantee in the relevant jurisdictions or limit any amounts that you may receive.

It may be difficult or impossible for noteholders to pursue claims under the Notes or the Guarantee because of the considerable discretion and uncertainty of the Indonesian legal system

Indonesian legal principles relating to the rights of debtors and creditors, or their practical implementation by Indonesian courts, differ materially from those that would apply within the United States or the European Union. Neither the rights of debtors nor the rights of creditors under Indonesian law are as clearly established or recognized as under legislation or judicial precedent in most United States and European Union jurisdictions. In addition, under Indonesian law, debtors may have rights and defenses to actions filed by creditors that these debtors would not have in jurisdictions such as the United States and the European Union member states.

Indonesia's legal system is a civil law system based on written statutes; judicial and administrative decisions do not constitute binding precedent and are not systematically published. Indonesia's commercial and civil laws were historically based on Dutch law as in effect prior to Indonesia's independence in 1945, and some

have not been revised to reflect the complexities of modern financial transactions and instruments. Indonesian courts may be unfamiliar with sophisticated commercial or financial transactions, leading in practice to uncertainty in the interpretation and application of Indonesian legal principles. The application of Indonesian law depends upon subjective criteria such as the good faith of the parties to the transaction and principles of public policy, the practical effect of which is difficult or impossible to predict. Indonesian judges have very broad fact-finding powers and a high level of discretion in relation to the manner in which those powers are exercised. As a result, the administration and enforcement of laws and regulations by Indonesian courts and Indonesian governmental agencies may be subject to considerable discretion and uncertainty. Furthermore, corruption in the court system in Indonesia has been widely reported in publicly available sources.

Under applicable Indonesian laws and regulations, the Issuer and the Parent Guarantor are required to report details regarding its offshore borrowings to the Minister of Finance of Indonesia, Bank Indonesia (the central bank of Indonesia) and the Team of Offshore Commercial Borrowing (as relevant) on the acceptance, implementation and repayment of principal and interest (as relevant). In addition, the Issuer and the Parent Guarantor are required to periodically submit various other reports regarding its offshore borrowings to Bank Indonesia. The Issuer and the Parent Guarantor will undertake in the indenture governing the Notes to comply with all such requirements in respect of the Notes. The position of the Supreme Court on the impact on offshore borrowings in the event the borrower fails to make the required filings is mixed. Accordingly, the Issuer's and the Guarantor's failure to comply with the reporting requirements could affect the validity of the Notes.

In addition, under the Indonesian Civil Code, although a guarantor may ostensibly waive its right to require the obligee to exhaust its legal remedies against the obligor's assets prior to the obligee exercising its rights under the related guarantee, a guarantor may be able to argue successfully that the guarantor can nonetheless require the obligee to exhaust such remedies before acting against the guarantor. No assurance can be given that an Indonesian court would not side with the Parent Guarantor on this matter, despite the express waiver by the Parent Guarantor of this obligation in the Guarantee.

Furthermore, on September 2, 2013, the holders of notes issued by BLD Investments Pte. Ltd and guaranteed by PT Bakrieland Development Tbk ("Bakrieland"), under a trust deed governed under English law, filed a suspension of debt payment petition with the Indonesian commercial court on grounds including that Bakrieland had failed to comply with its obligation to repay the principal amount of the notes when noteholders exercised their put option under the terms of the notes. In its decision dated September 23, 2013, the Indonesian commercial court ruled, among other things, that the trust deed relating to the notes is governed by English law, all disputes arising out of or in connection with the trust deed must be settled by English courts and, accordingly, that it does not have authority to examine and adjudicate this case.

As a result, it may be difficult for noteholders to pursue a claim against the Issuer or the Parent Guarantor in Indonesia, which may adversely affect or eliminate entirely noteholders' ability to obtain and enforce a judgment against the Issuer or the Parent Guarantor in Indonesia or increase noteholders' costs of pursuing, and the time required to pursue, claims against the Issuer or the Parent Guarantor. In addition, the lack of a separate Indonesian law governed deed of guarantee with respect to the Guarantee means that any foreign court judgment obtained with respect to a claim against the Group's assets in Indonesia under the New York law governed Guarantee would have to be re-examined before the Indonesian courts. See "Enforceability of Foreign Judgments."

Indonesian companies have filed suits in Indonesian courts to invalidate transactions with structures similar to this offering of the Notes and the Guarantees and have brought legal action against lenders and other transaction participants; moreover, such legal actions have resulted in judgments against such defendants invalidating all obligations under the applicable debt instruments and in damages against such defendants in excess of the amounts borrowed

Under the Indonesian Civil Code, a guarantor of a debt obligation may waive its right to require the beneficiary of the guarantee to exhaust its legal remedies against the principal obligor's assets prior to the beneficiary exercising its rights against the guarantor under the guarantee. Although the Guarantees include a waiver of this right, the Guarantors have been advised by their Indonesian counsel that the Indonesian Guarantors

may, nonetheless, require that a beneficiary of the Guarantees first prove that all available legal remedies against the Issuer, as the obligor, have been exhausted. See “— It may be difficult or impossible for noteholders to pursue claims under the Notes or the Guarantee because of the considerable discretion and uncertainty of the Indonesian legal system.”

In several court cases in Indonesia, Indonesian companies that had defaulted on debt incurred through offshore entities and guaranteed by Indonesian companies have sued their creditors under such debt to, among other things, invalidate their debt obligations, and have sought damages in amounts exceeding the original principal amounts of the relevant debt from such creditors. In a case which was subsequently settled, an Indonesian court voided the transaction documents under a transaction involving a guarantee issued by an Indonesian company of the debt of an offshore subsidiary. In another case, an Indonesian court declared a loan agreement between an offshore entity and its creditors null and void and awarded damages to the defaulting borrower. The courts’ reports of these decisions do not provide a clear factual basis or legal rationale for the judgments.

Publicly available reports, including those court decisions, do not provide a clear factual basis or legal rationale for these judgments. In reaching these decisions, however, the courts have not appeared to follow the contractual selection of non-Indonesian law as the governing law. These courts have in certain instances barred the exercise of any remedies available to the investors anywhere in the world.

Under the June 2006 Decision that was released in November 2006, the Indonesian Supreme Court affirmed a lower court judgment that invalidated US\$500 million of notes (the “Indah Kiat Notes”) issued by Indah Kiat International Finance Company B.V., a Dutch subsidiary of Indah Kiat that were guaranteed by Indah Kiat. The Indonesian courts nullified the Indah Kiat Notes and ruled that the defendants (including the trustee, underwriter and security agent for the issuance of the notes) committed an unlawful act (*perbuatan melawan hukum*) on the basis that the contracts made in relation to the notes were signed without any legal cause, and thus did not meet the provision of Article 1320 of the Indonesian Civil Code that requires a legal cause as one of the elements for a valid agreement. The Indonesian courts also ruled that the establishment of Indah Kiat BV was unlawful as it was intended to avoid Indonesian withholding tax payments. However, the June 2006 Decision was further annulled by the Indonesian Supreme Court on a civil review (*peninjauan kembali*) under the August 2008 Decision on the basis that the claim should have been brought in the courts of New York and not a District Court of Indonesia, as the agreements were governed by New York law.

Despite the above, the Indonesian Supreme Court has taken a contrary view with respect to Lontar Papyrus, a sister company of Indah Kiat. In the March 2009 Decision, the Indonesian Supreme Court refused a civil review of a judgment by the District Court of Kuala Tungkal, which invalidated US\$550 million of notes issued by APP International, a Dutch subsidiary of Lontar Papyrus, and guaranteed by Lontar Papyrus on reasons that the loan agreement between APP International and Lontar Papyrus and the indenture must conform with the prevailing laws and regulations in Indonesia. The March 2009 Decision effectively affirmed the lower court’s decision to invalidate all of the transaction documents, and the verdict is now final.

The Indonesian legal system does not recognize the doctrine of *stare decisis*, the doctrine that preceding decisions by a court will subsequently bind later courts, as would be the case in common law jurisdictions such as the United States and the United Kingdom. This means that while lower courts are not bound by the Indonesian Supreme Court’s decisions, such decisions have persuasive force. Therefore, there can be no assurance that in the future a court will not issue a similar decision to the June 2006 Decision or the March 2009 Decision in relation to the validity and enforceability of the Notes and the Guarantees or grant additional relief to the detriment of holders of the Notes, if the Issuer were to contest efforts made by holders of the Notes to enforce these obligations.

Furthermore, holders of the Notes may have difficulty in enforcing any rights under the Notes, the Guarantees or the other transaction documents in Indonesia, where most of our assets are located. Depending on the recognition foreign courts grant to such Indonesian decisions, the holders of the Notes may also be precluded from enforcing any right under the Notes, the Guarantees or the transaction documents, or collecting on the Issuer’s or the Guarantors’ respective assets, anywhere else in the world.

Affirmative relief, if granted against the holders of the Notes by Indonesian courts, may be enforced by foreign courts against the assets of the holders of the Notes (or other transaction participants) located outside Indonesia (and each holder of the Notes should seek legal advice in that regard). As a result, your participation as a holder of Notes in this transaction may expose you to affirmative verdicts by Indonesian courts (beyond the value of the Notes you purchased).

An Indonesian court has limited certain rights of the trustee, acting on behalf of the holders of U.S. dollar bonds, in relation to the parent guarantor, in a decision that affected the holders' rights and the terms of the bonds in connection with a debt restructuring of the parent guarantor

Indonesian law does not recognize equitable principles in general including, without limitation, the relationship of trustee and beneficiary or other fiduciary relationships as would be the case in common law jurisdictions. In several court-supervised debt restructuring proceeding in Indonesia, known as a PKPU proceeding, the PKPU administrator and the Supervisory Judges at the Commercial Court had failed to acknowledge the noteholders or the trustee as creditors of the parent guarantors under the guarantee arrangement in a financing scheme similar to this offering, and gave no effect to the guarantee.

On December 8, 2014, in BTEL PKPU, the Supervisory Judge determined that the relevant creditor of BTEL in respect of the US\$380 million of notes was BTEL's SPV issuer under an intercompany loan arrangement similar to this offering, rather than the noteholders or the trustee. As a result, only the SPV issuer had standing as a BTEL's creditor to vote in the BTEL PKPU proceedings, which substantially altered the terms of the U.S. dollar-denominated bonds and the guarantee. Similarly, in Trikonsel's PKPU proceedings, the PKPU administrators rejected claims that arose from its two tranches of Singapore dollar-denominated bonds and determined that the trustees did not have any standing to make claims on behalf of the noteholders. Further, they asserted that only individual noteholders that had filed claims on their own would be able to participate in the PKPU proceedings and vote on the restructuring plan. This stance was further affirmed by the Commercial Court and the Trikonsel PKPU was settled on September 28, 2016, through the ratification of a composition plan (*rencana perdamaian*) by the Commercial Court. Based on an announcement from Trikonsel, under the composition plan, the bondholders of these two tranches of Singapore dollar-denominated bonds may be required to convert their notes into new shares to be issued by Trikonsel, thereby extinguishing the bonds.

An Indonesian law requiring agreements involving Indonesian parties to be written in the Indonesian language and the fact that the indenture and certain documents entered into in connection with the issuance of the Notes will be made and prepared in the Indonesian language as required under the law may raise issues as to the enforceability of agreements entered into in connection with the offer and sale of the Notes and the Guarantee

Pursuant to Law No. 24 of 2009 on Flag, Language, Coat of Arms, and National Anthem ("Law No. 24/2009") and Presidential Regulation No. 63 of 2019 on Use of Bahasa Indonesia ("PR No. 63/2019"), agreements to which Indonesian parties are a party are required to be executed in Bahasa Indonesia, although, when a foreign entity is a party, a dual-language document in English or the national language of the relevant party is permitted. Under PR No. 63/2019 in the event of a discrepancy or inconsistency, the prevailing language must be the language agreed between the parties in the agreement.

On June 20, 2013, the West Jakarta District Court released Decision No. 451/Pdt.G/2012/PN.Jkt.Bar (the "June 2013 Decision"), which annulled a loan agreement between an Indonesian borrower, namely PT Bangun Karya Pratama Lestari as plaintiff, and a non-Indonesian lender, Nine AM Ltd as defendant. The loan agreement was governed by Indonesian law and was drafted only in the English language. In the June 2013 Decision, the court held that as the agreement had not been drafted in the Indonesian language, as required by Article 31(1) of Law No. 24/2009, it therefore failed to satisfy the "lawful cause" requirement under the Indonesian Civil Code and was void from the outset, meaning that a valid and binding agreement had never existed. The June 2013 Decision was affirmed by the Jakarta High Court (in other jurisdictions, the Court of Appeal) in its decision issued on May 7, 2014 and further affirmed by the Supreme Court under its decision issued on August 31, 2015 that upheld two lower court decisions reached by the Jakarta High Court and West Jakarta District Court. However, Indonesian court decisions are generally not binding precedents, as would typically be the case in common law jurisdictions.

The indenture governing the Notes and certain other agreements in connection with this offer and sale of the Notes and the Guarantee will be prepared in dual language English and Bahasa Indonesia. All transaction documents will provide that in the event of a discrepancy or inconsistency, the English versions of the transaction documents will prevail; however, we cannot assure you that an Indonesian court would hold that the English language version would prevail. Furthermore, some concepts in the English language may not have a corresponding term in the Indonesian language and the exact meaning of the English text may not be fully captured by the Indonesian language version. If this occurs, there can be no assurance that the terms of the Notes, including the indenture, will be as described in this Offering Memorandum, or will be interpreted and enforced by the Indonesian courts as intended.

The Issuer may not have the ability to raise the funds necessary to finance an offer to repurchase the Notes upon the occurrence of certain events constituting a change of control as required by the indenture governing the Notes and the events constituting a change of control under the Notes are limited

Upon a Change of Control (as defined in the indenture governing the Notes), the Issuer must make an offer to repurchase all outstanding Notes. Pursuant to this offer, the Issuer must repurchase the outstanding Notes at 101% of their principal amount plus accrued and unpaid interest, if any, up to the date of repurchase. See “Description of Notes — Repurchase at the Option of Holders — Change of Control.” However, the Issuer may not have enough available funds upon the occurrence of a Change of Control to make repurchase of tendered outstanding Notes. The Issuer’s failure to make the offer to repurchase or repurchase tendered Notes would constitute an Event of Default (as defined in the indenture governing the Notes). This Event of Default may, in turn, constitute an event of default under other indebtedness, any of which could cause the related debt to be accelerated after any applicable notice or grace periods. If such other debt were accelerated, the Issuer may not have sufficient funds to repurchase the Notes and repay the debt.

In addition, the definition of Change of Control does not necessarily afford protection for the holders of the Notes in the event of some highly-leveraged transactions, including certain acquisitions, mergers, refinancings, restructurings or other recapitalizations, although these types of transactions could increase Adaro Indonesia’s indebtedness or otherwise affect its capital structure or credit ratings and the holders of the Notes. The definition of “Change of Control” for purposes of the indenture also includes a phrase relating to the sale of “all or substantially all” of the properties or assets of the Issuer and the subsidiaries of the Group taken as a whole. Although there is a limited body of case law interpreting the phrase “substantially all,” there is no precise established definition under applicable law. Accordingly, Adaro Indonesia’s obligation to make an offer to repurchase the Notes, and the ability of a holder of Notes to require the Issuer to repurchase the Notes pursuant to the offer, as a result of a highly leveraged transaction or a sale of less than all of Adaro Indonesia’s assets, may be uncertain.

Moreover, a Change of Control, as defined in the indenture governing the Notes, would occur only upon a transfer of all or substantially all of the assets of the Issuer, a liquidation of the Issuer, or if the Parent Guarantor ceases to hold at least 60% of the voting stock of the Issuer. The Change of Control definition does not include any change of control of the Parent Guarantor. As such, there could be a change of control of the Parent Guarantor without a corresponding Change of Control under the Notes which would require the Issuer to repurchase the Notes.

The ratings assigned to the Notes may be lowered or withdrawn

The ratings assigned to the Notes may be lowered or withdrawn entirely in the future. The Notes have been assigned a rating of “BBB-” by Fitch and “Ba1” by Moody’s. The ratings address Adaro Indonesia’s and the Parent Guarantor’s ability to perform their respective obligations under the terms of the Notes and the Guarantee and credit risks in determining the likelihood that payments will be made when due under the Notes. A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time. No assurances can be given that a rating will remain for any given period of time or that a rating will not be lowered or withdrawn entirely by the relevant rating agency if in its judgment circumstances in the future so warrant. The Issuer has no obligation to inform holders of the Notes of any such revision, downgrade or withdrawal. A suspension, reduction or withdrawal at any time of the rating assigned to the Notes may adversely affect the market price of the Notes.

Most of the covenants contained in the indenture will be suspended if the Notes obtain an investment grade rating from one rating agency

Most of the covenants in the indenture governing the Notes will be suspended if the Notes obtain an investment grade rating, including the limitation on asset sales, incurrence of indebtedness and transactions with affiliates. The protections provided by these covenants will cease to be in effect for as long as at least one investment grade rating is maintained.

An active trading market for the Notes may not develop, and the trading price of the Notes could be materially and adversely affected

The Notes are a new issue of securities for which there is currently no trading market. The Issuer and the Parent Guarantor have been advised that the Initial Purchasers intend to make a market in the Notes, but are not obligated to do so and may discontinue such market making activity at any time without notice. The Issuer and the Parent Guarantor cannot predict whether an active trading market for the Notes will develop or be sustained. If an active trading market were to develop, the Notes could trade at prices that may be lower than the initial offering price. The liquidity of any market for the Notes depends on many factors, including:

- the number of holders of Notes;
- the interest of securities dealers in making a market in the Notes;
- prevailing interest rates and the markets for similar securities;
- general economic conditions; and
- Adaro Indonesia's or the Parent Guarantor's financial condition, historical financial performance and future prospects.

If an active market for the Notes fails to develop or be sustained, the trading price of the Notes could be materially and adversely affected. Approval in-principle has been received for the listing and quotation of the Notes on the SGX-ST. However, no assurance can be given that the Issuer will be able to obtain or maintain such listing or that, if listed, a trading market will develop. The Issuer does not intend to apply for listing of the Notes on any securities exchange other than the SGX-ST. Lack of a liquid, active trading market for the Notes may adversely affect the price of the Notes or may otherwise impede a holder's ability to dispose of the Notes.

The transfer of the Notes is restricted which may adversely affect their liquidity and the price at which they may be sold

The Notes and the Guarantee have not been registered under, and the Issuer is not obligated to register the Notes or the Guarantee under, the Securities Act or the securities laws of any other jurisdiction and, unless so registered, may not be offered or sold except pursuant to an exemption from, or a transaction not subject to, the registration requirements of the Securities Act and any other applicable laws. See "Transfer Restrictions." The Issuer has not agreed to or otherwise undertaken to register the Notes and the Guarantee (including by way of an exchange offer), and the Issuer has no intention to do so.

The Notes will initially be held in book entry form, and therefore you must rely on the procedures of the relevant clearing systems to exercise any rights and remedies

The Notes will initially only be issued in global certificated form and held through the DTC and its participants, including Euroclear Bank SA./N.V. ("Euroclear") and Clearstream Banking, *société anonyme*, Luxembourg ("Clearstream"). Interests in the global notes will trade in book entry form only, and notes in definitive registered form, or definitive registered notes, will be issued in exchange for book entry interests only in very limited circumstances. Owners of book entry interests will not be considered owners or holders of Notes. The custodian for the DTC will be the sole registered holder of the global notes representing the Notes. Payments of principal, interest and other amounts owing on or in respect of the global notes representing the Notes will be made to the paying agent which will make payments to DTC. Thereafter, these payments will be credited to

accounts of participants (including Euroclear and Clearstream) that hold book entry interests in the global notes representing the Notes and credited by such participants to indirect participants. After payment to the custodian for DTC, the Issuer will have no responsibility or liability for the payment of interest, principal or other amounts to the owners of book entry interests. Accordingly, if you own a book entry interest, you must rely on the procedures of DTC, Euroclear and Clearstream, and if you are not a participant in the DTC, Euroclear and Clearstream, on the procedures of the participant through which you own your interest, to exercise any rights and obligations of a holder of Notes under the indenture.

Unlike the holders of the Notes themselves, owners of book entry interests will not have the direct right to act upon Adaro Indonesia's solicitations for consents, requests for waivers or other actions from holders of the Notes. Instead, if you own a book entry interest, you will be permitted to act only to the extent you have received appropriate proxies to do so from the DTC, Euroclear and Clearstream. The procedures implemented for the granting of such proxies may not be sufficient to enable you to vote on a timely basis. Similarly, upon the occurrence of an event of default under the indenture, unless and until definitive registered notes are issued in respect of all book entry interests, if you own a book entry interest, you will be restricted to acting through the DTC, Euroclear and Clearstream. The procedures to be implemented through the DTC, Euroclear and Clearstream may not be adequate to ensure the timely exercise of rights under the Notes.

USE OF PROCEEDS

The net proceeds from the issue of the Notes, after deducting underwriting fees and commissions, are expected to be approximately US\$737 million. We intend to use (i) US\$300 million of such net proceeds to repay Adaro Indonesia's existing indebtedness when it falls due under its existing amortization schedules in the first half of 2020, and (ii) the balance of such net proceeds for additional debt repayment, general corporate purposes and capital expenditure of the Group.

EXCHANGE RATES AND EXCHANGE CONTROL

From 1978 to 1997, Indonesia maintained a managed floating exchange rate system under which the Rupiah was linked to a basket of currencies, the composition of which was based on Indonesia's main trading partners. Indonesia has adopted a free floating exchange rate system since August 1997, under which market forces determine the exchange rate for the Rupiah.

The following table sets forth information on the exchange rates between the Rupiah and U.S. dollars based on the middle exchange rate on the last day of each month during the year indicated. The Rupiah middle exchange rate is calculated based on Bank Indonesia's buying and selling rates.

	Exchange rates			Period End
	Low	High	Average	
	(Rp per US\$)			
2014	11,271	12,900	11,878	12,440
2015	12,444	14,728	13,392	13,795
2016	12,926	13,946	13,307	13,436
2017	13,154	13,630	13,384	13,548
2018	13,290	15,253	14,246	14,481
January 2019	14,031	14,474	14,163	14,072
February 2019	13,947	14,119	14,035	14,062
March 2019	14,102	14,324	14,211	14,244
April 2019	14,016	14,237	14,143	14,215
May 2019	14,245	14,513	14,393	14,385
June 2019	14,116	14,346	14,227	14,141
July 2019	13,913	14,160	14,044	14,026
August 2019	14,098	14,344	14,242	14,237
September 2019	13,950	14,218	14,111	14,174
October 2019 (through October 11)	14,135	14,207	14,171	14,139

Source: Statistik Ekonomi dan Keuangan Indonesia (Indonesian Financial Statistics) published monthly by Bank Indonesia; Internet website of Bank Indonesia.

The middle exchange rate between the Rupiah and the U.S. dollar on June 30, 2019 was Rp 14,141 = US\$1.00. The Federal Reserve Bank of New York does not certify for customs purposes a noon buying rate for cable transfers in Rupiah.

Exchange Controls

Law No. 24 of 1999, dated May 17, 1999 on the Flow of the Foreign Exchange System and Exchange Rate System provides that a person may hold and use foreign currency freely in the Republic of Indonesia. The transfer of foreign exchange to and from abroad and the status of the offshore asset or liability of an Indonesian company that falls under certain criteria, however, are subject to disclosure and reporting obligations to Bank Indonesia. To maintain the stability of the Rupiah and to prevent the utilization of the Rupiah for speculative purposes by non-residents, Bank Indonesia has introduced regulations to restrict the movement of Rupiah from banks within Indonesia to offshore banks, an offshore branch of an Indonesian bank, or any investment denominated in Rupiah by foreign parties and/or Indonesian parties domiciled or permanently residing outside Indonesia, thereby limiting offshore trading to existing sources of liquidity. In addition, Bank Indonesia has the authority to request information and data concerning the foreign exchange activities of all people and legal entities that are domiciled, or who plan to be domiciled, in Indonesia for at least one year.

See "Enforceability of the Notes and the Guarantee in Indonesia—Indonesian Regulation of Offshore Borrowings."

Indonesian Law on Currency and Obligation to Use Rupiah in Indonesian Territory

On June 28, 2011, the Government of Indonesia passed Law No. 7 of 2011 on Currency (the "Currency Law"), on March 31, 2015, Bank Indonesia issued Bank Indonesia Regulation No. 17/3/PBI/2015

("PBI 17/3/2015") and on June 1, 2015 Bank Indonesia issued Circular Letter No. 17/11/DKSP ("SEBI 17/11"). Under the Currency Law and PBI 17/3/2015, all parties are required to use Rupiah for cash and non-cash transactions conducted within Indonesia, including (i) each transaction which has the purpose of payment; (ii) settlement of other obligations which must be satisfied with money; and/or (iii) other financial transactions (including deposits of Rupiah in various amounts and types of Rupiah denomination from customers to banks).

Subject to further requirements under PBI 17/3/2015, the obligation to use Rupiah does not apply to (i) certain transactions relating to the implementation of state revenue and expenditure; (ii) the receipt or provision of grants either from or to overseas; (iii) international trade transactions, which includes (a) export and/or import of goods to or from outside Indonesian territory and (b) activities relating to cross border trade in services; (iv) bank deposits denominated in foreign currencies; (v) international financing transactions; or (vi) transactions in foreign currency which are conducted in accordance with applicable laws and regulations, including, among others; (a) a bank's business activities in foreign currency which is conducted based on applicable laws regarding conventional and sharia banks, (b) securities in foreign currency issued by the Indonesian government in primary or secondary markets based on applicable laws, and (c) other transactions in foreign currency conducted based on applicable laws, including the law regarding Bank Indonesia, the law regarding investment and the law regarding Lembaga Pembiayaan Ekspor Indonesia (Indonesia Eximbank).

The Currency Law and PBI 17/3/2015 prohibit the rejection of Rupiah when offered as a means of payment, to settle obligations and/or with respect to other financial transactions within Indonesia, unless there is uncertainty regarding the authenticity of the Rupiah bills offered, or the parties to the transaction have agreed in writing to the payment or settlement of obligations in a foreign currency. Article 10 of PBI 17/3/2015 further explains that the exemption based on such a written agreement between the parties is only applicable to an agreement made with respect to one of the above exempted transactions or transactions related to a strategic infrastructure project.

PBI 17/3/2015 took effect from March 31, 2015, and the requirement to use Rupiah for non-cash transactions was effective from July 1, 2015. Written agreements which were signed prior to July 1, 2015 that contain provisions for the payment or settlement of obligations in foreign currency for non-cash transactions will remain effective until the expiry of such agreements. However, any extension and/or certain amendment of such agreements must comply with PBI 17/3/2015.

According to SEBI 17/11, a business operator in Indonesia must quote the price of goods and/or services in Rupiah and is prohibited from conducting dual quotations where the price of goods and/or services is listed both in Rupiah and a foreign currency, anywhere including on electronic media. The restriction applies to, among others, (i) price tags, (ii) service fees, such as agent fees in the sale and purchase of property, tourism services fee or consultancy services fee, (iii) leasing fees, such as apartment leases, housing leases, office leases, building leases, land leases, warehouse leases or vehicle leases, (iv) tariffs, such as loading/unloading tariff for cargo at the seaport or airplane ticket tariff, (v) price lists, such as a restaurant menu price list, (vi) contracts, such as clauses for pricing or fees, (vii) documents of offer, order, invoice, such as the price clause in an invoice, purchase order or delivery order, and/or (viii) payment evidence, such as the price listed in a receipt.

Further, SEBI 17/11 stipulates that conditional exemptions may apply to certain infrastructure projects, among others, (i) transportation infrastructure, including airport services, seaport procurement and/or services, railway infrastructure and facilities, (ii) road infrastructure, including toll roads and toll bridges, (iii) watering infrastructure, including standard water bearer channel, (iv) drinking water infrastructure, including standard water bearer building, transmission channels, distribution channels, drinking water treatment installation, (v) sanitation infrastructure, including wastewater treatment installation, collector channel and main channel, and waste facility which includes transporter and waste storage, (vi) informatics and technology infrastructure, including telecommunication network and e-government infrastructure, (vii) electricity infrastructure, including power plant, which includes power development sourcing from geothermal, transmission or distribution of electricity, and (viii) natural oil and gas infrastructure, including transmission and/or distribution of natural oil and gas. These exemptions apply if (a) the project has been declared by the central or regional government as a strategic infrastructure project, as evidenced by a formal confirmation letter from the relevant ministry/institution with regards to the project owner; and (b) an exemption approval has been obtained from Bank Indonesia.

A failure to comply with the obligation to use Rupiah in cash transactions will result in criminal sanctions in the form of fines and confinement. A failure to comply with the obligation to use Rupiah in non-cash transactions will be subjected to administrative sanctions in the form of (i) written warning, (ii) fines, and/or (iii) prohibition from undertaking payment activities. Bank Indonesia may also recommend the relevant authorities and institutions to conduct certain actions such as revoking the business license or stopping the business activities of the party which fails to comply with the obligation to use Rupiah in non-cash transactions.

Purchasing of Foreign Currencies Against Rupiah through Banks

On September 5, 2016, Bank Indonesia issued Bank Indonesia Regulation No. 18/18/PBI/2016 on Foreign Exchange Transaction to Rupiah between Banks and Domestic Parties (“PBI 18/18/2016”), as implemented by Member of Bank Indonesia Board of Governor Regulation No. 20/16/PADG/2018 dated August 15, 2018 (“PADG 20/2018”). Under PBI 18/18/2016, any conversion of Rupiah into foreign currency for spot and standard derivative (plain vanilla) transactions that exceed a specific threshold is required to have an underlying transaction and be supported by underlying transaction documents. These thresholds are: (i) the purchase of foreign currency against Rupiah of more than US\$25,000 or its equivalent per month per customer for spot transactions; (ii) the purchase of foreign currency against Rupiah of more than US\$100,000 or its equivalent per month per customer for derivative transactions; (iii) the sales of foreign currency against Rupiah of more than US\$5,000,000 or its equivalent per transaction per customer for forward transactions; and (iv) the sales of foreign currency against Rupiah of more than US\$1,000,000 or its equivalent per transaction per customer for options transaction. According to BI’s policy, the underlying transaction and supporting transaction documents are also required for transactions of foreign exchange structured product in the form of a Call Spread Option, in any amount. Further, the maximum amount of such foreign exchange conversion cannot exceed the value of the underlying transaction.

Under PBI 18/18/2016, the underlying transaction may consist of: (i) domestic and international trade of goods and services; (ii) investment in the form of direct investment, portfolio investment, loans, capital and other investment inside and outside Indonesia; and/or (iii) the granting of facility or financing from a bank in foreign currencies and/or Rupiah for trade and investment activities. Furthermore, PADG 20/2018 extends the scope of underlying transactions of point (iii) above to include sharia principle facilities or financing. The underlying transaction may not include: (i) a placement of funds in banks in the form of, among others, saving account, demand deposit account, time deposit, or Negotiable Certificate Deposit (“NCD”); (ii) money transfers by a remittance company; (iii) undrawn credit facilities, including standby loans and undisbursed loans; or (iv) usage of Bank Indonesia securities in foreign currencies.

Indonesian parties entering into: (i) a foreign exchange spot transaction against Rupiah in an amount exceeding US\$25,000 or its equivalent per month per customer for a spot transaction or US\$100,000 or its equivalent per month per customer for a standard derivative (plain vanilla) transaction, or (ii) a call spread option against Rupiah in any amount, will be required to submit supporting documents to the transacting bank. These documents include a duly stamped or authenticated written statement confirming that: (i) the underlying transaction document is valid and correct, (ii) the amount of foreign currency purchased is or will not exceed the amount stated in the underlying transaction document, and (iii) in case the underlying transaction document is only an estimation, the total needs, purpose of utilization, and date of foreign currencies utilization. For the purchase of foreign currencies not exceeding such thresholds, the Indonesian parties must declare in a duly stamped letter or authenticated written statement that its aggregate foreign currency purchases do not exceed each threshold (as applicable) per month in the Indonesian banking system.

Bank Indonesia also issued Bank Indonesia Regulation No. 18/19/PBI/2016 dated September 5, 2016 on Foreign Exchange Transaction to Rupiah between Banks and Foreign Parties (“PBI 18/19/2016”), as implemented by Member of Bank Indonesia Board of Governor Regulation No. 20/17/PADG/2018 dated August 15, 2018. Similar to PBI 18/18/2016, PBI 18/19/2016 is intended to comprehensively govern foreign exchange transactions against Rupiah in Indonesia. However, unlike PBI 18/18/2016, which targets Indonesian bank customers, PBI 18/19/2016 governs foreign exchange transactions by banks and foreign parties.

PBI 18/19/2016 also requires an underlying transaction if a foreign exchange transaction exceeds certain threshold amounts. The thresholds set forth by PBI 18/19/2016, which are similar to the threshold amounts under PBI 18/18/2016, are: (i) for spot transactions, a purchase of foreign exchange against the Rupiah equivalent of

US\$25,000 per month per foreign party, or its equivalent; (ii) for standard derivative transactions (plain vanilla), the sale and purchase of foreign exchange against the Rupiah equivalent of US\$1,000,000 per transaction per foreign party or per outstanding amount of each derivative transaction per bank, or its equivalent and; (iii) for forward transaction, the sales of foreign currency against Rupiah of more than US\$5,000,000 or its equivalent per transaction per customer; and (iv) for option transactions, the sales of foreign currency against Rupiah of more than US\$1,000,000 or its equivalent per transaction per customer.

The underlying transaction under PBI 18/19/2016 may consist of: (i) domestic and international trade of goods and services; and/or (ii) investment in the form of direct investment, portfolio investment, loans, capital and other investment inside and outside Indonesia. The following transactions are not considered as underlying transactions: (i) Bank Indonesia Certificates for derivative transactions, (ii) a placement of funds in banks (vostro account) in the form of saving account, demand deposit account, time deposit, or NCD; (iii) the granting of facility which has not been withdrawn, such as standby loan and disbursed loan; and (iv) the usage of Bank Indonesia securities in foreign currencies.

Similar to PBI 18/18/2016, PBI 18/19/2016 also requires foreign parties entering into: (i) a foreign exchange spot transaction against Rupiah in an amount exceeding US\$25,000 (or its equivalent) per month per foreign party for a spot transaction and US\$1,000,000 (or its equivalent) per transaction per foreign party or outstanding per bank for a standard derivative (plain vanilla) transaction, or (ii) a call spread option against the Rupiah in any amount, will be required to submit certain supporting documents to the transacting bank. These documents include a duly stamped or authenticated written statement confirming that: (a) the underlying transaction document is valid and correct, (b) the amount of foreign currency purchased is or will not exceed the amount stated in the underlying transaction document, (c) for a call spread option, in case the underlying transaction document is only an estimation of the purchase of foreign currencies against Rupiah, the total needs, purpose of utilization, and date of foreign currencies utilization, and (d) for forward/option transactions, in case the underlying transaction document is only an estimation of the sale of foreign currencies against Rupiah, the source of funds, amount, and availability date of the foreign currencies, in the event that the underlying transaction document is only an estimation. For the purchase of foreign currencies not exceeding such thresholds, the foreign parties must declare in a duly stamped letter or authenticated written statement that its aggregate foreign currency purchases do not exceed each threshold (as applicable) per month per foreign party in the Indonesian banking system. Such written statement may be in the form of e-mail, SWIFT message, negative confirmation or business internet banking.

CAPITALIZATION

The following table shows our capitalization (including long-term borrowings and current maturities of long-term borrowings) as of June 30, 2019 on an actual basis and as adjusted to give effect to the offering of the Notes and the application of the proceeds thereof. See “Use of Proceeds.”

You should read this table in conjunction with our interim consolidated financial statements contained elsewhere in this Offering Memorandum and the section in this Offering Memorandum entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

	As of June 30, 2019	
	Actual	As Adjusted
	(US\$ in millions)	
Bank loans	1,158.8	858.8 ⁽¹⁾
Finance lease payables	173.1	173.1
Loans from a third party	13.4	13.4
Notes to be issued ⁽²⁾	—	750.0
Total debt⁽³⁾	1,345.3	1,795.3
Equity:		
Share capital — authorized 80,000,000,000 shares issued and fully paid 31,985,962,000 shares at par value of Rp100 per share	342.9	342.9
Additional paid-in capital, net	1,154.5	1,154.5
Difference in value from transactions with non-controlling interests	0.6	0.6
Retained earnings	2,333.1	2,333.1
Other comprehensive loss	(58.0)	(58.0)
Total equity	3,773.1	3,773.1
Total capitalization	5,118.4	5,568.4

- (1) The as adjusted bank loans reflect repayment of US\$300 million (at gross amount excluding unamortized financing costs) of Adaro Indonesia’s existing indebtedness when it falls due under its existing amortization schedules in the first half of 2020.
- (2) Before deducting fees, issuance discount, underwriting discount and commissions.
- (3) Total debt is the sum of (i) current and non-current portions of finance lease payables and bank loans and (ii) loans from a third party.

Except as disclosed or contemplated in this Offering Memorandum, there has been no material change in our capitalization since June 30, 2019.

SELECTED FINANCIAL INFORMATION AND OTHER DATA

You should read the selected financial information presented below in conjunction with the consolidated financial statements of the Group and the related notes to these consolidated financial statements included in this Offering Memorandum. You should also read the section of this Offering Memorandum entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Adaro Energy

The following tables present the Group’s selected consolidated financial and other information as of and for the years ended December 31, 2016, 2017 and 2018, as of June 30, 2019 and for the six months ended June 30, 2018 and 2019. The information should be read in conjunction with our audited and unaudited consolidated financial statements and the related notes thereto, which are included elsewhere in this Offering Memorandum. Our historical results of operations, financial position and cash flows are no guarantee of its future operating performance. The consolidated financial statements are prepared and presented in accordance with Indonesian FAS, which differs in certain respects from U.S. GAAP. For a description of certain differences between Indonesian FAS and U.S. GAAP, see “Summary of Certain Differences Between Indonesian FAS and U.S. GAAP.”

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Consolidated Statements of Profit or Loss and Other Comprehensive Income data:					
Revenue	2,524.2	3,258.3	3,619.8	1,610.3	1,775.2
Cost of revenue	(1,839.0)	(2,116.8)	(2,409.5)	(1,118.3)	(1,210.8)
Gross profit	685.3	1,141.5	1,210.2	492.0	564.4
Operating expenses	(151.2)	(183.7)	(194.0)	(89.8)	(114.7)
Other income/(expenses), net	53.5	(6.0)	(124.3)	(10.7)	0.9
Operating income	587.6	951.8	891.9	391.4	450.5
Finance costs	(50.0)	(53.0)	(65.1)	(29.7)	(34.3)
Finance income	9.1	18.7	23.6	12.5	12.0
Share in net (loss)/profit of joint ventures	(0.2)	12.0	(29.4)	12.0	60.0
	(41.1)	(22.3)	(70.9)	(5.3)	37.7
Profit before income tax	546.5	929.5	821.0	386.2	488.3
Income tax expense	(205.8)	(393.1)	(343.5)	(162.1)	(167.1)
Profit for the year/period	340.7	536.4	477.5	224.0	321.2
attributable to owners of the parent entity	334.6	483.3	417.7	195.4	296.9
attributable to non-controlling interests	6.1	53.1	59.8	28.7	24.3
Other comprehensive income /(loss) for the year/period, net	41.1	(18.3)	(8.9)	22.5	(48.7)
Total comprehensive income for the year/period, net of tax	381.8	518.1	468.6	246.6	272.5

	As of December 31,			As of June 30,
	2016	2017	2018	2019
	(US\$ in millions)			
Consolidated Statements of Financial Position:				
ASSETS				
Current Assets				
Cash and cash equivalents	1,076.9	1,206.8	927.9	895.2
Restricted time deposits — current portion	0.0	0.0	0.0	0.0
Available-for-sale financial assets — current portion	—	247.0	89.1	59.2
Trade receivables	300.7	314.7	370.9	406.2
Inventories	73.4	85.5	112.0	108.0
Prepaid taxes — current portion	102.6	74.1	72.3	46.6
Recoverable taxes	10.5	12.5	8.8	14.3
Other receivables	4.4	6.7	6.0	2.7
Derivative financial instruments — current portion	4.0	3.3	—	—
Advances and prepayments — current portion	19.3	28.0	12.5	11.7
Other current assets	0.9	0.4	0.7	0.2
Total current assets	1,592.7	1,979.2	1,600.3	1,544.2
Non-Current Assets				
Restricted time deposits — non-current portion	3.1	8.1	15.6	24.4
Available-for-sale financial assets — non-current portion	—	6.8	14.9	28.3
Investments in joint ventures	46.7	45.8	576.9	617.1
Advances and prepayments — non-current portion	37.5	38.0	56.5	65.9
Prepaid taxes — non-current portion	37.9	43.5	33.5	30.6
Mining properties	2,436.6	2,355.3	2,296.7	2,265.1
Fixed assets	1,544.2	1,506.6	1,609.7	1,715.5
Goodwill	793.6	793.6	793.6	793.6
Deferred tax assets	3.8	8.8	27.3	34.4
Other non-current assets	26.2	28.5	35.6	38.1
Total non-current assets	4,929.5	4,835.0	5,460.5	5,613.2
Total Assets	6,522.3	6,814.1	7,060.8	7,157.4
LIABILITIES				
Current Liabilities				
Trade payables	207.8	279.2	341.8	328.4
Dividends payable	70.9	111.8	83.8	—
Accrued expenses	29.0	37.4	52.2	63.7
Short-term employee benefits liabilities	1.6	2.7	3.3	2.4
Taxes payable	119.0	56.7	82.9	172.3
Royalties payable	42.0	31.3	8.5	52.1
Current maturity of long-term borrowings:				
Finance lease payables	30.9	35.6	37.4	42.2
Bank loans	122.9	201.2	182.7	364.3
Derivative financial instruments — current portion	—	—	17.6	8.4
Other liabilities	20.6	17.5	6.3	10.2
Total current liabilities	644.6	773.3	816.4	1,044.1
Non-Current Liabilities				
Loans from a third party	15.5	15.9	13.4	13.4
Long-term borrowings, net of current maturities:				
Finance lease payables	39.2	49.6	125.3	130.9
Bank loans	1,241.2	1,090.8	1,072.5	794.5
Derivative financial instruments — non-current portion	—	—	2.5	6.8
Deferred tax liabilities	653.4	612.3	539.5	523.7
Post-employment benefits liabilities	49.5	64.9	63.2	70.8
Provision for mine rehabilitation, reclamation and closure	93.0	115.7	125.1	129.8
Total non-current liabilities	2,091.8	1,949.2	1,941.6	1,669.9
Total Liabilities	2,736.4	2,722.5	2,758.1	2,714.0

	As of December 31,			As of June 30, 2019
	2016	2017	2018	
	(US\$ in millions)			
Consolidated Statements of Financial Position:				
EQUITY				
Equity attributable to owners of the parent entity				
Share capital — authorized 80,000,000,000 shares; issued and fully paid 31,985,962,000 shares at par value of Rp100 per share	342.9	342.9	342.9	342.9
Additional paid-in capital, net	1,154.5	1,154.5	1,154.5	1,154.5
Difference in value from transactions with non-controlling interests	7.1	4.1	0.5	0.6
Retained earnings	1,627.6	1,966.7	2,161.3	2,333.1
Other comprehensive income/(loss), net	14.3	0.0	(8.8)	(58.0)
Total equity attributable to owners of the parent entity	3,146.5	3,468.3	3,650.4	3,773.1
Non-controlling interests	639.4	623.4	652.3	670.2
Total Equity	3,785.9	4,091.6	4,302.7	4,443.4
Total Liabilities and Equity	6,522.3	6,814.1	7,060.8	7,157.4

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Consolidated Statements of Cash Flows Data:					
Net cash flows provided from operating activities	675.5	853.7	905.9	513.8	537.8
Net cash flows used in investing activities	(228.4)	(433.4)	(793.2)	(209.1)	(229.6)
Net cash flows used in financing activities	(73.0)	(288.7)	(378.4)	(440.1)	(346.0)
Net increase/(decrease) in cash and cash equivalents	374.1	131.6	(265.6)	(135.3)	(37.8)
Cash and cash equivalents at the end of the year/period	1,076.9	1,206.8	927.9	1,058.0	895.2

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the consolidated financial statements and related notes of the Group for the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2018 and 2019 included elsewhere in this Offering Memorandum. These consolidated financial statements have been prepared in accordance with Indonesian FAS, which differs in certain respects from U.S. GAAP. See "Summary of Certain Differences between Indonesian FAS and U.S. GAAP." Results of operations for any interim period may not be indicative of those for a full fiscal year.

Overview

We are a vertically integrated energy producer with pit-to-power businesses in the coal, power and supporting logistics sectors. Our four primary businesses are Adaro Mining, Adaro Services, Adaro Logistics and Adaro Power. These businesses complement each other and make up our pit-to-power strategy, beginning with Adaro Indonesia's coal mining business focusing on "Envirocoal," throughout the thermal coal supply chain which allows Adaro Indonesia, as well as other members of the Group, to ensure reliable supply and efficient deliveries of coal to our customers, and on to the power business which is a long-term customer for a portion of our coal. These units are supported by Adaro Land, Adaro Water, Adaro Capital and the Adaro Foundation. We believe that our integrated business model enables us to exercise greater control over the coal supply chain from pit to port to power, enhances our ability to meet production and sales goals while minimizing operating costs and provides stable earnings even in periods of fluctuating coal prices.

A brief description of our primary businesses is set forth below.

Adaro Mining: Mining is our core business, generating 92.5% of our revenue in 2018. Historically our mining operations have been focused on thermal coal, through the mining operations of Adaro Indonesia, where it mines "Envirocoal," a relatively low-pollutant thermal coal, and the adjacent Balangan Coal Companies' mining operations in South Kalimantan. We own 88.47% of Adaro Indonesia and 75% of the Balangan Coal Companies and MIP. Presently our thermal coal operations also encompass operations and concessions in South Sumatra and East Kalimantan. Adaro Indonesia is one of the largest single-location coal producers in the southern hemisphere and one of the world's lowest-cost thermal coal producers.

Starting in 2010, we have diversified our mining portfolio by adding metallurgical coal assets to our mining operations through the acquisition of mines in Indonesia in 2010 and 2016 and an interest in the Kestrel Coal Mine in Australia in 2018.

Adaro Services: Our services business focuses on mining contracting and land transportation, primarily through our wholly owned subsidiary SIS, which offers a complete range of supporting services both internally to our mining companies and externally to third parties in the mining industry.

Adaro Logistics: We believe that a critical part of our success is the coal supply reliability that we provide to our customers. We manage and coordinate the marine logistics arm of our coal supply chain with our subsidiaries, most of which are wholly owned, providing coal barging, transshipment and ship loading, channel dredging and maintenance, stevedoring, terminal services and port operations at the Taboneo offshore anchorage and our Pulau Laut onshore port. Through our integrated pit-to-port logistics supply chain, we are able to ensure reliable supply and efficient deliveries of our coal to our customers.

Adaro Power: We entered the large scale power business in 2011 with a view to diversifying into the more stable power generation industry, that is not subject to the fluctuations in coal prices. This downward integration into the power business also means that there is a long-term customer for a portion our coal, subject to agreed terms which would include pricing mechanisms approved by PLN, Indonesia's state-owned electric utility provider. We have operated a smaller scale power plant since 2013 through our subsidiary MSW which operates a 2x30MW coal-fired power plant in Tanjung, South Kalimantan and which, in 2018, was expanded to include a 100kWp solar project at Adaro Indonesia's coal processing and barge loading facility in Kelanis, Central Kalimantan. MSW's power plants primarily power Adaro Indonesia's mining operations, with excess power sold to PLN.

Two of our joint venture projects, BPI and TPI, are expected to generate revenue from the sale of electricity to PLN under take-or-pay PPAs that have terms of 25 years from the respective projects' commercial operation date ("COD"). Payment obligations of PLN under the PPA with TPI are guaranteed by the Government of Indonesia (represented by the Ministry of Finance) in the form of a Business Viability Guarantee Letter ("BVGL"). Payment obligations of PLN under the PPA with BPI is guaranteed by the Government of Indonesia (represented by the Ministry of Finance) together with the Indonesia Infrastructure Guarantee Fund ("IIGF", or *PT Penjaminan Infrastruktur Indonesia*). The cost of coal is passed through under the PPAs. TPI and BPI's revenue depends on meeting the operating parameters set out under the PPAs with PLN. TPI's first unit was commissioned and began commercial operations in September 2019, with the second unit estimated to be commissioned and start commercial operations at the end of 2019. The power plant being constructed by BPI is scheduled to commence operations at the end of 2020 under its PPA, although there is no guarantee that construction will be finished on time or on budget. BPI is a joint venture between Adaro Power (34%), Electric Power Development Co., Ltd. (or J-Power) (34%), and Itochu Corporation (32%). TPI is a joint venture between Adaro Power (65%) and PT EWP Indonesia (subsidiary of Korea East-West Power Co., Ltd.) (35%).

While we are in the process of diversifying our business, the mining of thermal coal, primarily at Adaro Indonesia, remains the most significant portion of our business and is expected to remain so for the near to medium term. For the year ended December 31, 2018 and the six months ended June 30, 2019, we had revenues of US\$3,619.8 million and US\$1,775.2 million, respectively, and Adaro Indonesia's standalone revenue (before the elimination of intragroup transactions) was US\$3,249.1 million, and US\$1,546.4 million, respectively. For the same periods, we had Operational EBITDA of US\$1,407.7 million and US\$690.6 million, respectively and Adaro Indonesia's standalone Operational EBITDA (before the elimination of intragroup transactions) was US\$882.9 million and US\$413.2 million, respectively.

Factors Affecting Our Business and Results of Operations

Our business and results of operations are affected by the following important factors.

Demand for Coal and Coal Production

Our financial performance is significantly impacted by the global coal markets and the demand for coal, particularly the sub-bituminous coal that we mine. According to IHS Markit, global demand for thermal coal has risen in recent years. Such demand is expected to peak in the coming years, despite growing global power generation capacity, as coal-fired power's share of overall global power generation capacity continues to decline. This decline has been primarily in Europe and North America and growing demand from India and Southeast Asia has continued to support growth in demand for thermal coal. Demand for sub-bituminous coal, such as the coal that we produce, is driven by power generation needs in India, the Philippines, Bangladesh, Vietnam and other Southeast Asian countries, where demand for coal-fired power is expected to grow, though this is expected to be offset by decreasing demand for sub-bituminous coal in China, South Korea and Taiwan. See "Coal Mining Industry." For the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2019, we sold 54.1 million tonnes, 51.8 million tonnes, 54.4 million tonnes and 28.8 million tonnes of coal, respectively. Historically, our coal production for each operating concession area was:

	For the Year Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Coal Production (Mt):					
Adaro Indonesia	50.8	47.7	48.3	21.3	25.5
Balangan Coal Companies	1.7	3.2	4.7	2.2	2.3
AMC	0.2	0.9	1.0	0.6	0.6
MIP	—	—	—	—	0.1
Total	<u>52.6</u>	<u>51.8</u>	<u>54.0</u>	<u>24.1</u>	<u>28.5</u>

As we expand our investments and activity in the mining of metallurgical coal, the global demand for this type of coal will also have an impact on our financial performance. Unlike thermal coal, demand for

metallurgical coal is primarily driven by the construction and manufacturing sectors in India and China, which require a significant amount of steel. According to IHS Markit, demand for metallurgical coal is expected to continue to grow as India's steel industry demands more imports to support its growing production and shift towards increased use of blast furnaces and as China's domestic production of metallurgical coal is expected to decline, leading to an increase in demand for imported metallurgical coal. See "Coal Mining Industry." For the year ended December 31, 2018 and six months ended June 30, 2019 we sold 0.8 million tonnes and 0.7 million tonnes of metallurgical coal, respectively and Kestrel Coal Mine, in which we have an effective ownership state of 34.6% interest via a joint venture, sold 4.8 million tonnes and 3.2 million tonnes of metallurgical coal in the year ended December 31, 2018 and the six months ended June 30, 2019, respectively.

Global Coal Price Fluctuations

Coal is a commodity product that is traded internationally. Thermal and metallurgical coal prices are highly cyclical and are subject to significant fluctuations. Factors such as the volume of global coal production (which is impacted by such factors as the development of new mines and the closure of old mines, the discovery of new coal deposits and the expansion of current mine operations), constraints on the supply of coal due to limited transportation networks and the specific demands of coal end-users significantly affect global coal prices. There is no global price standard for coal, because of the wide variety of coal products, and the price of various varieties of coal fluctuates significantly in different geographical markets as transportation costs account for a large share of the total delivered price of thermal coal. In addition, developments that increase the competitiveness of alternative energy sources, such as renewable energy, may decrease global demand for thermal coal and therefore affect thermal coal prices, see "Risk Factors — Operational Risks Relating to Our Coal Mining Business — The use of alternative energy sources for power generation could reduce coal consumption by power generation companies, which could lower prices for our coal" and "The Coal Mining Industry." Regulations aimed at reducing greenhouse gas emissions, such as carbon pricing schemes and carbon taxes, may also affect coal prices. While there is no global price standard for coal, there are a series of benchmarks that are used to determine the market price. Due to the advantages of Envirocoal as well as the lower transportation costs of Indonesian coal, Envirocoal is sold at a premium to these benchmarks, after adjusting for the CV of Envirocoal. Pricing for Indonesian coal is typically achieved through contractual negotiations between buyers and sellers with reference to certain price indices, subject to certain domestic coal price control policies by the Government of Indonesia. See "— Customer Contracts."

The average blended sales price per tonne of our coal, which includes sales from all of our operating mines on a consolidated basis, was US\$43.4, US\$58.7, US\$61.5 and US\$56.8 for the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2019 respectively. In contrast to thermal coal, metallurgical coal demand is largely driven by the performance of the steelmaking industry and industries that consume steel. For more information on coal market prices see "Coal Mining Industry."

Customer Contracts

We generally enter into long-term coal supply agreements with our thermal coal customers for specified committed quantities. Many of our coal sales are obtained through competitive bidding processes held by the buyers. The timing of delivery of such committed quantities is coordinated with the customer to meet their specific needs. Under our long-term coal supply agreements, we typically renegotiate pricing annually using either fixed or index-linked pricing, which provides a reference point off which adjustments are made to reflect coal quality and other factors. We enter into such contracts throughout the year, which helps us manage risks associated with commodity price fluctuation. We sold substantially all of our coal in the year ended December 31, 2018 and six months ended June 30, 2019 under long-term coal supply agreements with terms of one year or more. As of June 30, 2019, we had aggregate commitments to deliver approximately 84.0 million tonnes of coal from June 30, 2019 to December 31, 2022 (approximately 21.3 million tonnes for the year ending December 31, 2019, 30.4 million tonnes for the year ending December 31, 2020, approximately 22.0 million tonnes for the year ending December 31, 2021 and approximately 10.3 million tonnes for the year ending December 31, 2022). In the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2019, we derived approximately 70.0%, 74.6%, 70.9% and 66.5% of our revenues, respectively, from our long-term supply agreements. We currently sell the majority of the coal produced by our mines other than Adaro Indonesia and the Balangan Coal Companies on a spot basis.

Costs of Revenue

Our cost of revenue primarily comprises the cost of overburden removal, coal extraction, crushing, hauling to ports and barging to transshipment points, fuel, spare parts, royalties, depreciation of equipment, equipment maintenance and rental costs, labor, subcontractor fees and other costs. The key factors impacting our production costs include variations in production volume, stripping ratios and distance from the pit to overburden disposal sites.

Our costs of coal production are affected by the strip ratios we face in extracting coal from the mine pits. A strip ratio is the number of bank cubic meters of overburden (rock and soil) that must be removed to access and extract one tonne of coal. Higher strip ratios require us to remove higher amounts of overburden to access coal for mining, resulting in higher production costs. Strip ratios typically vary depending on the geological characteristics of the coal seams mined and tend to be higher in the earlier phases of mining. Our average strip ratio for all of our mining operations was 4.5x, 4.6x, 5.1x and 4.5x for the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2019 respectively.

Coal Sales Royalties for the Government

For our Indonesian concessions that are subject to coal cooperation agreements (Adaro Indonesia and AMC), the Government is entitled to a royalty of 13.5% of coal production. For our concessions that are subject to IUPs (other concessions), the Government is entitled to royalties ranging from 3% to 7% depending on the calorific value of the coal. Gross profit nets out the proceeds on sales of the Government's 13.5% entitlement, but includes the charges for eligible expenses that reduce the amount of cash payments to the Government. As a result of the deduction of charges and set-offs, the cash amounts Adaro Indonesia has historically paid to the Government are less than 13.5% of its gross sales receipts. The Government's share of production is settled in cash prior to the shipment of coal. Therefore, the amount of royalty payable that is settled in cash to the Government depends on the actual volume of sales in that particular period. For the year ended December 31, 2018 and the six months ended June 30, 2019, Adaro Indonesia contributed amounts of US\$356.5 million and US\$176.6 million, respectively.

Indonesian Coal Policies and Regulations

The Government may, from time to time, issue new policies or laws that may adversely affect our mining operations. For instance, on December 31, 2009, the MEMR issued Regulation No. 34 of 2009 on Prioritization of the Supply of Mineral and Coal for Domestic Needs, which was later revoked by MEMR Regulation No. 25 of 2018 concerning Mineral and Coal Mining Business Operation as amended by MEMR Regulation No. 50 of 2018 and MEMR Regulation No. 11 of 2019 ("MEMR Regulation 25 of 2018"). In controlling the mineral and coal sales, MEMR Regulation 25 of 2018 requires producers of coal and other minerals in Indonesia to prioritize the domestic market by selling a portion of production to the domestic Indonesian market. MEMR Regulation No. 25 of 2018 stipulates that coal producers may export their products, provided that they meet the minimum domestic sale percentage applicable to it as determined by the MEMR. Any increase in such requirement to sell coal domestically could result in lower coal prices realized for its coal and, as a result, a decrease in our revenue and margins. In addition, on July 15, 2014, the Minister of Trade ("MoT") issued Regulation No. 39/M-DAG/PER/7/2014 concerning the Provision on Export of Coal and Coal Products as amended by MoT Regulation No. 49 of 2014, MoT Regulation No. 52 of 2018 and as lastly amended by MoT Regulation No. 95 of 2018, which restricted certain domestic Indonesian coal products from being exported.

Other Government policies (including local government policies) that affect our business operations include policies relating to obtaining and maintaining permits and licenses required for coal mining, taxes and levies relating to coal mining and trading, and the environment. We are required to obtain, maintain and renew various permits and approvals from the Government for our coal mining operations. The licenses from the Government or regional governments required for operations of a coal mining business include general corporate, mining, capital investment, labor, environmental, land utilization, forestry and other licenses. The expiration dates of these permits vary depending on the Government authority that issues them.

Any changes to Government policies that affect our ability to obtain and/or maintain permits and licenses required to conduct our business operations could result in a temporary or permanent suspension of certain of our

business activities, which could result in a decrease in our revenue and margins. See “Risk Factors — Regulatory Risks Relating to Our Coal Mining Business — The regulatory framework governing the Indonesian mineral resource and mining industry sectors has undergone significant changes, and could undergo significant changes in the future and adverse changes or developments in mining laws or regulations may be difficult to comply with, may significantly increase our operating costs or may otherwise adversely affect our business, financial condition, results of operations and prospects” and “Regulations — Domestic Market Obligation.”

Acquisitions

One of our growth strategies is to identify and complete sustainable and accretive acquisitions and/or joint ventures. For example, as a natural extension to Adaro Indonesia’s thermal coal operations, the Group has established two joint ventures, TPI and BPI, to develop coal-fired power projects in addition to our wholly-owned subsidiary MSW. We have also fully acquired AMC in 2016. On August 1, 2018, we expanded our metallurgical coal portfolio substantially by acquiring Kestrel, which is jointly managed with EMR Capital Ltd., a specialist private equity mining manager. Kestrel indirectly owns 80% of the Kestrel Coal Mine in Australia. Adaro Energy’s effective economic interest in Kestrel Coal Mine is 34.6%. Our investment in Kestrel, and hence Kestrel Coal Mine, is accounted for on an equity basis. Our share of the acquisition costs for Kestrel Coal Mine was US\$547.4 million, which we funded using internal cash. The equity contributions from us and EMR Capital Ltd. were supplemented by the incurrence of non-recourse indebtedness at the acquisition vehicle.

Factors Affecting Our Mining Services and Logistics Businesses

Revenue in our mining services business is primarily derived from the volumes of overburden removed and coal hauled/transported pursuant to the terms of our contract mining agreements. In our consolidated financial statements, revenue from mining services is shown after eliminating intra-group sales transactions and reflects external revenue from third parties which we refer to as “revenue from mining services.” Our revenues also are driven by the number of customer contracts we are servicing in any period. Our mining services business has primarily served the members of our Group, in addition to several third party customers.

Performance of our mining services activities is dependent on the equipment productivity and reliability manpower deployed to each mining site and may be affected by events and operating conditions, including wet weather, which disrupt our overburden removal and coal hauling activities. The amount of overburden removed is also influenced by changes in our annual or periodic production targets as agreed with our customers, which are in turn dependent on several factors such as global coal prices and market demand. For example, under the agreements made by SIS and third party coal producers, SIS provides equipment through a rental mechanism and provides mining services for overburden removal and hauling. SIS and the customer are required to meet a minimum production level for certain activities and receives a service fee calculated on a monthly basis, based on a formula which adjusts for various factors. Our logistics business is generally impacted by the same factors that affect the performance of our coal and mining services businesses.

Factors Affecting Our Power Business

The financial performance of our power business is impacted by a number of factors, including (1) demand for electricity; (2) the terms of the power purchase agreements with PLN; (3) the ability to complete construction of the power projects on time and on budget and following completion of construction; (4) the ability to operate the plants efficiently, at a minimum, according to the terms of the relevant PPA. Within the power business, BPI and TPI are considered significant investments. Both BPI and TPI’s PPAs with PLN are based on take-or-pay structures for terms of 25 years from the respective project commercial operation dates. Once these projects commence operations their revenue will come from capacity and energy sales to PLN. We have used the equity accounting method to record our investments in both BPI and TPI. The power plant being constructed by TPI is estimated to commence operations at the end of 2019. TPI’s first unit was commissioned and began commercial operations in September 2019, with the second unit expected to be commissioned and commercial operations to begin at the end of 2019. The power plant being constructed by BPI is scheduled to commence operations at the end of 2020 under its PPA although there is no guarantee that construction will be finished on time or on budget. Our power project operated by a subsidiary, MSW, primarily provides power to other members of our Group with excess power sold to PLN. Any sales or electricity to third parties is accounted for under “other revenue.”

Effects of Fluctuations in the Rupiah to U.S. Dollar Exchange Rate

We present our consolidated financial statements in U.S. dollars. Substantially all of our revenue is denominated in U.S. dollars or is U.S. dollar linked. For the year ended December 31, 2018 and the six months ended June 30, 2019, 93% of our revenue was denominated in U.S. dollars or was U.S. dollar linked, and 7% of our net revenue was denominated in Rupiah, respectively. For the same periods, most of our cost of revenue and/or operating expenditure was denominated in U.S. dollars or US dollar linked, which we believe indirectly represents a natural hedge on exposure to fluctuations in foreign exchange rates. We currently do not hedge foreign exchange exposures but we may enter into hedging arrangements in the future if appropriate and consistent with prudent business practices.

Critical Accounting Estimates and Judgments

The preparation of consolidated financial statements in conformity with Indonesian FAS requires management to make judgments, estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the reporting date and the reported amounts of revenue and expenses during the reporting period. Estimates, assumptions and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

We have identified the following matters under which significant judgments, estimates and assumptions are made and where actual results may differ from these estimates under different assumptions and conditions and may materially affect our consolidated financial results or financial position of reported in future periods. For additional detail, please refer to our consolidated financial statements presented elsewhere in this Offering Memorandum.

Income taxes and other taxes

The calculation of income tax expense for each company within our Group requires judgments and assumptions in determining the capital allowances and deductibility of certain expenses during the estimation process. In particular, the calculation of income tax expense for entities within our Group operating under a coal cooperation agreement involves the interpretation of applicable tax laws and regulations.

The revenue of the entities within our Group is sometimes also subject to both final and non-final income tax. Determining the amount of revenue subject to final and non-final tax as well as expenses relating to revenue from the non-final income tax regime requires judgments and estimates.

All judgments and estimates made by management as discussed above may be challenged by the DGT. As a result, the ultimate tax determination becomes uncertain. The resolution of tax positions taken by our Group can take several years to complete and in some cases it is difficult to predict the ultimate outcome. Where the final outcome of these matters is different from the amounts initially recorded, such differences will have an impact on the income tax and deferred income tax provision in the period/year in which this determination is made.

Deferred tax assets, including those arising from tax losses carried forward and temporary differences, are recognized only where it is considered more likely than not that they will be recovered, which depends on the generation of sufficient future taxable profits. Similar to “impairment of non-financial assets” discussed below, assumptions about the generation of future taxable profits are heavily affected by management’s estimates and assumptions regarding the expected production levels, sales volumes, commodity prices, etc., which are subject to risk and uncertainty, and hence there is a possibility that changes in circumstances will alter the projected future taxable profits.

Provision for mine rehabilitation, reclamation and closure

Government Regulation No. 78/2010 (“GR No. 78”) deals with reclamation and post-mining activities for both IUP-Exploration and IUP Production-Operation holders and MEMR Regulation No. 7/2014 deals with

reclamation and post-mining activities in the mineral and coal mining business. The transitional provisions in GR No. 78 make it clear that coal cooperation agreement holders are also required to comply with this regulation. Therefore, Adaro Indonesia, and several of our other subsidiaries, have calculated provisions for reclamation and mine closure based on GR No. 78.

Restoration, rehabilitation and environmental expenditure to be incurred related to the remediation of disturbed areas during the production phase are charged to cost of revenue when the obligation arising from the disturbance occurs as extraction progresses. The reclamation of disturbed areas and decommissioning of mining assets and other long-lived assets will be undertaken several years in the future and precise requirements are constantly changing to satisfy political, environmental, safety and public expectations. As such, the timing and amounts of future cash flows required to settle the obligations at each of the statement of financial position dates are subject to significant uncertainty. Changes in the expected future costs could have a material impact on our consolidated financial statements.

Reserve estimates

Coal reserves are estimates of the amounts of coal that can be economically and legally extracted from our properties. We determine and reports coal reserves under the principles incorporated in the JORC. This is in accordance with the Committee for Mineral Reserves International Reporting Standards for the reporting of coal resources and reserve estimates. In order to estimate coal reserves, assumptions are required about a range of geological, technical and economic factors, including quantities, production techniques, stripping ratios, production costs, transport costs, commodity demand, commodity prices, future capital expenditure, mine closure obligations and exchange rates.

Estimating the quantity and/or calorific value of coal reserves requires the size, shape and depth of coal seams or fields to be determined by analyzing geological data such as drilling samples. This process may require complex and difficult geological judgments to interpret the data.

Because the economic assumptions used to estimate reserves change from year to year and because additional geological data is generated during the course of operations, estimates of reserves may change from year to year. Changes in reported reserves may affect our consolidated financial results and financial position in a number of ways, including the following:

- Asset carrying values may be affected due to changes in the estimated future cash flows.
- Depreciation, depletion and amortization charged to profit or loss may change where such charges are determined based on the unit-of-production method or where the economic useful lives of assets change.
- Provision for mine closure may change where changes in estimated reserves affect expectations about the timing or cost of these activities.
- The carrying value of deferred tax assets/liabilities may change due to changes in estimates of the likelihood of the recoverability of the tax benefits.

Impairment of non-financial assets and fixed assets

The recoverable amount of a cash-generating asset or group of assets is measured at the higher of its fair value less costs of disposal or value in use. The determination of fair value less costs of disposal or value in use requires management to make estimates and assumptions regarding expected production levels, sales volumes, commodity prices (considering current and historical prices, price trends and related factors), reserves (see “Reserve estimates”), operating costs, closure and rehabilitation costs, discount rate and future capital expenditure. These estimates and assumptions are subject to risk and uncertainty, and hence there is a possibility that changes in circumstances will alter these projections, which may have an impact on the recoverable amount of the assets. In such circumstances, some or all of the carrying values of the assets may be further impaired or the impairment charges may be reduced with the impact being recorded in profit or loss.

Pension obligation

The present value of the pension obligation depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost/(income) for pensions include the discount rate, future remuneration changes, employee attrition rates, life expectancy and the expected remaining service periods of employees. Any changes in these assumptions will have an impact on the carrying amount of the pension obligation.

We determine the appropriate discount rate at the end of each period/year. This is the interest rate used to determine the present value of estimated future cash outflows expected to be required to settle the related pension obligation. In determining the appropriate discount rate, we consider the interest rates of high quality corporate bonds (or government bonds, if there is no liquid market for high quality corporate bonds) that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the terms of the related pension obligation.

Other key assumptions for pension obligation benefits are based in part on current market conditions.

Fair value estimation

When the fair values of financial assets and financial liabilities recorded in the consolidated statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including Discounted Cash Flow models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values. Judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments.

Interests in joint arrangements

We have joint arrangements which are structured through joint ventures, being BPI, TPI, Kestrel and PT Dumai Tirta Persada ("DTP").

Judgment is required to determine when we have joint control, which requires an assessment of the relevant activities and when the decisions in relation to those activities require unanimous consent. We have determined that the relevant activities for its joint arrangements are those relating to the financial, operating and capital decisions of the arrangement.

Judgment is also required to classify a joint arrangement as either a joint operation or a joint venture. Classifying the arrangement requires us to assess our rights and obligations arising from the arrangement. Specifically, we consider:

- The structure of the joint arrangement (whether it is structured through a separate vehicle).
- When the arrangement is structured through a separate vehicle, we also consider the rights and obligations arising from the legal form of the separate vehicle, the terms of the contractual arrangement, and other relevant facts and circumstances.

This assessment often requires significant judgment. A different conclusion on joint control and also whether the arrangement is a joint operation or a joint venture, may materially impact the consolidated financial statements.

We conclude that the terms of the contractual arrangements indicate that we have rights to the net assets of the arrangement. We also assessed the other facts and circumstances relating to these arrangements and concluded that the arrangements are joint ventures.

Estimating useful lives of fixed assets

We estimate the useful lives of our fixed assets based on expected asset utilization based on business plans and strategies that also consider expected market behavior. The estimation of the useful lives of fixed assets is

based on our assessment of industry practice, internal technical evaluation and experience with similar assets. The estimated useful lives are reviewed at least each financial period-end and are updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limitations on the use of the assets. It is possible, however, that future results of operations could be materially affected by changes in the estimates brought about by changes in the factors mentioned above.

Components of Results of Operations

Revenue

We derive our revenue primarily from sales of coal, mining services and other revenue streams, including logistics.

The following table shows the breakdown of our revenues and each item as a percentage of our revenues for the periods indicated:

	For the Year Ended December 31,						For the Six Months Ended June 30,			
	2016		2017		2018		2018		2019	
	US\$	%	US\$	%	US\$	% (in millions)	US\$	%	US\$	%
Third Parties:										
Sales of Coal										
Export	1,780.3	70.5	2,448.7	75.2	2,708.5	74.8	1,205.8	74.9	1,345.0	75.8
Domestic	567.0	22.5	592.2	18.2	635.8	17.6	281.4	17.5	283.8	16.0
Sub-total	2,347.3	93.0	3,040.9	93.3	3,344.3	92.4	1,487.2	92.4	1,628.7	91.7
Mining services	111.4	4.4	151.3	4.6	205.9	5.7	89.0	5.5	103.4	5.8
Others (including logistics)	63.6	2.5	65.1	2.0	65.3	1.8	33.5	2.1	36.3	2.0
Related parties Sales of coal	—	—	—	—	3.2	0.1	—	—	6.3	0.4
Others	1.9	0.1	1.0	0.0	1.0	0.0	0.5	0.0	0.5	0.0
Total	<u>2,524.2</u>	<u>100.0</u>	<u>3,258.3</u>	<u>100.0</u>	<u>3,619.8</u>	<u>100.0</u>	<u>1,610.3</u>	<u>100.0</u>	<u>1,775.2</u>	<u>100.0</u>

Cost of revenue

Our cost of revenue for our sales of coal revenue stream includes:

- *Mining costs:* mining costs are fees paid to mining contractors in relation to transporting coal and removing overburden from our mines, which typically increase as mining operations require greater amounts of overburden to be removed resulting in higher production costs;
- *Royalties to the Government:* Under the amended Coal Cooperation Agreement applicable to Adaro Indonesia and AMC, the Government is entitled to receive a “Government Share” of 13.5% of the production in cash at FOB price or at sale point price at the final loading facility owned by the company. At our subsidiaries with mining permits (“IUP”), such as the Balangan Coal Companies and MIP, the Government is entitled to receive a royalty of 3% to 7% (depending on the coal’s caloric value for open-pit mining) from the basis price. The basis price for Government share and royalty calculation is the higher price between the transaction price and the coal benchmark price minus the adjustment cost (i.e., actual cost vs regulated cost, whichever is lower). The calculation and payment procedure of the Government share and royalty shall be conducted in accordance with prevailing laws and regulations in Indonesia;
- *Coal processing costs:* coal processing costs include wages for our workers stationed at our concession areas, geological survey and mine exploration and planning costs and miscellaneous costs related to the supply of support services to our staff, contractors and the communities surrounding its concession area, including health, safety and equipment maintenance and environmental costs;

- *Freight and handling costs:* freight and handling costs relate to shipping administration costs, barging costs, port charges, floating crane costs, ocean freight costs and other shipping operational costs;
- *Depreciation:* depreciation of our fixed assets;
- *Amortization of mining properties:* amortization of our mining properties which is calculated based on units of production;
- *Purchase of coal:* purchase of coal costs represent coal purchased on the spot market in connection with our trading activities; and
- *Mine reclamation and closure costs:* mine reclamation and closure costs represent the provision set up to comply with the Ministerial Regulation of Environment and Forestry No. P.89/MENLHK/SETJEN/KUM.1/11/2016 and GR No. 78 for rehabilitation of the watershed area, reclamation and post-mining activities for coal mining business.

Our cost of revenue for our mining services revenue stream includes:

- *Consumables:* consumables consist of materials used in the ordinary course of business for day-to-day operations, such as fuel, explosives and tires;
- *Depreciation:* depreciation of our fixed assets;
- *Repairs and maintenance:* repairs and maintenance costs relate to the repairing and maintaining of our fixed assets (including replacing parts of the various fixed assets);
- *Employee costs:* employee costs include salaries and other compensation provided to our employees in connection with its mining services; and
- *Subcontractors:* subcontractor costs relate to fees paid to third parties in connection with various subcontracting services required in connection with its mining services.

Our cost of revenue for its other revenue streams, including logistics, includes:

- *Depreciation:* depreciation of our fixed assets; and
- *Consumables:* consumables consist of materials used in the ordinary course of business for day-to-day operations, such as fuel, sand blast and welding wires.

The following table shows the breakdown of our cost of revenues and each item as a percentage of our cost of revenues for the periods indicated:

	For the Year Ended December 31,						For the Six Months Ended June 30,					
	2016		2017		2018		2018		2019			
	US\$ (in millions)	%	US\$ (in millions)	%	US\$ (in millions)	%	US\$ (in millions)	%	US\$ (in millions)	%		
Sales of coal												
Mining	793.4	43.1	928.6	43.9	1,171.0	48.6	538.8	48.2	556.5	46.0		
Royalties to Government	259.2	14.1	346.1	16.4	378.4	15.7	168.7	15.1	188.7	15.6		
Coal processing	144.2	7.8	156.6	7.4	176.3	7.3	86.5	7.7	96.4	8.0		
Freight and handling costs	163.0	8.9	156.9	7.4	185.5	7.7	83.5	7.5	94.3	7.8		
Depreciation	183.2	10.0	178.6	8.4	182.8	7.6	95.2	8.5	87.2	7.2		
Amortization of mining properties	120.8	6.6	120.2	5.7	117.3	4.9	57.1	5.1	62.6	5.2		
Purchase of coal	37.6	2.0	41.1	1.9	—	—	—	—	5.9	0.5		
Mine reclamation and closure costs	8.5	0.5	17.7	0.8	8.5	0.4	3.3	0.3	4.7	0.4		
Coal inventory:												
Beginning balance	30.5	1.7	33.7	1.6	43.1	1.8	43.1	3.9	70.8	5.8		
Ending balance	(33.7)	(1.8)	(43.1)	(2.0)	(70.8)	(2.9)	(68.6)	(6.1)	(60.6)	(5.0)		
Total cost of revenue — sales of coal	1,706.8	92.8	1,936.4	91.5	2,192.2	91.0	1,007.7	90.1	1,106.5	91.4		
Mining services												
Consumables	26.6	1.4	36.8	1.7	45.6	1.9	19.3	1.7	21.2	1.8		
Depreciation	17.7	1.0	22.9	1.1	38.5	1.6	22.3	2.0	18.8	1.6		
Repairs and maintenance	23.9	1.3	41.0	1.9	43.7	1.8	22.5	2.0	16.5	1.4		
Employee costs	16.3	0.9	21.1	1.0	25.4	1.1	13.5	1.2	15.4	1.3		
Subcontractors	8.2	0.4	15.1	0.7	19.9	0.8	10.3	0.9	8.5	0.7		
Others	9.2	0.5	11.5	0.5	13.3	0.6	5.9	0.5	7.2	0.6		
Total cost of revenue — mining services	101.9	5.5	148.4	7.0	186.3	7.7	93.8	8.4	87.6	7.2		
Others (including logistics)												
Depreciation	9.4	0.5	9.5	0.4	9.6	0.4	5.1	0.5	4.9	0.4		
Consumables	4.7	0.3	4.0	0.2	4.7	0.2	2.6	0.2	2.2	0.2		
Others	16.2	0.9	18.6	0.9	16.8	0.7	9.0	0.8	9.7	0.8		
Total cost of revenue — others	30.3	1.6	32.1	1.5	31.1	1.3	16.7	1.5	16.7	1.4		
Total	1,839.0	100.0	2,116.8	100.0	2,409.5	100.0	1,118.3	100.0	1,210.8	100.0		

Operating Expenses

Our operating expenses consist primarily of sales commissions paid to our marketing agents and employee costs.

Finance Costs

Finance costs consists primarily of interest expenses, bank charges, amortization of deferred financing costs and realized gain/loss from interest rate swaps.

Share in Net Profit/(Loss) of Joint Ventures

Our share in net profit of joint ventures represents our proportion of the net profit (or loss) of our equity accounted investments in Kestrel, TPI, BPI and DTP.

Results of Operations

The following table shows the breakdown of our results of operations and each item as a percentage of our revenue for the periods indicated:

	For the Years Ended December 31,						For the Six Months Ended June 30,			
	2016		2017		2018		2018		2019	
	US\$ (in millions)	%	US\$ (in millions)	%	US\$ (in millions)	%	US\$ (in millions)	%	US\$ (in millions)	%
Consolidated statement of profit or loss and other comprehensive income data:										
Revenue	2,524.2	100.0	3,258.3	100.0	3,619.8	100.0	1,610.3	100.0	1,775.2	100.0
Cost of revenue	(1,839.0)	(72.9)	(2,116.8)	(65.0)	(2,409.5)	(66.6)	(1,118.3)	(69.4)	(1,210.8)	(68.2)
Gross profit	685.3	27.1	1,141.5	35.0	1,210.2	33.4	492.0	30.6	564.4	31.8
Operating expenses	(151.2)	(6.0)	(183.7)	(5.6)	(194.0)	(5.4)	(89.8)	(5.6)	(114.7)	(6.5)
Other income/(expense), net	53.5	2.1	(6.0)	(0.2)	(124.3)	(3.4)	(10.7)	(0.7)	0.9	0.1
Operating income	587.6	23.3	951.8	29.2	891.9	24.6	391.4	24.3	450.5	25.4
Finance Costs	(50.0)	(2.0)	(53.0)	(1.6)	(65.1)	(1.8)	(29.7)	(1.8)	(34.3)	(1.9)
Finance income	9.1	0.4	18.7	0.6	23.6	0.7	12.5	0.8	12.0	0.7
Share in net (loss)/profit of joint ventures	(0.2)	(0.0)	12.0	0.4	(29.4)	(0.8)	12.0	0.7	60.0	3.4
	(41.1)	(1.6)	(22.3)	(0.7)	(70.9)	(2.0)	(5.3)	(0.3)	37.7	2.1
Profit before income tax	546.5	21.7	929.5	28.5	821.0	22.7	386.2	24.0	488.3	27.5
Income tax expense	(205.8)	(8.2)	(393.1)	(12.1)	(343.5)	(9.5)	(162.1)	(10.1)	(167.1)	(9.4)
Profit for the year/period	340.7	13.5	536.4	16.5	477.5	13.2	224.0	13.9	321.2	18.1

The following table shows the breakdown of our consolidated operating data for the periods indicated (excluding operations of our joint ventures):

	For the Years Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Key Operating Metrics:					
Coal production (Mt)	52.6	51.8	54.0	24.1	28.5
Coal sales (Mt)	54.1	51.8	54.4	23.8	28.8
Average blended selling price (US\$ per tonne of net sales) ⁽¹⁾	43.4	58.7	61.5	62.5	56.8
Average blended strip ratio(x) ⁽²⁾	4.5	4.6	5.1	5.1	4.5

(1) We calculate average blended selling price per tonne by dividing total consolidated revenue of the coal segment by tonnes of total consolidated coal sales for the years/periods presented, which includes sales from all of our operating mines on a consolidated basis.

(2) Strip ratio is the amount of overburden removed expressed in bcm, to recover one tonne of coal.

Results of Operations of the Group

Six Months Ended June 30, 2019 Compared to the Six Months Ended June 30, 2018

Revenue. Revenue increased 10.2% to US\$1,775.2 million in the six months ended June 30, 2019 from US\$1,610.3 million in the six months ended June 30, 2018.

Revenue from sales of coal increased 9.9% to US\$1,635.0 million in the six months ended June 30, 2019 from US\$1,487.2 million in the six months ended June 30, 2018, constituting 92.1% and 92.4% of our total revenue during those periods, respectively. This increase was primarily due to an increase in sales volume by 21.0% to 28.8 million tonnes in the six months ended June 30, 2019 from 23.8 million tonnes in the six months ended June 30, 2018 which was partially offset by a decrease in average blended selling price by 9.1%.

Revenue from mining services increased 16.2% to US\$103.4 million in the six months ended June 30, 2019 from US\$89.0 million in the six months ended June 30, 2018, constituting 5.8% and 5.5% of the total revenue during the six months ended June 30, 2019 and 2018, respectively. This increase was primarily due to a 10.1% increase in overburden removal partially offset by a 14.3% decrease in coal transport, each in the six months ended June 30, 2019 compared to the six months ended June 30, 2018.

Revenue from others increased 8.2% to US\$36.8 million in the six months ended June 30, 2019 from US\$34.0 million in the six months ended June 30, 2018, constituting 2.0% and 2.1% of the total revenue during the six months ended June 30, 2019 and 2018, respectively.

Cost of revenue. Cost of revenue increased 8.3% to US\$1,210.8 million in the six months ended June 30, 2019 from US\$1,118.3 million in the six months ended June 30, 2018. This increase was primarily due to increased cost of revenue from sales of coal.

Cost of revenue from sales of coal increased 9.8% to US\$1,106.5 million in the six months ended June 30, 2019 from US\$1,007.7 million in the six months ended June 30, 2018. This increase was primarily a result of increased coal sales volumes and royalty payments.

Cost of revenue from mining services decreased 6.6% to US\$87.6 million in the six months ended June 30, 2019 from US\$93.8 million in the six months ended June 30, 2018. This decrease was primarily due to decreased repair and maintenance costs in 2019.

Cost of revenue from others amounted to US\$16.7 million in each of the six months ended June 30, 2019 and 2018.

Gross Profit. As a result of the foregoing, gross profit increased 14.7% to US\$564.4 million in the six months ended June 30, 2019 from US\$492.0 million in the six months ended June 30, 2018. Gross profit margin was 31.8% and 30.6% for the six months ended June 30, 2019 and 2018, respectively.

Operating Expenses. Operating expenses increased 27.7% to US\$114.7 million in the six months ended June 30, 2019 from US\$89.8 million in the six months ended June 30, 2018 primarily due to an increase in professional fees and employee costs.

Finance Costs. Finance costs increased 15.5% to US\$34.3 million in the six months ended June 30, 2019 from US\$29.7 million in the six months ended June 30, 2018 primarily due to an increase in average LIBOR rate.

Share in net profit of joint ventures. Share in net profit of joint ventures increased 400.0% to US\$60.0 million in the six months ended June 30, 2019 from US\$12.0 million in the six months ended June 30, 2018 primarily due to the contribution from Kestrel following our acquisition of the Kestrel joint venture in August 2018.

Income Tax Expense. Income tax expense increased 3.1% to US\$167.1 million in the six months ended June 30, 2019 from US\$162.1 million in the six months ended June 30, 2018 as a result of an increase profit before income tax. Our effective tax rate for the six months ended June 30, 2019 was 34.2% compared to 42.0% for the six months ended June 30, 2018.

Profit for the period. As a result of the foregoing, profit for the period increased 43.4% to US\$321.2 million in the six months ended June 30, 2019 from US\$224.0 million in the six months ended June 30, 2018.

Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017

Revenue. Revenue increased 11.1% to US\$3,619.8 million in 2018 from US\$3,258.3 million in 2017.

Revenue from sales of coal increased 10.1% to US\$3,347.5 million in 2018 from US\$3,040.9 million in 2017, constituting 92.5% and 93.3% of our total revenue during those periods, respectively. This increase was primarily due to increase in sales volumes by 5.0% to 54.4 million tonnes in 2018 from 51.8 million tonnes in 2017, while average blended selling price increased by 4.8%.

Revenue from mining services increased 36.1% to US\$205.9 million in 2018 from US\$151.3 million in 2017, constituting 5.7% and 4.6% of the total revenue during 2018 and 2017, respectively. This increase was primarily due to a 27.2% increase in overburden removal and a 79.6% increase in coal transport from 2017 to 2018.

Revenue from others increased 0.5% to US\$66.3 million in 2018 from US\$66.1 million in 2017, constituting 1.8% and 2.0% of the total revenue during 2018 and 2017, respectively.

Cost of revenue. Cost of revenue increased 13.8% to US\$2,409.5 million in 2018 from US\$2,116.8 million in 2017. This increase was primarily due to increased cost of revenue from sales of coal and mining services.

Cost of revenue from sales of coal increased 13.2% to US\$2,192.2 million in 2018 from US\$1,936.4 million in 2017. This increase was primarily a result of increased sales levels, production costs and royalty payments.

Cost of revenue from mining services increased 25.5% to US\$186.3 million in 2018 from US\$148.4 million in 2017. This increase was primarily due to increased overburden removal and coal transport activity, which resulted in an increase in consumables and depreciation costs.

Cost of revenue from others decreased 3.1% to US\$31.1 million in 2018 from US\$32.1 million in 2017.

Gross Profit. As a result of the foregoing, gross profit increased 6.0% to US\$1,210.2 million in 2018 from US\$1,141.5 million in 2017. Gross profit margin for 2018 and 2017 was 33.4% and 35.0%, respectively.

Operating Expenses. Operating expenses increased 5.6% to US\$194.0 million in 2018 from US\$183.7 million in 2017, primarily due to increases in sales commission and employee costs. The increase in sales commission cost was primarily due to the increase in sales volume.

Finance Costs. Finance costs increased 22.8% to US\$65.1 million in 2018 from US\$53.0 million in 2017, primarily due to an increase in average LIBOR rate.

Share in net profit (loss) of joint ventures. Share in net profit of joint ventures decreased to a loss of US\$29.4 million in 2018 from a gain of US\$12.0 million in 2017 primarily due to the acquisition of Kestrel in August 2018 and the consequent recognition of a portion of its net loss for 2018.

Income Tax Expense. Income tax expense decreased 12.6% to US\$343.5 million in 2018 from US\$393.1 million in 2017 primarily due to a decrease in profit before tax. Our effective tax rate for 2018 was 41.8% compared to 42.3% for 2017.

Profit for the year. As a result of the foregoing, profit for the year decreased 11.0% to US\$477.5 million in 2018 from US\$536.4 million in 2017.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

Revenue. Revenue increased 29.1% to US\$3,258.3 million in 2017 from US\$2,524.2 million in 2016.

Revenue from sales of coal increased 29.5% to US\$3,040.9 million in 2017 from US\$2,347.3 million in 2016, constituting 93.3% and 93.0% of our total revenue during those periods, respectively. This increase was primarily due to increase of coal prices in the period, with average blended selling price increasing 35.3% year on year. This increase in average blended selling prices was partially offset by sales volumes decreasing 4.3% to 51.8 million tonnes in 2017 from 54.1 million tonnes in 2016.

Revenue from mining services increased 35.8% to US\$151.3 million in 2017 from US\$111.4 million in 2016, constituting 4.6% and 4.4% of the total revenue during 2017 and 2016, respectively. This increase was primarily due to increased overburden removal, partially offset by a decrease in coal transported.

Revenue from others increased 0.9% to US\$66.1 million in 2017 from US\$65.5 million in 2016, constituting 2.0% and 2.6% of the total revenue during 2017 and 2016, respectively.

Cost of revenue. Cost of revenue increased 15.1% to US\$2,116.8 million in 2017 from US\$1,839.0 million in 2016. This increase was primarily due to increased cost of revenue from sales of coal and mining services.

Cost of revenue from sales of coal increased 13.5% to US\$1,936.4 million in 2017 from US\$1,706.8 million in 2016. This increase was primarily a result of increased production costs and royalty payments.

Cost of revenue from mining services increased 45.6% to US\$148.4 million in 2017 from US\$101.9 million in 2016. This increase was primarily due to increased overburden removal which resulted in increased repair and maintenance, consumables and subcontractors costs.

Cost of revenue from others increased 5.9% to US\$32.1 million in 2017 from US\$30.3 million in 2016.

Gross Profit. As a result of the foregoing, gross profit increased 66.6% to US\$1,141.5 million in 2017 from US\$685.3 million in 2016. Gross profit margin in 2017 and 2016 was 35.0% in 2017 and 27.1% in 2016, respectively.

Operating Expenses. Operating expenses increased 21.5% to US\$183.7 million in 2017 from US\$151.2 million in 2016 primarily due to increases in sales commission, employee costs and professional fees. The increase in sales commission was primarily due to the increase in sales volume.

Finance Costs. Finance costs increased 6.0% to US\$53.0 million in 2017 from US\$50.0 million in 2016 primarily due to an increase in average LIBOR rate.

Share in net profit (loss) of joint ventures. Share in net profit of joint ventures increased to a gain of US\$12.0 million in 2017 from a loss of US\$0.2 million in 2016. We recorded share in net loss of joint ventures of US\$0.2 million in 2016 primarily due to our 25% share of the AMC entities' losses. In 2016, we acquired an additional 75% of the AMC entities and since then the AMC entities have been consolidated. In 2017, our share in net profit of joint ventures was US\$12.0 million, primarily due to our interests in BPI and TPI.

Income Tax Expense. Income tax expense increased 91.0% to US\$393.1 million in 2017 from US\$205.8 million in 2016 primarily due to an increase in profit before tax. Our effective tax rate was 42.3% for 2017, compared to 37.7% for 2016.

Profit for the year. As a result of the foregoing, profit for the year increased 57.4% to US\$536.4 million in 2017 from US\$340.7 million in 2016.

Liquidity and Capital Resources

Our liquidity requirements relate to funding working capital, capital expenditure (including with respect to exploration and development, acquisitions and equity commitments to joint ventures), debt service and maintaining cash reserves. Net cash flows from operations are our main source of liquidity. When appropriate, we have used medium-to long-term facilities to fund capital expenditures and working capital. After funding operating expenses and working capital, our primary use of cash is to service existing long-term debt. After taking into consideration future cash outflow requirements, any excess cash flow may be distributed to shareholders. Taking into consideration the availability of financial resources, including cash generated from our operating activities, banking facilities and the proceeds of this offering, we believe that we will have sufficient liquidity to meet our working capital, operating requirements and to service our long-term debt for at least the next 12 months.

We intend to use such net proceeds primarily to repay a portion of Adaro Indonesia's existing indebtedness when it falls due under its existing amortization schedules in the first half of 2020, for additional debt repayment, general corporate purposes and capital expenditure of the Group.

Cash Flows

The following table sets forth certain information concerning our historical cash flows:

	For the Year Ended December 31,			For the Six Months Ended June 30,	
	2016	2017	2018	2018	2019
	(US\$ in millions)				
Net cash flows provided from operating activities	675.5	853.7	905.9	513.8	537.8
Net cash flows used in investing activities	(228.4)	(433.4)	(793.2)	(209.1)	(229.6)
Net cash flows used in financing activities	(73.0)	(288.7)	(378.4)	(440.1)	(346.0)
Net increase/(decrease) in cash and cash equivalents	374.1	131.6	(265.6)	(135.3)	(37.8)
Cash and cash equivalents at the beginning of the year/period	702.5	1,076.9	1,206.8	1,206.8	927.9
Cash and cash equivalents at the end of the year/period	1,076.9	1,206.8	927.9	1,058.0	895.2

Operating Activities. Net cash provided from operating activities were US\$675.5 million, US\$853.7 million, US\$905.9 million, US\$513.8 million and US\$537.8 million for the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2018 and 2019, respectively.

Net cash provided from operating activities in the six months ended June 30, 2019 was US\$537.8 million, primarily due to US\$1,740.6 million in receipts from customers, partially offset by US\$809.2 million in payments to suppliers and US\$138.2 million in payments of royalties to the Government.

Net cash provided from operating activities in the six months ended June 30, 2018 was US\$513.8 million, primarily due to US\$1,582.9 million in receipts from customers, partially offset by US\$698.7 million in payments to suppliers and US\$178.6 million in payments of royalties to the Government.

Net cash provided from operating activities in the year ended December 31, 2018 was US\$905.9 million, primarily due to US\$3,564.1 million in receipts from customers, partially offset by US\$1,667.4 million in payments to suppliers, US\$407.4 million in payments of corporate income tax and final income tax and US\$372.4 million in payments of royalties to the Government.

Net cash provided from operating activities in the year ended December 31, 2017 was US\$853.7 million, primarily due to US\$3,271.6 million in receipts from customers, partially offset by US\$1,390.9 million in payments to suppliers, US\$515.5 million in payments of corporate income tax and final income tax and US\$335.6 million in payments of royalties to the Government.

Net cash provided from operating activities in the year ended December 31, 2016 was US\$675.5 million, primarily due to US\$2,417.2 million in receipts from customers, partially offset by US\$1,194.3 million in payments to suppliers, US\$155.5 million in payments of corporate income tax and final income tax and US\$252.6 million in payments of royalties to the Government.

Investing Activities. Net cash used in investing activities were US\$228.4 million, US\$433.4 million, US\$793.2 million, US\$209.1 million and US\$229.6 million for the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2018 and 2019, respectively.

Net cash used in investing activities for the six months ended June 30, 2019 was US\$229.6 million, primarily due to US\$176.7 million used for the purchase of fixed assets.

Net cash used in investing activities for the six months ended June 30, 2018 was US\$209.1 million, primarily due to US\$155.2 million used for the purchase of fixed assets and US\$202.5 million recognized as cash outflow from the advance for share purchase related to the Kestrel acquisition, partially offset by US\$141.9 million in proceeds from sales of available-for-sale financial assets, which primarily comprise Indonesian Government bonds.

Net cash used in investing activities for the year ended December 31, 2018 was US\$793.2 million, primarily due to US\$342.8 million used for the purchase of fixed assets and US\$547.4 million recognized as net cash outflow from investment in joint venture in connection with our investment in Kestrel, partially offset by US\$155.4 million in proceeds from sales of available-for-sale financial assets, which primarily comprise Indonesian Government bonds.

Net cash used in investing activities for the year ended December 31, 2017 was US\$433.4 million, primarily due to US\$309.4 million used for the purchase of available-for-sale financial assets and US\$155.4 million for the purchase of fixed assets, partially offset by US\$56.1 million in proceeds from sales of available-for-sale financial assets, which primarily comprise Indonesian Government bonds.

Net cash used in investing activities for the year ended December 31, 2016 was US\$228.4 million primarily due to US\$77.8 million used for the purchase of fixed assets and US\$119.1 million recognized as net cash outflow from acquisition of subsidiaries in connection with our investment in AMC.

Financing Activities. Net cash used in financing activities were US\$73.0 million, US\$288.7 million, US\$378.4 million, US\$440.1 million and US\$346.0 million for the years ended December 31, 2016, 2017 and 2018 and the six months ended June 30, 2018 and 2019, respectively.

Net cash flows used in financing activities in the six months ended June 30, 2019 was US\$346.0 million, primarily due to US\$141.9 million in repayments of bank loans, US\$200.2 million in payments of dividends to shareholders and US\$14.6 million in payments of dividends to non-controlling interests, partially offset by US\$41.0 million in proceeds from bank loans.

Net cash flows used in financing activities in the six months ended June 30, 2018 was US\$440.1 million, primarily due to US\$141.4 million in repayments of bank loans, US\$250.1 million in payments of dividends to shareholders and US\$50.7 million in payments of dividends to non-controlling interests, partially offset by US\$16.0 million in proceeds from bank loans.

Net cash flows used in financing activities for the year ended December 31, 2018 was US\$378.4 million, primarily due to US\$257.8 million in repayments of bank loans and US\$250.1 million in payments of dividends to shareholders and US\$52.2 million in payments of dividends to non-controlling interests, partially offset by US\$220.0 million in proceeds from bank loans.

Net cash flows used in financing activities for the year ended December 31, 2017 was US\$288.7 million, primarily due to US\$128.8 million in repayments of bank loans, US\$101.1 million in payments of dividends to shareholders and US\$85.5 million in payments of dividends to non-controlling interests, partially offset by US\$50.8 million in proceeds from bank loans.

Net cash flows used in financing activities for the year ended December 31, 2016 was US\$73.0 million, primarily due to US\$144.0 million in repayments of bank loans and US\$75.5 million in payments of dividends to shareholders, partially offset by US\$164.3 million receipt of capital injection from non-controlling interests.

Capital Expenditures

Our historical capital expenditures have been used principally to purchase operational equipment and develop our mining properties. The following table shows our historical capital expenditures for the periods indicated:

	For the			Six Months Ended
	Years Ended December 31,			June 30,
	2016	2017	2018	2019
	(US\$ in millions)			
Acquisition of Fixed Assets ⁽¹⁾	125.6	200.3	485.1	220.8
Development of Mining Properties	32.4	38.9	58.8	30.9
Total expenditures	158.0	239.2	543.9	251.7

(1) Includes the acquisition of operational equipment under finance leases.

Capital expenditure on the acquisition of fixed assets was materially affected in 2018 by a significant equipment purchase by SIS in the amount of US\$269.1 million.

Our estimated capital expenditure for 2020 is expected to be approximately US\$400 million, of which around half is expected to be used by SIS for equipment purchases, around US\$100 million for Adaro Indonesia's land compensation and maintenance, US\$50 million for AMC ramp-up and the remaining for maintenance of the Group.

Indebtedness

As of December 31, 2018 and June 30, 2019, our total indebtedness, including current maturities of long-term indebtedness, was US\$1,450.3 million and US\$1,359.8 million respectively. For more details on the terms of our long-term indebtedness, see "Description of Material Indebtedness."

Contractual Obligations and Contingent Liabilities

Our contracts and commitments relate primarily to our obligations under our borrowings and finance leases. Below is our debt maturity as of June 30, 2019. We also have certain contingent off balance sheet liabilities, see "Description of Material Indebtedness — Off Balance Sheet Loans Guaranteed by Adaro Energy."

	Amount outstanding	Maturity Period			
		Less than 1 year	1-3 years	3-5 years	More than 5 years
		(US\$ in millions)			
Adaro Indonesia's US\$1,000,000,000 Facility Agreement	628.0	144.0	484.0	—	—
Adaro Indonesia's US\$380,000,000 Facility Agreement	198.0	198.0	—	—	—
SIS's US\$350,000,000 Facility Agreement	160.0	—	160.0	—	—
SIS's US\$200,000,000 Facility Agreement	102.0	17.0	85.0	—	—
MBP's US\$120,000,000 Facility Agreement	80.0	10.0	70.0	—	—
Coaltrade's Commercial Property Loan	5.3	0.8	1.6	1.6	1.3
Finance Leases	173.1	42.2	90.4	40.5	—
Far East Investment Ltd	13.4	—	13.4	—	—

Market Risk

Our market risk relates principally to fluctuations in commodity prices, exchange rates and interest rates.

Commodity Price Risk

We face commodity price risk because coal is a commodity product bought and sold on the world coal markets. Prices for our coal are based on global coal prices, which tend to be highly cyclical and subject to significant fluctuations. As a commodity product, global coal prices are principally dependent on the supply and demand dynamics of coal in the world export market. Despite coal prices being cyclical, with a recent history of varying substantially, consistent with our peers, we do not engage in trading coal futures contracts and have not entered into coal pricing arrangements to hedge our exposure to fluctuations in the price of coal, but may do so in the future. See “Risk Factors — Operational Risks Relating to Our Coal Mining Business — Coal prices are cyclical and subject to significant fluctuations.”

We also face commodity price risk relating to our purchases of fuel necessary to run our operations. An increase in fuel price may cause our gross profit to decrease. On a selective basis, we enter into fuel hedging contracts for a portion of our fuel requirements. These hedging contracts are periodically entered into for the required supplies for the subsequent fiscal year. As of December 31, 2018 Adaro Indonesia had entered into 1,533,000 notional barrels of fuel hedging contracts in reference to the Gas Oil-0.05 Singapore-Platts Asia-Pacific price, which covered the period of 2018 and 2019.

Foreign Exchange Risk

All of our export sales and a significant portion of our domestic sales are priced, invoiced and paid in U.S. dollars with the remainder primarily paid in Rupiah. Our cost of sales and operating expenses are denominated and paid primarily in U.S. dollars with the remainder primarily paid in Rupiah.

Interest Rate Risk

Adaro Indonesia entered into interest rate swap agreements on a portion of its debt to receive interest at floating rates and to pay interest at fixed rates. Adaro Indonesia uses interest rate swap agreements in managing interest risk exposure and the transactions are effective cash flow hedges. The total notional amount of interest rate swaps that Adaro Indonesia entered into is \$754 million.

Off Balance Sheet Items

As of June 30, 2019, there were no significant off balance sheet items that have not been disclosed in our consolidated financial statements. See “Description of Material Indebtedness — Off Balance Sheet Loans Guaranteed by Adaro Energy.”

Recent Accounting Pronouncements

New accounting standards have been published that are mandatory for accounting periods beginning on or after January 1, 2020. The Group’s assessment of those standards and interpretations that are relevant to its financial statements is set out below:

SFAS 71 — Financial Instruments

SFAS 71 regulates three significant changes from the previous standards, i.e., classification and measurement of financial assets, impairment of financial assets and hedge accounting. The classification of debt instruments are based on the Solely Payment of Principal and Interest test and business model while the equity instruments are based on the objective of the company to hold the investment and the choice whether the company elects fair value based on other comprehensive income or not. The impairment of financial assets are based on expected credit loss and no longer require trigger event to have occurred before a credit loss is recognized. For hedge accounting, the standard eliminates the retrospective effectiveness test and quantitative effectiveness limits (80% - 125%) when considering whether the hedging is effective. The adoption of SFAS 71 is not expected to result in substantial changes to our accounting policy or significantly impact our future financial statements.

SFAS 72 — Revenue from Contracts with Customers

SFAS 72 regulates a single model for revenue recognition based on the satisfaction of performance obligations instead of risk and rewards and it provides more guidance for multiple element arrangements,

variable consideration and other matters. The adoption of SFAS 72 is not expected to result in substantial changes to our accounting policy and significantly impact our future financial statements.

SFAS 73 — Leases

SFAS 73 gives more specific guidance to identify whether a contract contains a lease or not, it eliminates the operating leases, and provides more guidance for modification of lease and variable lease payments. There are two exemptions, i.e., short-term leases and leases of low value assets. We are currently assessing the impact of the adoption of this standard on our consolidated financial statements and will apply SFAS 73 to our consolidated financial statements from reporting periods beginning January 1, 2020.

BUSINESS

Overview

We are a vertically integrated energy producer with pit-to-power businesses in the coal, power and supporting logistics sectors. Our four primary businesses are Adaro Mining, Adaro Services, Adaro Logistics and Adaro Power. These businesses complement each other and make up our pit-to-power strategy, beginning with Adaro Indonesia's coal mining business focusing on "Envirocoal," throughout the thermal coal supply chain which allows Adaro Indonesia, as well as other members of the Group, to ensure reliable supply and efficient deliveries of coal to our customers, and on to the power business which is a long-term customer for a portion of our coal. These units are supported by Adaro Land, Adaro Water, Adaro Capital and the Adaro Foundation. We believe that our integrated business model enables us to exercise greater control over the coal supply chain from pit to port to power, enhances our ability to meet production and sales goals while minimizing operating costs and provides stable earnings even in periods of fluctuating coal prices.

A brief description of our primary businesses is set forth below.

Adaro Mining: Mining is our core business, generating 92.5% of our revenue in 2018. Historically our mining operations have been focused on thermal coal, through the mining operations of Adaro Indonesia, where it mines "Envirocoal," a relatively low-pollutant thermal coal, and the adjacent Balangan Coal Companies' mining operations in South Kalimantan. We own 88.47% of Adaro Indonesia and 75% of the Balangan Coal Companies and MIP. Presently our thermal coal operations also encompass operations and concessions in South Sumatra and East Kalimantan. Adaro Indonesia is one of the largest single-location coal producers in the southern hemisphere and one of the world's lowest-cost thermal coal producers.

Starting in 2010, we have diversified our mining portfolio by adding metallurgical coal assets to our mining operations through the acquisition of mines in Indonesia in 2010 and 2016 and an interest in the Kestrel Coal Mine in Australia in 2018.

Adaro Services: Our services business focuses on mining contracting and land transportation, primarily through our wholly owned subsidiary SIS, which offers a complete range of supporting services both internally to our mining companies and externally to third parties in the mining industry.

Adaro Logistics: We believe that a critical part of our success is the coal supply reliability that we provide to our customers. We manage and coordinate the marine logistics arm of our coal supply chain with our subsidiaries, most of which are wholly owned, providing coal barging, transshipment and ship loading, channel dredging and maintenance, stevedoring, terminal services and port operations at the Taboneo offshore anchorage and our Pulau Laut onshore port. Through our integrated pit-to-port logistics supply chain, we are able to ensure reliable supply and efficient deliveries of our coal to our customers.

Adaro Power: We entered the large scale power business in 2011 with a view to diversifying into the more stable power generation industry, that is not subject to fluctuations in coal prices. This downward integration into the power business also means that there is a long-term customer for a portion our coal, subject to agreed terms which include pricing mechanisms approved by PLN, Indonesia's state-owned electric utility provider. We have operated a smaller scale power plant since 2013 through our subsidiary MSW which operates a 2x30MW coal-fired power plant in Tanjung, South Kalimantan and which, in 2018, expanded to include a 100kWp solar project at Adaro Indonesia's coal processing and barge loading facility in Kelanis, Central Kalimantan. MSW's power plants primarily power Adaro Indonesia's mining operations, with excess power sold to PLN.

Two of our joint venture projects, BPI and TPI, are expected to generate revenue from the sale of electricity to PLN under take-or-pay PPAs that have terms of 25 years from the respective projects' commercial operation date ("COD"). Payment obligations of PLN under the PPA with TPI are guaranteed by the Government of Indonesia (represented by the Ministry of Finance) in the form of a Business Viability Guarantee Letter ("BVGL"). Payment obligations of PLN under the PPA with BPI is guaranteed by the Government of Indonesia (represented by the Ministry of Finance) together with the Indonesia Infrastructure Guarantee Fund ("IIGF", or *PT Penjaminan Infrastruktur Indonesia*). The cost of coal is passed through under the PPAs. TPI and BPI's

revenue depends on meeting the operating parameters set out under the PPAs with PLN. TPI's first unit was commissioned and began commercial operations in September 2019, with the second unit estimated to be commissioned and start commercial operations at the end of 2019. The power plant being constructed by BPI is scheduled to commence operations at the end of 2020 under its PPA, although there is no guarantee that construction will be finished on time or on budget. BPI is a joint venture between Adaro Power (34%), Electric Power Development Co., Ltd. (or J-Power) (34%), and Itochu Corporation (32%). TPI is a joint venture between Adaro Power (65%) and PT EWP Indonesia (subsidiary of Korea East-West Power Co., Ltd.) (35%).

While we are in the process of diversifying our business, thermal coal mining, primarily at Adaro Indonesia, remains the most significant portion of our business and is expected to remain so for the near to medium term.

For the year ended December 31, 2018 and the six months ended June 30, 2019, we had revenues of US\$3,619.8 million and US\$1,775.2 million, respectively, and Adaro Indonesia's standalone revenue (before the elimination of intragroup transactions) was US\$3,249.1 million, and US\$1,546.4 million, respectively. For the same periods, we had Operational EBITDA of US\$1,407.7 million and US\$690.6 million, respectively and Adaro Indonesia's standalone Operational EBITDA (before the elimination of intragroup transactions) was US\$882.9 million and US\$413.2 million, respectively.

We were listed on the Indonesia Stock Exchange in 2008 with the stock symbol "ADRO." As of June 30, 2019, our market capitalization was Rp 43,501 billion (equivalent to US\$3,076.2 million).

Strengths

We are a leading energy company with the largest resources and one of the highest quality operating assets in Indonesia, which is the largest coal exporting country globally

We have the largest coal resources and third largest coal reserves base among Indonesian coal mining companies. Our total estimated thermal coal resources are 13,690.9 million tonnes and thermal coal reserves are 1,276.7 million tonnes. In 2018, we were also the second largest coal producer in Indonesia, producing 53.0 million tonnes of thermal coal and 1.0 million tonnes of metallurgical coal in 2018 with a low average strip ratio of 5.1x. Our thermal coal assets have an average mine life of 24.1 years, one of the longest in the industry. We are one of the lowest cost coal producers globally, consistently positioned in the lowest quartile of the global thermal coal cost curve.

We believe we are strategically important to the Indonesian economy. According to IHS Markit and based on our production and export figures, we are one of the largest domestic coal suppliers in Indonesia, supplying an estimated 10.7% of Indonesian coal demand in 2019 and accounting for approximately 13.0% of Indonesia's coal exports in 2018. According to IHS Markit, Indonesia has consistently been the largest thermal coal exporting country in the world. Our robust size and high quality assets have enabled us to achieve long mine life, sizeable and stable operations, economies of scale and cost optimization across our pit-to-power coal production.

We deliver the strongest financials among our peers in Indonesia, underpinned by our integrated pit-to-power strategy and low cost operating model. We are well positioned to diversify our earnings base and capture industry-wide growth

We deliver the strongest financials among Indonesian coal mining companies, as reflected in our industry leading revenue of US\$3,619.8 million, Operational EBITDA of US\$1,407.7 million and Operational EBITDA margin of 38.9% for 2018. We have a strong track record of sustaining a high Operational EBITDA margin even during periods of low thermal coal prices. Our strong financials are underpinned by our vertically integrated pit-to-power support infrastructure, which permits us greater control over costs, while maintaining strong margins.

Our solid financial performance is further enhanced by our management team's ability to prudently manage our operations, cash flow and balance sheet. We have a strong financial liquidity with cash balance of US\$927.9 million as of December 31, 2018, due to our demonstrated ability to consistently generate cash, leading to our track record of deleveraging as evidenced by our total net debt to Operational EBITDA ratio of 0.3x as of December 31, 2018.

Our strong financial performance is underpinned by the successful pit-to-power strategy, which covers the entire thermal coal supply chain, with each of our four primary businesses — Adaro Mining, Adaro Services, Adaro Logistics and Adaro Power — operating as independent profit centers to capture growth in the Indonesian coal and power industries. These businesses complement each other to enhance competitiveness, positioning us in the lowest quartile of world's coal production cost, on an FOB port basis, making our coal highly competitive in the market. In addition, we enjoy significant operational advantages at Adaro Indonesia's thermal coal mine, including a low strip ratio and thick coal seams, as well as geographical proximity to key export markets in Asia such as China and India in comparison to competitors in Australia.

Our in-house Adaro Services and Adaro Logistics businesses allow us to capture margins from synergies and retain a structurally lower cost base; while Adaro Power creates captive demand for our coal and helps to mitigate coal sales price volatility with its passthrough coal pricing. Adaro Services handles approximately 70% of Adaro Indonesia's coal land transportation volume while Adaro Logistics manages approximately 85% of Adaro Indonesia's coal barging and ship loading volume. With control over downstream operations, we have headroom in various segments of the value chain to tighten costs and therefore have consistently achieved robust operational EBITDA margins even during periods of low thermal coal prices. Beyond handling Adaro Indonesia's operations, Adaro Services and Adaro Logistics have established long-term contracts with third-parties as well. Adaro Indonesia is well-positioned to capture the growth in Southeast Asian thermal coal demand, which is expected to increase at a CAGR of 5.8% from 104 million tonnes in 2018 to 194 million tonnes in 2029, according to IHS Markit. Adaro Energy is well-placed to fully capture this industry wide-growth.

Our portfolio of high quality and well-branded coal products is positioned to capture market demand and growth opportunities

Envirocoal is a world-leading brand of coal, known for the lowest sulfur, lowest ash and extremely low nitrogen content and is the ideal product for power generation customers in an increasingly restrictive regulatory environment. Envirocoal is a world-leading brand of coal, known as for the lowest sulfur, lowest ash and extremely low nitrogen content and is the ideal product for power generation customers in an increasingly restrictive regulatory environment. These characteristics also help our power generation customers reduce costs associated with ash disposal and nitrous oxides removal and reduce their required capital expenditure for flue gas desulfurization units, which could constitute up to 30% of total capital expenditure for new coal-fired power stations. Envirocoal is trademarked in 35 countries and considered as the benchmark sub-bituminous coal brand in the export market.

Envirocoal is capturing a larger share of an overall growing demand for seaborne thermal coal, which is expected to increase from 1,011 million tonnes in 2018 to 1,066 million tonnes in 2029, according to IHS Markit. Thermal coal is expected to remain the fuel of choice for baseload power generation. In Asia Pacific, coal will continue to contribute the largest share of the power generation mix (approximately 50% to 60%) over the next decade, according to IHS Markit. Indonesia is the largest exporter of thermal coal, accounting for 41% of global seaborne thermal coal supply in 2018 and is expected to remain the dominant thermal coal supplier in 2029, according to IHS Markit. We are well-positioned to capture the growing demand for Indonesian thermal coal exports with our lowest quartile production cost and our large coal reserves and resources.

Our leading product portfolio has expanded to include metallurgical coal. We expect AMC and Kestrel to produce significant amount of hard coking coal and semi-soft coking coal to meet the growing demand for metallurgical coal, a non-substitutable component in blast furnace steel production, which is expected to increase from 347 million tonnes in 2018 to 408 million tonnes by 2029 driven by the demand for steel for continued infrastructure development, according to IHS Markit. We anticipate that metallurgical coal will provide an attractive alternative revenue stream in periods of low thermal coal prices.

Our long-term supply contracts and established relationships with diversified, high quality customers provides strong thermal coal sales visibility

Our well-established track record and reliability in delivering coal on time, and according to agreed specifications, gives our customers the confidence to enter into long-term contracts with us and has enabled us to build solid relationships with them over time. Our reliability of supply is founded on our vertical integration, which allows us greater control over the supply chain, ensuring quality, consistency and timely delivery. We

have secured an aggregate commitment of approximately 84 million tonnes from our customers from June 30, 2019 through to the end of 2022. Adaro Indonesia's top customers are highly rated, primarily state-owned enterprise power companies in investment grade rated countries such as China, South Korea, and Malaysia. Adaro Indonesia has a long standing relationship with its top ten customers, with a weighted average relationship length of more than 15 years as of June 30, 2019, with the longest relationship extending to 23 years.

With more than 60 end-user customers located across 14 countries, Adaro Indonesia's customer base is well-diversified geographically, which reduces country and region-specific macro-economic risks. Only one customer comprised more than 10% of total volume sold for the six months ended June 30, 2019.

Our experienced management team has a proven track record of operational excellence, strategic expansion and establishment of strong partnerships

Our management team is composed of experienced industry professionals with strong execution track records in energy, mining, logistics and services sectors. They have contributed to our operational excellence, performance improvements and cross-selling successes, acquisitions and integration, and have allowed us to consistently deliver positive performance in line with our financial targets. For example, following our joint venture with EMR Capital's acquisition of an 80% interest in Kestrel Coal Mine in August 2018, coal production targets at the Kestrel Coal Mine have increased by 40% year on year. Our management team also has a successful track record of vertical integration and expansion across the thermal coal supply chain, particularly the development of SIS and MBP into key mining services and logistics providers for our internal supply chain, and in the case of SIS, for third party miners.

Our management team also has a track record of initiating successful partnerships, for example, EGAT International Company Limited, a subsidiary of the Electrical Generating Authority of Thailand, a Thai state-owned enterprise responsible for power generation and transmission, in 2016 took an 11.53% ownership stake in Adaro Indonesia. Additionally, Adaro Power has collaborated on large-scale power projects with strategic partners such as Korea East West Power, J-Power and Itochu Corporation. Finally, our long-term majority shareholders provide strong support and strategic oversight.

We have a strong commitment towards environmental sustainability and community relations

We have been at the forefront of the thermal coal industry on environmental initiatives and all of our projects adhere to local and international ESG standards. Envirocoal's lowest ash, lowest sulfur and extremely low nitrogen content, helps our clients reduce emissions while generating electricity, and comply with increasingly strict regulatory and environmental standards. Our Adaro Power operations have improved, and will improve electricity generation efficiency and hence reduce environmental impact. The installation of our first solar power project by MSW at Adaro Indonesia's coal processing and barge loading facility in Kelanis, Central Kalimantan reduced CO₂ emission by 88.4 tonnes/year (equivalent to 33,000 liters/year in fuel savings) by replacing less environmentally friendly/coal-fired power generation. When it is commissioned, BPI is expected to be one of the largest power plants in Southeast Asia to use ultra-supercritical (USC) boiler technology. The use of USC boiler technology improves the efficiency of electricity generation, therefore lowering consumption of coal for a given level of energy production.

Maintaining strong relationships with local communities is also one of our key focuses, where we work to align our award winning initiatives with the government's agenda and international standards to create greater impact to the community in areas such as educational advancement, economic development, water supply improvements, health services improvements, socio-cultural preservation and environmental conservation.

Strategies

Persistently pursue operational excellence to maintain global cost leadership at the lowest quartile of the cost curve

In order for us to consistently outperform and maintain strong margins, especially in case of lower thermal coal price environments, we must maintain the credibility and reliability required by our customers, while continuously delivering incremental value, despite already being one of the world's lowest cost thermal coal

producers. We aim to improve operational efficiency by continuing to identify areas of opportunity for cross-selling and integration, adopting technological improvements in our barge fleet to drive efficiency, such as GPS / RFID tracking and other advanced monitoring of our fleet to minimize idle capacity and improve our control of barge cycle time, including via a centralized procurement and dispatch system, and continuing to enhance our hauling road to improve efficiency, reduce lag time and minimize cost. Finally, we intend to achieve further cost optimization through maintaining our collaborative relationships with our internal and third-party contractors to encourage competition between contractors and realize cost savings.

Maintain sustainable levels of coal reserves and coal production

We intend to maintain our production leadership by leveraging our existing portfolio, which includes the largest coal resources and third-largest coal reserves among Indonesian coal mining companies. Adaro Indonesia has replenished its existing reserve base through periodic exploration and controlled capital expenditure, achieving a mine life estimated at 17.9 years, one of the longest in the industry. In addition to Adaro Indonesia's coal reserves and resources, we plan to prudently identify additional coal resources and production opportunities that have synergies with our existing operations. For example, our strategic expansion into metallurgical coal since 2016 is based around AMC and Kestrel Coal Mine, two high quality assets, and was due to potential synergies (such as logistical synergies with Adaro Indonesia at AMC) and cross-selling opportunities.

Grow and diversify earnings base as we solidify our position as a leading pit-to-power player throughout the integrated coal value chain

To continue to improve our earnings stability and multi-year volume commitments, Adaro Indonesia intends to continue to secure long-term contracts with its high quality and geographically-diversified customers. At the same time, we plan to continue to increase the scale, earnings and cashflow of our other primary businesses, as we capture growth in coal services, coal logistics, metallurgical coal and power, thereby increasing their financial contributions, relative to our historical reliance on thermal coal mining.

Adaro Power creates captive demand for our coal and helps to mitigate volatility in the coal industry. Adaro Power currently has approximately 60MW of operational coal-fired power generation capacity and is in the midst of constructing, via joint ventures (TPI and BPI), 2.2GW of new coal-fired capacity accounting for approximately 6.0Mt of captive thermal coal demand annually once commercially operational. This additional power generation capacity is expected to contribute meaningfully to our financial results in the next few years.

Additionally, our strategic expansion into metallurgical coal will increase our earnings base, and further enhance our geographical and product diversification. Our diversification efforts are crucial to grow our earnings base across the coal services, coal logistics, metallurgical coal and coal-fired power industries. We expect this diversification to mitigate the challenges in case of a lower thermal coal price environment.

Maintain prudent financial policy and disciplined cashflow management

We have had a strong focus on maintaining conservative leverage and strong balance sheet and liquidity, and intend to maintain this focus in the future through implementing prudent financial policies and disciplined cashflow management. We plan to continue to diversify our funding sources either through the capital markets, or through our relationships with over 20 domestic and international lenders.

Capitalize on the increasing global focus on environmental preservation with well-established products and strong brand recognition

IHS Markit anticipates increasing demand for sub-bituminous coal in the region we serve, driven by power generation needs in India, the Philippines, Bangladesh, Vietnam and other Southeast Asian countries, where demand for coal-fired power is expected to grow. As these markets develop increasingly stringent environmental regulations, while still relying on coal-fired power generation, we will continue to educate customers about the benefits of Envirocoal as a world-leading thermal coal that is the lowest in sulfur, the lowest in ash, with highest energy output per sulfur and ash content in comparison to its competitors, and extremely low in nitrogen, which allows customers to both comply with their environmental obligations and reduce required capital and operating expenditure.

Deepen commitment to the community while maintaining high standards of safety and compliance

In addition to our primary businesses, we intend to continue to strengthen our commitment to the community and support social initiatives in Indonesia through our other businesses, which we expect will also expand our revenue base. These other business areas are: (i) Adaro Land, our strategic land asset and infrastructure company, which contributes to the growth and operational sustainability of our businesses, before and after coal extraction; (ii) Adaro Water, which works with state entities to improve the well-being of Indonesians by making clean water more available; and (iii) the Adaro Foundation, which supports the communities that give us social license in economic independence, educational enhancement, health improvements, socio-cultural promotion and environmental conservation. Finally, we are committed to continuing our award winning QHSE performance, which consistently surpasses applicable regulatory guidelines, to promote sustainable growth.

Historical Milestones

- **1982.** Adaro Indonesia signs the Coal Cooperation Agreement valid for 30 years after the start of coal production.
- **1991.** Adaro Indonesia trademarks the name Envirocoal.
- **1992.** Adaro Indonesia starts commercial production of coal from Paringin pit.
- **2008.** PT Adaro Energy Tbk is listed on the Indonesia Stock Exchange.
- **2010.** Adaro Energy acquired 25% of AMC located in Central and East Kalimantan, partnering in a joint venture with BHP Billiton.
- **2011.** Adaro Energy establishes a presence in South Sumatra by acquiring MIP.
- **2011.** BPI signs a Power Purchase Agreement with PT PLN (Persero) for a 2x1,000 MW power project in Central Java (Adaro Power owns 34% of BPI).
- **2013.** Adaro Energy acquired the Balangan Coal Companies near Adaro Indonesia's operations.
- **2013.** MSW, a 2x30 MW coal-fired power plant in Tanjung, South Kalimantan, commences commercial operations.
- **2014.** TPI signs a PPA with PT PLN (Persero) for 2x100 MW coal-fired IPP in South Kalimantan (Adaro Power owns 65% of TPI).
- **2015.** President of Indonesia Joko Widodo in August inaugurates the construction of the Central Java power project, a 2x1,000 MW coal-fired power plant owned by BPI.
- **2016.** Adaro Energy fully acquired AMC.
- **2016.** BPI achieves financial close for its 2x1,000 MW power project in Central Java.
- **2017.** TPI reaches financial close for its 2x100 MW coal-fired power plant project in South Kalimantan.
- **2018.** The acquisition of a 34.6% interest in Kestrel Coal Mine in Australia marks Adaro Energy's first overseas venture and further diversifies its coal product portfolio to include premium hard coking coal.

Adaro Thermal Coal Mining Concessions

Historically our mining operations have been focused on thermal coal through Adaro Indonesia's mining operations in South Kalimantan, where Adaro Indonesia has produced a relatively low-pollutant thermal coal that

it sells under the “Envirocoal” brand since 1992. While Adaro Indonesia remains our most important mining operation, we have diversified our mining activities by acquiring additional thermal coal assets in Indonesia. The following map sets forth the location of our key mining areas.

Operating Thermal Coal Mines



Adaro Indonesia — Envirocoal

We are engaged in surface open cut mining of coal from Adaro Indonesia’s concession area in South Kalimantan, Indonesia. Adaro Indonesia holds its coal mining rights until 2022 (with the right to extend, subject to some regulatory requirements, see “Regulatory Risk Factors Relating to Our Coal Mining Business”) pursuant to a first generation Coal Cooperation Agreement with the Indonesian government, with a concession area of approximately 31,379.80 hectares based on MEMR Decree No. 250.K/30/DJB/2017 dated April 18, 2017. Adaro Indonesia produces sub-bituminous coal of medium calorific value between 4,000 kcal/kg and 5,000 kcal/kg gross as received (“GAR”) from Adaro Indonesia’s coal mines. Due to its ultra-low sulfur and ash characteristics, Adaro Indonesia has trademarked this product as “Envirocoal.” Envirocoal has been widely used by power stations and other industries across Europe, America and Asia since 1992 due to its versatility, particularly in environmentally-restricted operations, given its low content of ash, sulfur and nitrogen. The ultra-low sulfur and ash content also makes Envirocoal an effective component for blending with higher ash and sulfur coal to reduce the cost associated with ash disposal and capital expenditure for sulfur and nitrous oxides reducing units.

In 2018, Adaro Indonesia produced a total of 48.3 million tonnes of coal. Total overburden removal was 246.5 Mbcm, resulting in an average strip ratio of 5.1x. All coal deposits within Adaro Indonesia’s concession area contain sub-bituminous Envirocoal, which is low-ash and low-sulfur. Sub-bituminous coal, as compared to bituminous coal, has lower energy levels on combustion and higher levels of moisture. Envirocoal contains low levels of ash, sulfur and other trace minerals. Sub-bituminous coal is suitable for electricity generation, including power generation for use in industrial markets such as the cement and pulp and paper industries.

Envirocoal is easily stockpiled and requires no special handling equipment. Envirocoal also does not need to be ground as finely as other types of coal to achieve maximum combustion as it offers high surface area and high volatility, allowing easy ignition and stable combustion.

We believe that Envirocoal offers our customers a low-cost fuel alternative. Many coal consumers have been required to install flue gas desulfurization equipment, use selective catalytic reduction systems designed to remove nitrous oxides, or reduce the sulfur content in the blend of coals used in their coal burning facilities. Envirocoal, with its low sulfur and nitrogen content, allows consumers to meet regulated standards by burning Envirocoal directly or blending Envirocoal with other coals, without the significant capital expenditure that would be otherwise required to upgrade their existing facilities.

By blending Envirocoal with higher ash producing coals, the costs of ash disposal can also be reduced. Low ash levels found in Envirocoal also help to reduce ash buildup in coal burning boilers, and thereby improve thermal efficiency and reduce maintenance costs for our customers.

Balangan Coal Companies

In order to supplement Adaro Indonesia's thermal coal mining operations, we acquired 75% of three adjacent mining operations along the same geological seam. The coal from these concessions has a calorific value between 4,200 kcal/kg and 4,400 kcal/kg (GAR) and has similar coal characteristics to Envirocoal. These mines cover an aggregate area of 7,500 hectares. SCM has started production in 2014 and LSA started production in 2016. The Balangan Coal Companies currently sell their entire coal production to Adaro Indonesia where it is blended with Adaro Indonesia's production and sold to Adaro Indonesia's customers. In 2018, these mines produced a total of 4.7 million tonnes of coal. Total overburden removal was 18.3 Mbcm, resulting in an average strip ratio of 3.9x. The Balangan Coal Companies are operated through IUP licenses, which will expire in 2029 for PCS and SCM and 2034 for LSA. These IUP licences may be extended twice (each time for a 10 year period).

PT Mustika Indah Permai ("MIP")

We diversified the geographical footprint of our thermal coal mining operations into South Sumatra in 2011 through the acquisition of MIP. MIP holds an IUP for a 2,000 hectare coal concession that contains medium energy and ultra-low sulfur and ash sub-bituminous coal suited for power generation. The coal sales of MIP started in April 2019 and its customer profile is anticipated to be similar to Adaro Indonesia's. MIP is operated through IUP license, which will expire in 2030 (and may be extended twice).

Thermal Coal Reserves, Resources and Quality

We prepare our coal resources and reserves information according to the 2012 JORC Code, with reference to the Australian Coal Guidelines 2014. Our thermal coal reserves primarily consist of reserves at Adaro Indonesia and its adjacent Balangan Coal Companies operating thermal coal mines located in South Kalimantan and MIP located in South Sumatra. The following tables summarize our estimated in-situ thermal coal reserves and resources. RPM has reviewed the reserve and resource estimates for Adaro Indonesia's assets. See Appendix A to this Offering Memorandum for the RPM Report.

Operating company	Location	Quantity				Quality				
		Reserve (Mt) Total Gross	Proved (Mt)	Probable (Mt)	Net (attributable to AE)	Total Moisture % (GAR)	Ash % (GAR)	Volatile Matter % (GAR)	Total Sulfur % (GAR)	CV Kcal/kg (GAR)
PT Adaro Indonesia ⁽¹⁾	Adaro Indonesia Coal reserves as of December 31, 2017 (MT)⁽¹⁾									
	South Tutupan	137.9	134	3.9	122	27.4	2.1	36.1	0.1	4,991
	North Tutupan	460.3	413.2	47.1	407.4	27.2	2.0	36.5	0.08	4,789
	North Paringin	24.1	23.3	0.8	21.3	26.25	2.9	35.2	0.2	5,040
	South Paringin	—	—	—	—	—	—	—	—	—
	Wara I	292.7	273.9	18.8	259	39.3	2.8	30.5	0.2	3,983
	Wara II	—	—	—	—	—	—	—	—	—
	Total PT Adaro Indonesia as of December 31, 2017	915	844.4	70.6	809.7	—	—	—	—	—
	Adaro Indonesia Coal reserves as of December 31, 2017, after taking into account 2018 production (MT)⁽²⁾									
	South Tutupan	121.2	117.3	3.9	107.3	27.44	2.06	36.05	0.11	4,991
	North Tutupan	441.4	394.3	47.1	390.7	27.2	1.99	36.47	0.08	4,789
	North Paringin	18.1	17.3	0.8	16.0	26.25	2.88	35.24	0.19	5,040
	South Paringin	—	—	—	—	—	—	—	—	—
	Wara I	286.0	267.2	18.8	253.1	39.27	2.77	30.5	0.21	3,983
	Wara II	—	—	—	—	—	—	—	—	—
	Total PT Adaro Indonesia as of December 31, 2017, after taking into account 2018 production	866.7	796.1	70.6	766.9	—	—	—	—	—
Other Thermal Coal reserves as of December 31, 2018 (MT)⁽³⁾										
Balangan Coal Companies:⁽⁴⁾										
PT Semesta Centramas	Balangan	41	38	2	30	31.6	2.1	34.1	0.08	4,395
PT Paramitha Cipta Sarana		28	20	8	21	31.1	3.7	33.7	0.07	4,341
PT Laskar Semesta Alam		87	72	16	66	31.6	1.7	35.2	0.08	4,571
PT Mustika Indah Permai ⁽⁴⁾	Lahat	254	246	8	190.5	34.1	5.7	31.1	0.4	4,292
Total others		410	376	34	307.5	—	—	—	—	—
Total (Adaro Indonesia as of December 31, 2017, after taking into account 2018 production + Others as of December 31, 2018)⁽⁵⁾										
		1,276.7	1,172.1	104.6	1,074.4	—	—	—	—	—

- (1) Adaro Indonesia's reserves and resources presented in this Offering Memorandum are based on Adaro Indonesia's December 31, 2017 coal reserves and resources estimate by Adaro Indonesia's Geology and Mining Department, which have been extracted from Adaro Indonesia's 2017 JORC report. RPMGlobal Mining Consultants, an independent mining consultant, has reviewed these reserve and resource estimates for Adaro Indonesia's assets and the RPM Report is attached as Appendix A to this Offering Memorandum. See "Independent Mining Expert." The CP Reserves is Rifan Ahda MAusIMM/CPI, of PT Adaro Jasabara Indonesia.
- (2) Adaro Indonesia's coal reserves as of December 31, 2017, after taking into account 2018 production are based on Adaro Indonesia's coal reserves as of December 31, 2017 (as described in footnote 1), after taking into account 2018 production.

- (3) Coal Reserves for Balangan Coal's PCS, SCM and LSA were first reported in 2016. SCM and LSA Coal Reserves were updated in 2018 due to changes in the geological model from new drilling and update of the Life of Mine pit design applying revised coal price assumption and production cost parameters.
- (4) For a list of competent persons for reserves and resources other than Adaro Indonesia's, see "Coal Reserve and Resource Estimates."
- (5) Certain of our metallurgical coal operations' reserves and resources also contain thermal coal. See "— Other Coal Reserves and Resources."

Operating company	Location	Quantity					Quality				
		Total Resource (MT)	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Net (attributable to AE)	Total Moisture % (GAR)	Ash % (GAR)	Volatile Matter % (GAR)	Total Sulfur % (GAR)	CV Kcal/kg (GAR)
PT Adaro Indonesia ⁽²⁾	Adaro Indonesia Coal resources as of December 31, 2017 (MT)⁽¹⁾										
	South Tutupan	1,183	713	207	263	1,047	28.5	2.7	35.1	0.13	4,862
	North Tutupan	1,708	886	387	435	1,512	27.1	2.2	36.6	0.10	4,838
	North Paringin	476	298	86	92	421	28.6	3.7	33.5	0.25	4,758
	South Paringin	104	21	39	44	92	30.2	3.3	32.8	0.26	4,668
	Wara I	1370	806	270	294	1,212	38.8	3.5	30.4	0.28	3,953
	Wara II	397	355	26	16	351	43.3	3	29.1	0.22	3,666
	Total PT Adaro Indonesia as of December 31, 2017	5,238	3,079	1,014	1,144	4,635	—	—	—	—	—
	Adaro Indonesia Coal resources as of December 31, 2017, after taking into account 2018 production (MT)⁽²⁾										
	South Tutupan	1,164	694	207	263	1,030	28.5	2.7	35.1	0.13	4,862
	North Tutupan	1,687	865	387	435	1,493	27.1	2.2	36.6	0.10	4,838
	North Paringin	469	291	86	92	415	28.6	3.7	33.5	0.25	4,758
	South Paringin	104	21	39	44	92	30.2	3.3	32.8	0.26	4,668
	Wara I	1,363	799	270	294	1,206	38.8	3.5	30.4	0.28	3,953
	Wara II	397	355	26	16	351	43.3	3	29.1	0.22	3,666
	Total PT Adaro Indonesia as of December 31, 2017, after taking into account 2018 production	5,185	3,026	1,014	1,144	4,587	—	—	—	—	—
Other Coal resources as of December 31, 2018 (MT)⁽³⁾											
Balangan Coal⁽⁴⁾ Companies:											
PT Semesta Centramas	Balangan	67.6	60.2	6	1	50.7	32.7	2	34.3	0.08	4,452
PT Paramitha Cipta Sarana		51	36	14	1	38	31	3.5	33.9	0.08	4,359
PT Laskar Semesta Alam		141.8	92.9	42	7	106.3	30.1	2	34.5	0.08	4,478
PT Mustika Indah Permai ⁽⁴⁾	Lahat	287.5	277.7	9.6	0.2	216	34.1	5.1	31.2	0.46	4,342
Other Concessions	Various	7,958	3,866	3,204	885	7,161	46.9	3.1	25.9	0.1	3,354
Total Others		8,505.9	4,332.8	3,275.6	894.2	7,572	—	—	—	—	—
Total (Adaro Indonesia as of December 31, 2017, after taking into account 2018 production + Others as of December 31, 2018)⁽⁵⁾		13,690.9	7,358.8	4,289.6	2,038.2	12,159	—	—	—	—	—

- (1) Adaro Indonesia's reserves and resources presented in this Offering Memorandum are based on Adaro Indonesia's December 31, 2017 coal reserves and resources estimate by Adaro Indonesia's Geology and Mining Department, which have been extracted from Adaro Indonesia's 2017 JORC report. RPMGlobal Mining Consultants, an independent mining consultant, has reviewed these reserve and resource estimates for Adaro Indonesia's assets and the RPM Report is attached as Appendix A to this Offering Memorandum. See "Independent Mining Expert." The CP Resources is Joseph Crisostomo MAusIMM, of PT Adaro Jasabara Indonesia.
- (2) Adaro Indonesia's coal resources as of December 31, 2017, after taking into account 2018 production are based on Adaro Indonesia's coal resources as of December 31, 2017 (as described in footnote 1), after taking into account 2018 production.

- (3) Coal Resources for Balangan Coal's PCS, SCM and LSA were first reported in 2016. SCM and LSA Coal Resources were updated in 2018 due to changes in the geological model from new drilling and update of the Life of Mine pit design applying revised coal price assumption and production cost parameters. Coal Resources for MIP were estimated in November 2013.
- (4) For a list of competent persons for reserves and resources other than Adaro Indonesia's, see "Coal Reserve—Resource Estimates."
- (5) Certain of our metallurgical coal operations' reserves and resources also contain thermal coal. See "— Other Coal Reserves and Resources."

Due to rounding, numbers presented may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason

Coal Production

The following table sets forth the production volumes, sales volumes, overburden removal and average strip ratio for the periods indicated on a consolidated basis and on an Adaro Indonesia standalone basis:

	For the				
	Year Ended December 31,			Six Months Ended June 30,	
	2016	2017	2018	2018	2019
Adaro Energy (Group)⁽¹⁾					
Coal production (MT)	52.6	51.8	54.0	24.1	28.5
Coal sales (MT)	54.1	51.8	54.4	23.8	28.8
Average blended selling price (US\$ per tonne) ⁽²⁾	43.4	58.7	61.5	62.5	56.8
Overburden removal (Mbcm)	234.1	238.7	273.5	123.0	127.5
Average strip ratio (x)	4.5	4.6	5.1	5.1	4.5
Adaro Indonesia					
Coal production (MT)	50.8	47.7	48.3	21.3	25.5
Coal sales to third parties and related parties (MT)	53.1	50.7	53.9	23.5	28.0
Average selling price (US\$ per tonne) ⁽³⁾	43.0	57.7	60.3	61.0	55.2
Overburden removal (Mbcm)	229.3	225.3	246.5	112.8	114.7
Average strip ratio (x)	4.5	4.7	5.1	5.3	4.5

(1) Group level figures also includes all of the Group's coal production.

(2) We calculate average blended selling price per tonne by dividing total consolidated revenue of the coal segment by tonnes of total consolidated coal sales for the years/periods presented, which includes sales from all of our operating mines on a consolidated basis.

(3) We calculate average selling price per tonne by dividing revenue of the coal mining by tonnes of coal sold for the periods presented.

Mine Operations

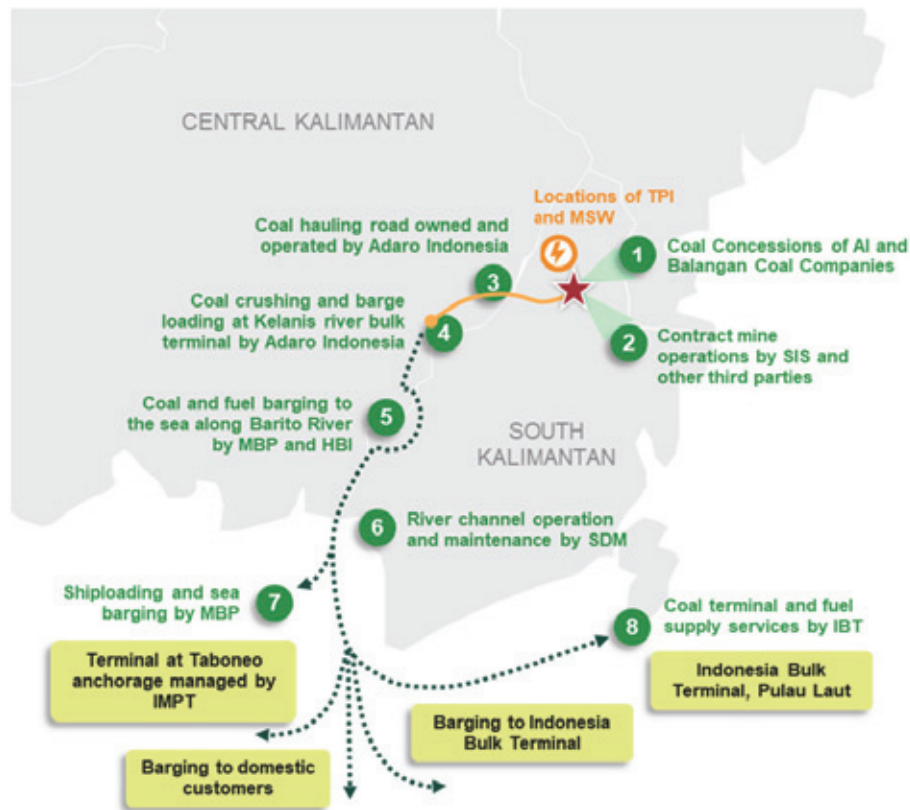
Adaro Indonesia and the Balangan Coal Companies

Adaro Indonesia's mining concession area and the Balangan Coal Companies' concessions are all located adjacent to each other in South Kalimantan. The closest regional center is the town of Tanjung, which is immediately west of Adaro Indonesia's concession area. Adaro Indonesia's operations are located approximately 230 km north of Banjarmasin, the provincial capital of South Kalimantan. The sealed Trans-Kalimantan Highway connects Adaro Indonesia's operation with Banjarmasin. Banjarmasin is served by domestic airlines and limited international flights. Adaro Indonesia also uses an airfield adjacent to its mining operations.

Access within Adaro Indonesia's concession area is by way of sealed and unsealed roads. In-pit trucking of mined coal is conducted via roads and ramps. Adaro Indonesia is supported by mining services provided by SIS and the logistics and services infrastructure provided by Adaro Logistics and other third party contractors.

We developed significant infrastructure within Adaro Indonesia's concession area and between the concession and the Kelanis coal handling and barge loading facility. Infrastructure developed includes the haul road, bridges, overpasses, site buildings between the concession area and Kelanis and the Kelanis facility itself. There are seven hoppers and six conveyor lines in Kelanis. The conveyor belts are equipped with several features to enhance quality control and minimize the risk of contamination, self-combustion and oversize coal.

Adaro Indonesia also remains responsible, under the terms of the Coal Cooperation Agreement, for the maintenance of all property, plant and equipment used in its operations. The following diagram illustrates our pit-to-power operations in South and Central Kalimantan.



Contract Mining and Mining Services

Adaro Indonesia employs three mining contractors for its operations: PAMA, BUMA and our subsidiary SIS. See “— Adaro Services — PT Saptaindra Sejati (“SIS”).” Having multiple contractors is a strategy that Adaro Indonesia has employed for more than 20 years in order to create a level playing field and encourage efficient operations. Adaro Indonesia’s contractors assume operational responsibility for mining and transporting operations and provide their own mining equipment, consumable materials and spare parts in accordance with their contracts with Adaro Indonesia.

Contractor services are subject to multi-year contracts to undertake overburden removal and transportation and coal transportation. These contracts have fixed prices for each tonne of coal transported and each bcm of overburden stripping based on vertical and horizontal hauling distances, although Adaro Indonesia renegotiates these fixed prices from time to time within the life of the contract. Adaro Indonesia’s current contract with SIS runs through to September 2042, while the contract with BUMA expires on September 30, 2022, and the contract with PAMA expires on July 31, 2021.

Coal is mined using open-pit mining methods with primary overburden stripping and coal mining being handled by hydraulic excavators and trucks. The typical open-pit mining process begins with land clearing. Top soil is then stripped from the area to be mined. A combination of drilling and blasting is then used to remove overburden. Approximately 90% of overburden stripping is assisted by explosives, with top soil being set aside for mine rehabilitation. Coal is loaded by excavators into rear-dump haul trucks and deposited in coal run-of-mine stockpile areas adjacent to the pits. Mining operations are scheduled in two 12 hour shifts, 7 days a week, 359 days a year.

Our mine operations can be impacted by adverse weather conditions, particularly during the monsoon season. Our mine planning function anticipates and adjusts production levels to take into account such weather related delays.

Coal Hauling and Processing and Port

After the coal is mined, it is hauled by double trailer trucks approximately 80 km to our dedicated coal processing, stock-piling and barge loading facility at Kelanis, located on the Barito River. More than 300 double-trailer trucks with a capacity of 130 tonnes per truck navigate this hauling road. Each truck is installed with GPS and tracking systems to detect delays along the hauling road and respond accordingly. Between the mine and Kelanis Port, the trucks are sequenced for product assembly, using RFID tracking of the quality of coal they are carrying so that the shipped coal meets our customers' quality requirements.

At Kelanis, trucks are directed to the hoppers assigned based on the quality of the coal carried. There are seven hoppers and six conveyor lines in Kelanis, with an annual capacity of 62 million tonnes in normal operating conditions. Kelanis also serves as a quality control checkpoint for ensuring that the coal loaded to barges is free from contamination. Adaro has installed metal detectors and magnets along the conveyor to conduct periodic checks on the product. Due to its deep water, Kelanis can be used for berthing by barges with capacity ranging from 8,000 dwt to 18,000 dwt.

Coal Barging, Transshipment and Channel Dredging

At Kelanis, coal is loaded via high speed conveyors onto large barges and towed down approximately 115 nautical miles on the Barito River by tugboats. Most of this transportation activity is performed by our subsidiary, MBP, with the remaining volume performed by third party barge and tugboat operators. Upon reaching the Barito river mouth, the barges are towed across a 15 km channel that is maintained by SDM. SDM continuously maintains the channel depth to ensure that all vessels including tugs and barges can pass through the channel safely on a 24/7 basis, allowing MBP to reduce the total cycle time and fuel consumption as well as increase the barging capacity. This has resulted in cost reduction on the barging freight and increased our security of supply.

As barges depart from the channel they enter into the Taboneo offshore anchorage operated by IMPT, where barges are transshipped onto bulk vessels for the export market by stevedoring company, PBMM. All domestic tonnage is transported by barge directly to the relevant domestic destination. As of June 2019, approximately 97% of our export coal was loaded at Taboneo. The remaining export tonnage was shipped through IBT, our shore-based public terminal located on Pulau Laut. All domestic tonnage is transported by barge directly to the relevant domestic destination.

Other Mining Assets

In order to diversify our coal mining operations, we entered the metallurgical coal market starting in 2010 with the acquisition of a 25% minority interest in AMC. We increased our holdings in AMC to 100% in 2016. In 2018, we added a significant metallurgical coal asset to our portfolio through the acquisition of 34.6% effective ownership of the Kestrel Coal Mine.

We believe that our diversification into metallurgical coal will help us to capitalize on the construction and manufacturing needs of emerging markets in Asia. As a result, our product portfolio now includes sub-bituminous thermal coal for power generation, semi-soft coking coal and a premium hard coking coal product, which we believe is an essential, non-substitutable component used in blast furnace iron and steel-making.

Adaro MetCoal Companies

AMC are located in the Upper Kutai Basin, which contains one of the largest undeveloped metallurgical coal deposits. As of December 31, 2018, the metallurgical coal resources within these areas total 1.35 billion tonnes with reserves of 54.4 million tonnes. We are currently in the exploration phases in most of these

concessions and production is currently limited to one concession producing semi-soft coking coal. We expect another concession to begin producing hard coking coal and other types of metallurgical coal in early 2020.

To solve the challenging barging of coal from AMC through upper Barito river, we have signed logistic and infrastructure agreements with PT Trada Alam Minera Tbk (“TRAM”) in developing mining logistics and infrastructure located in Central and East Kalimantan to enable our coal transportation through the Mahakam river. Considering the all-year bargeability of the Mahakam river, we anticipate a significantly more reliable supply chain, thus executing our strategy to ramp up production at AMC. Such agreements with TRAM will also include a conditional transfer of PT Pari Coal (an AMC company)’s majority shares from Adaro to TRAM or its nominated party.

Kestrel

On August 1, 2018, we, together with EMR Capital Ltd (“EMR”), a specialist mining private equity manager, completed the acquisition of an 80% interest in the Kestrel Coal Mine in Australia (the “Kestrel Acquisition”). Following the Kestrel Acquisition, Kestrel Coal Mine is owned by Kestrel Coal Resources Pty Ltd (80%) and Mitsui Coal Australia (20%). Kestrel Coal Resources Pty Ltd is indirectly owned by Kestrel. EMR and Adaro Energy will jointly manage and operate the Kestrel Coal Mine. The Kestrel Acquisition was funded through a combination of non-recourse acquisition financing and equity contributions from ourselves and EMR. Following the closing of the Kestrel Acquisition, we have no further equity commitments for this project.

Kestrel Coal Mine produces hard coking coal, qualities we believe are favored by premium customers in the seaborne market. Kestrel Coal Mine sells the majority of its coal on a contracted basis to steel makers in the Asian market. Overall, Kestrel Coal Mine has marketable coal reserves of 150.7 million tonnes and resources of 430.7 million tonnes (as of December 31, 2018).

Under our shareholders’ agreement with EMR, we will jointly make decisions with respect to the Kestrel Coal Mine. In 2018, Kestrel Coal Mine recorded saleable coal production of 4.8 million tonnes, and total coal sales of 4.8 million tonnes.

Other Coal Reserves and Resources

We prepare our coal resources and reserves information according to 2012 JORC Code, with reference to the Australian Coal Guidelines 2014. Our other coal reserves and resources primarily consist of AMC coking coal mines in Central Kalimantan and our interest in Kestrel Coal Mine located in Queensland, Australia. The following table summarizes certain information relating to our other coal reserves and resources as of December 31, 2018:

Operating Company	Location ⁽¹⁾	Coal reserves as of December 31, 2018											
		Quantity						Quality ⁽³⁾					
		Mining method ⁽²⁾		Total Proven & Probable (Mt)	Proven (Mt)	Probable (Mt)	Adaro ownership equity (%)	Adaro attributable total Proven & Probable (Mt)	Moisture %	Ash %	Volatile Matter %	Total Sulphur %	Calorific Value Kcal/kg (arb)
Adaro MetCoal	PT Lahai Coal Haju (metallurgical)	OC		2.6	2.60	—	100	2.6	9	6.6	33.6	0.90	NA
	PT Lahai Coal Haju (thermal)	OC		0.25	0.25	—		0.25	9	5.5	31.9	0.70	6,052
	PT Maruwai Coal — Lampunut (metallurgical) ⁽⁴⁾	OC	ROM	67.5	49.5	18.1		51.5	4.5	20.4-23.3	23.8-24.4	0.58-0.68	NA
			Yield	76%	77%	73%			—	—	—	—	—
		Marketable	51.5	38.2	13.3			9.0	4.3-4.4	29.3-29.5	0.47-0.58	NA	
	PT Maruwai Coal — Lampunut (thermal)	OC		0.4	—	0.4	0.4	4.5	17.9	24.9	0.80	6,926	
Total AMC				54.8	41.05	13.70		54.8	—	—	—	—	
Kestrel Coal Mine Central Queensland, Australia ⁽³⁾			UG	ROM	189.4	19.0	170.4	34.6	52.14	NA	NA	NA	NA
				Yield	80%	79%	80%						
				Marketable	150.7	15.1	135.6						
Total Other Coal Reserves				205	56	149		106.94		—	—	—	

(1) For a list of competent persons, see “Coal Reserve and Resource Estimates.”

(2) OC means Open Cut, UG means Underground.

(3) Coal qualities are for a potential product on an air-dried basis.

Due to rounding, numbers presented may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason.

Operating Company	Location ⁽¹⁾	Coal resources as of December 31, 2018											
		Mining method ⁽²⁾	Quantity					Quality ⁽³⁾					
			Total Measured, Indicated & Inferred (Mt)	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Adaro ownership equity (%)	Adaro attributable total Measured, Indicated & Inferred (Mt)	Ash %	Volatile Matter %	Total Sulphur %	Yield % ⁽⁴⁾	
Adaro MetCoal	PT Juloi Coal Bumbun (metallurgical/thermal)	OC	200	28	79	92	100	200	3.4	17.5	0.75	81.4	
	PT Juloi Coal Juloi Northwest (metallurgical/thermal)	OC	639	—	62	577		639	4.1	26.6	0.52	84.2	
	PT Kalteng Coal Luon (metallurgical/thermal) ⁽⁵⁾	OC	150	23	27	100		150	3.6	17.5	0.66	78.5	
	PT Kalteng Coal Luon (metallurgical underground) ⁽⁵⁾	UG	109	14	27	68		109	3.9	18.5	0.76	73.5	
	PT Lahai Coal Haju (metallurgical/thermal)	OC	12.4	11.39	0.81	0.17		12.4	5.1	39.2	1.08	—	
	PT Maruwai Coal — Lampunut (metallurgical)	OC	100.1	94.3	5.8	0.1		100	4.1	28.3	0.52	84.9	
	PT Maruwai Coal — Lampunut (thermal)	OC	9.5	—	—	9.5		9.5	—	—	—	—	
	PT Ratah Coal	OC	No resources estimated in 2018					NA	No resources estimated in 2018				
	PT Sumber Barito Coal (metallurgical/thermal) ⁽⁵⁾	OC	55.5	8.8	15.3	31.4		55.5	3.9	17.8	0.80	75.5	
	PT Sumber Barito Coal (metallurgical underground) ⁽⁵⁾	UG	75.1	4.9	19.2	51.0		75	3.9	18.1	0.88	73.8	
Total AMC			1,351	185.2	236.6	928.8		1,351	—	—	—	—	
Kestrel Coal Mine Central Queensland, Australia ⁽⁶⁾		UG	430.7	18.8	321.9	90	34.6	149.02	6.6	34.0	0.61	75.6	
Total Other Coal Resources		OC	1,781	204	558	1,019		1,500.02	—	—	—	—	

(1) For a list of competent persons, see “Coal Reserve and Resource Estimates.”

(2) OC means Open Cut, UG means Underground.

(3) Coal qualities are for a potential product on an air-dried basis. Adaro MetCoal resource tonnages reported in-situ and subject to % Yield except PT Lahai Coal Haju.

(4) Theoretical Yield from bore core analysis.

(5) PT Kalteng Coal and PT Sumber Barito Coal metallurgical Coal Resources are designated as having potential to host underground mining.

(6) Kestrel Coal Mine coal qualities are for Primary Coking Product with a target 6.5% Ash for the GC (German Creek) Seam. Kestrel resource tonnage reported in-situ and subject to % Yield.

Due to rounding, numbers presented may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason.

Exploration and Development

The Group has 19 coal concessions throughout Indonesia, in addition to Adaro Indonesia. The Balangan Coal Companies hold three concessions (LSA, PCS and SCM) of which SCM and LSA are operational. In Central and East Kalimantan there is a group of seven concessions of which one is operational (PT Lahai Coal) and one is under development (PT Maruwai Coal). The majority of the concessions in Central Kalimantan contain mid-vol coking coal and collectively are referred to as AMC. The Lampunut mine is expected to commence operations in early 2020, producing a tier-1 washed low ash coking coal. To the west of the Upper Maruwai coal concession there are three prospective concessions which currently being explored for mid-vol coking coal. In addition, there is also another group of seven concessions in East Kalimantan.

We have two coal concessions located in South Sumatra. MIP, which is located in Lahat, South Sumatra, contains reserves of sub-bituminous coal, which is currently being developed, is located adjacent to the town of Lahat and has its own bridge connecting it to the Trans Sumatran highway and regional railway.

Our Licenses

In Indonesia, general mining activities must be carried out under a valid agreement, license or permit. See “Regulations — Coal Mining Regulations” for a discussion of the regulatory framework relating to our licenses.

Adaro Indonesia Coal Cooperation Agreement

Adaro Indonesia was established in 1982 by a Spanish government geological exploration company Empresa Nacional Adaro De Investigaciones Mineras, S.A. In November 1982, Adaro Indonesia entered into a

30-year Coal Cooperation Agreement (with extension rights) with Perusahaan Negara Tambang Batubara, a state-owned company that had the authority to grant coal mining concessions. In 1984, the name and status of “Perusahaan Negara Tambang Batubara” were changed to “Perusahaan Umum (PERUM) Tambang Batubara.” The Perusahaan Umum (PERUM) Tambang Batubara was then dissolved in 1990 and all of its rights and obligations relating to cooperation agreements were assigned to PT Tambang Batubara Bukit Asam (Persero) (“PTBA”). Effective from July 1, 1997, the Coal Cooperation Agreement was further amended to transfer PTBA rights and obligations to the Government as represented by the Ministry of Mines and Energy (the predecessor of the Ministry of Energy and Mineral Resources). Effective from January 17, 2018, the Coal Cooperation Agreement was amended for the second time. The amendments are, among others, in relation to the size of the mining area, taxes and other company’s financial obligation, domestic market obligation, and the provision regarding the extension of the Coal Cooperation Agreement.

Under the Coal Cooperation Agreement, Adaro Indonesia is obligated to explore and exploit coal resources in its concession area in South Kalimantan, Indonesia. The Coal Cooperation Agreement has a term of 30 years from October 1992 and expires in October 2022 and may be extended pursuant to the Coal Cooperation Agreement and the prevailing regulations. See “Regulations — Coal Mining Regulations.”

The Ministry of Energy and Mineral Resources may terminate the Coal Cooperation Agreement if Adaro Indonesia conducts major breach of the Coal Cooperation Agreement and fails to remedy the default within specified time periods.

Under the original Coal Cooperation Agreement, Adaro Indonesia’s concession area covered approximately 148,148 hectares. Under the terms of the Coal Cooperation Agreement, it relinquished over 75% of the original area, after having identified the most economically viable mining areas for exploitation. Further, after Adaro Indonesia submitted the mining activity plan for the coal mining area as mandated under Article 171 of the new mining law and such mining activities plan has been approved by MEMR under the MEMR Ministerial Decree No.250 K/30/DJB/2017 dated April 18, 2017, Adaro Indonesia’s concession area has been adjusted to approximately 31,379.8 hectares.

The Coal Cooperation Agreement provides that ownership of the coal deposits remains with the Republic of Indonesia until it is delivered to customers. The Coal Cooperation Agreement also provides that the Ministry of Energy and Mineral Resources is entitled to receive royalties totaling 13.5%, of Adaro Indonesia’s total coal production in cash over the price of Free on Board of Kelanis or at sale point in the final loading facility owned by Adaro Indonesia. Adaro Indonesia is also required to prioritize domestic coal obligations in accordance with the prevailing regulations.

Environmental License

Adaro Indonesia’s environmental license covers coal mining activities. Adaro Indonesia has obtained environmental license covering production in: (i) Tabalong District and Balangan District, South Kalimantan, and (ii) East Barito District and South Barito District, Central Kalimantan. In 2018, the updated environment license was secured which also covers, but is not limited to: (i) production in Tapian Timur, (ii) development of three bridges in the hauling road, (iii) upgrading of production facilities in the coal processing area, and (iv) solar panel installation in the coal processing area. Securing these licenses is subject to considerable regulatory hurdles, see “Regulations.”

Coal Special Terminal Operation Permit

Adaro Indonesia has obtained a coal special terminal operating permit in Kelanis Village, Dusun Hilir Sub-District, South Barito District, Central Kalimantan Province. This terminal is used by Adaro Indonesia to load coal onto barges.

Lend-Use Forest Area License

Adaro Indonesia has obtained lend-use forest area license covering 7,492.3 hectares of production forest area in its concession area.

Other Mining Licenses

Decree			Permit		Period (Years)	Location
Number	Date	By	Type	Holder		
No. 503/188/KEP/ PERTAMBEN/2010	April 29, 2010	Regent of Lahat	IUPOP	PT Mustika Indah Permai	20 until 2030	Lahat Regency, South Sumatera Province
No. 0466 K/30/ MEM/2015	February 12, 2015	Ministry of Energy and Mineral Resources	IUPOP	PT Paramitha Cipta Sarana	20 until 2029	Balangan Regency, South Kalimantan Province
No. 0427 K/30/ MEM/2015	February 10, 2015	Ministry of Energy and Mineral Resources	IUPOP	PT Semesta Centramas	20 until 2029	Balangan Regency, South Kalimantan Province
No. 0636 K/30/ MEM/2015	February 24, 2015	Ministry of Energy and Mineral Resources	IUPOP	PT Laskar Semesta Alam	20 until 2034	Balangan Regency, South Kalimantan Province

For more information regarding the other material licenses, see “Regulations — Coal Mining Regulations.”

Marketing and Sales

Due to its ultra-low sulfur and ash content, Adaro Indonesia’s coal has been trademarked as “Envirocoal” and has been marketed under that name since it commenced operations. Initial marketing focused on Europe and the United States where legislation specifically restricting emissions by coal-fired power generators was being introduced. As Adaro Indonesia was an early large scale producer of sub-bituminous coal, it needed to educate prospective customers to develop a market in Asia for sub-bituminous coal. The main benefits of Envirocoal to Adaro Indonesia’s customers are: (i) the consistency of coal quality, (ii) the consistent, reliable supply to customers due to the Group’s vertically integrated supply chain and (iii) Adaro Indonesia’s geographical proximity to customers located in the region in comparison to global competitors. We have also focused marketing efforts on high quality customers in the Indonesian market which helps us satisfy the Domestic Market Obligation stipulated by Indonesian government, see “Regulations — Domestic Market Obligation.” Of our exports, our primary markets are China, Malaysia, Japan, India, South Korea and other markets in the region.

Coal Supply Agreements and Pricing

We have historically sold the majority of our coal through fixed-term coal supply agreements with major power generation companies and intend to continue to do so. We believe that long-term volume contracts provide stability and volume visibility for our operations. Many of our coal sales are obtained through competitive bidding processes held by the buyers. Under our long-term contracts, we typically renegotiate pricing annually using fixed or index-linked pricing. During the ramp up stages of our assets, we generally sell initial coal volumes at spot prices before developing coal supply arrangements for those assets. For our coal export sale payments are typically made through letters of credit, in line with Regulation S of the Government of Indonesia.

Customer Base

Our strategy is to maintain direct relationships with our customers and we sell substantially all of our coal to end-users pursuant to long-term contracts. We strive to maintain our key relationships with blue-chip, investment-grade customers. In 2018, Adaro Indonesia had over 60 end-user customers located in 14 countries. Adaro Indonesia’s top 10 customers represented 55.3% of Adaro Indonesia’s 2018 sales value and its top 10 customers have, on average a 15 year relationship with Adaro Indonesia. Adaro Indonesia’s top five customers have an average of 20 years of relationship with Adaro Indonesia and contributed 36.0% of sales in the year ended December 31, 2018. In the year ended December 31, 2018, 88.8% of Adaro Indonesia’s customers, by volume of coal supplied, were involved in the power generation industry. Adaro Indonesia’s remaining customers are predominantly cement manufacturers and other industrial end-users.

The following table sets forth Adaro Indonesia's 10 largest end-user customers in terms of sales volumes for the six months ended June 30, 2019. Adaro Indonesia's 10 largest end-user customers represented approximately 49% of total sales volumes for the six months ended June 30, 2019.

End-User Customer by Sales Volumes for the Six Months Ended June 30, 2019

Customer	Industry	Country	Length of Relationship (years)	Sales Volume	
				(Mt)	(% of Adaro Indonesia's sales volume)
Customer 1	Power Generation	Malaysia	17	3.5	12%
Customer 2	Power Generation	Indonesia	21	2.1	8%
Customer 3	Power Generation	Hong Kong	16	1.3	5%
Customer 4	Power Generation	China	5	1.2	4%
Customer 5	Power Generation	Taiwan	23	1.1	4%
Customer 6	Power Generation	India	3	1.0	4%
Customer 7	Power Generation	China	5	1.0	4%
Customer 8	Power Generation	South Korea	23	0.9	3%
Customer 9	Power Generation	Japan	16	0.8	3%
Customer 10	Power Generation	India	18	0.8	3%
Total				<u>13.8</u>	<u>49%</u>

Adaro Services

Our Adaro Services business encompasses all of the mining services providers within our Group. Our operations in this business focus on providing high quality support to our own mining operations as well as to third parties. These mining services range from mining to engineering, land transport and technical services.

PT Saptaindra Sejati ("SIS")

SIS was established in 1999 and commenced commercial operation in April 2002 and is now our wholly owned subsidiary. SIS is one of Indonesia's leading mining contractors and provides a broad range of services for coal mining companies, including contract mining, mine planning, civil works, infrastructure development, land transportation and reclamation of mining areas.

In 2018, in response to an increase in volumes demanded, SIS invested US\$269.1 million to purchase, acquire and replace heavy equipment, develop infrastructure, purchase other supporting equipment and major refurbishments. As of December 31, 2018, SIS owned more than 2,000 units of mining and transportation equipment, including up to 400 tonne class face shovels and excavators, dump trucks and highway haul trucks, and a total utilized capacity of 220.6 million BCM of overburden removal and 44.9 million tonnes of coal transported, respectively.

For the year ended December 31, 2018 and the six months ended June 30, 2019, SIS transported approximately 31.9 million tonnes and 18.0 million tonnes of coal, representing 66.0% and 70.6% of Adaro Indonesia's total coal production, respectively.

For the year ended December 31, 2018, SIS accounted for 44.5% of the Group's total overburden removal and 67.6% of the Group's total coal transport volume, and SIS handled 41.9% and 66.0% of Adaro Indonesia's overburden removal and coal transport, respectively in 2018.

While continuing to serve our Group as its primary customer, SIS remains committed to seeking growth opportunities from third party customers, who accounted for 29.0% of SIS' standalone revenue (before the elimination of intragroup transactions and balances) in the year ended December 31, 2018 and 29.7% of SIS' standalone (before the elimination of intragroup transactions and balances) revenue for the six months ended June 30, 2019. SIS has long-term relationships with its main third party customers, in excess of 12 years.

Adaro Logistics

We believe that a critical part of our success is the coal supply reliability that we provide to our customers. As such, we maintain control over coal movements from the pit to its destination to ensure that coal is delivered according to the committed specifications, on time and free from contaminants. Beginning in 2013, our Adaro Logistics business began to consolidate our logistics operations and subcontractors into a cohesive group of companies, most of which are wholly owned, which now oversee our coal and fuel barging, transshipment and ship loading, channel dredging and maintenance, stevedoring, port and other related businesses. In addition to reliability, this business has strengthened our pit-to-power supply chain by controlling costs.

PT Maritim Barito Perkasa (“MBP”)

Our wholly owned subsidiary MBP provides coal barging services from Kelanis to either our customers' locations in Indonesia or transshipment points at Taboneo and IBT. As of June 30, 2019, MBP operated a fleet of 33 barge sets (tug and barge) and four self-propelled barges. The total volume handled by the MBP's owned fleet for the six month period ended June 30, 2019 is 14.2 million tonnes, together with other subcontractors MBP transported approximately 85% of Adaro Indonesia's combined volumes. MBP also has six transshipment facilities comprising of four floating cranes, two floating transfer units and nine supported vessels. MBP primarily services our internal coal mining operations with its marine logistics fleet.

PT Indonesia Bulk Terminal (“IBT”)

Our wholly owned subsidiary IBT's port terminal facility is located as a natural deep water harbor in the southernmost part of Pulau Laut. IBT believe that its facility, which is located on an island adjacent to the international shipping lanes of the Makassar Straits, is strategically located because it is the sole public common-user bulk terminal facility servicing coal produced in South Kalimantan. IBT's main activities are coal and fuel handling services.

PT Harapan Bahtera Internusa (“HBI”)

Our wholly owned subsidiary HBI engages in two major business activities: shipping administration/agency services for Adaro Indonesia at Kelanis Dedicated Coal Terminal (“Kelanis”) and fuel barging from IBT's Pulau Laut terminal to Kelanis.

PT Sarana Daya Mandiri (“SDM”)

Our majority (51%) owned subsidiary SDM has conducted dredging activities at the Barito River channel since 2008. This allows the channel to be navigable for two way traffic on a 24-hour basis for both our operations and the shipping activities of third parties.

PT Indonesia Multi Purpose Terminal (“IMPT”)

Our majority (85%) owned subsidiary IMPT manages the floating terminal at Taboneo anchorage for our coal shipments. The operations included port control and vessel placements in well-defined vessel waiting area and coal transshipment area that separates vessels of different sizes, such as Handymax, Panamax, and Capesize. These activities have significantly enhanced the safety of vessel navigation into and out of Taboneo and the transshipment process at the port for both our products and those of third parties shipping through Taboneo.

PT Puradika Bongkar Muat Makmur (“PBMM”)

Our wholly owned subsidiary PBMM has been rendering cargo stevedoring at Taboneo and Kelanis. Currently, PBMM has 34 units of heavy equipment (dozers and loaders) to fully support Adaro Indonesia's operation. At Kelanis PBMM exclusively serves our stevedoring needs, while at Taboneo PBMM services third parties, when we do not fully utilize its capacity.

Adaro Power

As part of our overall pit-to-power strategy, we recognized an opportunity to enter the power sector. We believe this business will create stable income generation, independent of coal price fluctuations, while ensuring

a captive market for our coal as well as permit us to continue to contribute to the advancement of Indonesia, in response to the Indonesian Government's national strategic infrastructure development policy, which includes development of electricity infrastructure. TPI and BPI's revenue depends on meeting the operating parameters set out under the PPAs with PLN. Pursuant to the terms of their respective PPAs, all coal prices are passed through to PLN.

We have one operating power plant and are shareholders in two joint ventures, each of which is developing a coal-fired power station. The power plant being constructed by TPI is estimated to commence operations at the end of 2019. TPI's first unit was commissioned and began commercial operations in September 2019, with the second unit estimated to be commissioned and start commercial operations at the end of 2019. The power plant being constructed by BPI is scheduled to commence operations at the end of 2020 under its PPA, although there is no guarantee that construction will be finished on schedule or on budget. The following table sets out information about our power projects.

Project Name	Size/Technology	Ownership	COD	Expected Coal Requirement (Mt per year)	Portion of Expected Coal Requirement to be fulfilled by the Group (%)
Makmur Sejahtera Wisesa (CFPP)	2x30 MW CFB technology	100%	2013	c.0.4	100
Tanjung Power Indonesia (CFPP)	2x100 MW CFB technology	65%	Estimated end of 2019	c.1.0	100
Bhimasena Power Indonesia (CFPP)	2x1,000 MW Ultra Super Critical	34%	Scheduled end of 2020	c.7.0	71
Makmur Sejahtera Wisesa (Kelanis Solar PV) . . .	100 kWp	100%	2018	N/A	N/A

Makmur Sejahtera Wisesa ("MSW")

In 2013, through our subsidiary MSW, we commissioned our first power plant, a 2x30 MW coal-fired power plant in Tanjung, South Kalimantan. This power plant was designed to be a captive power plant providing electricity to our operations in the area under a Power Purchase Agreement entered into by MSW and Adaro Indonesia. MSW sells excess power to PLN for distribution to PLN's South and Central Kalimantan grids. Adaro Indonesia supplies coal to MSW from Adaro Indonesia's Wara mine.

Tanjung Power Indonesia ("TPI")

TPI, a 65%-owned joint venture between PT Adaro Power and PT East-West Power Indonesia, a subsidiary of Korea East-West Power Co. Ltd., to develop a 2x100 MW coal-fired power plant in the Tabalong Regency, South Kalimantan to sell electricity to PLN under a PPA with a take-or-pay structure for a period of 25 years from the project's COD. Pursuant to the terms of the PPA, coal prices are passed through to PLN under an agreed pricing mechanism. TPI's revenue depends on meeting the operating parameters set out under the PPA.

As of June 30, 2019, 50% of the equity commitment has been injected into TPI and the remaining 50% has been funded through a bridge loan guaranteed by Adaro Energy and Korea East-West Power Co Ltd on a several basis according to their shareholding in TPI. The project is part of the Government of Indonesia's electricity fast track program phase 2 (FTP-2), under a build, own, operate and transfer (BOOT) scheme. The engineering, procurement and construction (EPC) of the project is carried out under a fixed price, lump sum, date certain, turnkey contract with Hyundai Engineering Co. Ltd. as offshore equipment supplier and PT Hein Global Utama as construction contractor. The entire coal requirements of TPI, in the region of one million tonnes per annum, will be supplied by Adaro Indonesia, with back up coal supply arrangements provided by two of the Balangan Coal Companies (SCM and PCS).

TPI obtained support from the Government of Indonesia, represented by the Minister of Finance of the Republic of Indonesia ("MOF"), in the form of a Business Viability Guarantee Letter ("BVGL") dated January 3, 2017, whereby certain payment obligation of PLN under the PPA are guaranteed by the Government of

Indonesia. The BVGL came into effect at financial close and remains effective until 17 years after the start of operations. TPI achieved financial close in January 2017. The project is financed using a combination of equity bridge loans and loans structured on a limited recourse basis with Korea Trade Insurance Corporation (K-Sure) providing comprehensive cover insurance to the banks providing the limited recourse loan.

Bhimasena Power Indonesia (“BPI”)

BPI, a 34%-owned joint venture between PT Adaro Power, Electric Power Development Co. Ltd. (J-Power) and Itochu Corporation was established in 2011 to develop a 2x1,000 MW coal-fired power plant in the Batang Regency, Central Java to sell electricity to PLN under a PPA with a take-or-pay structure for a period of 25 years from the project’s COD. Pursuant to the terms of the PPA, coal prices are passed through to PLN under an agreed pricing mechanism. BPI’s revenue depends on meeting the operating parameters set out under the PPA.

As of June 30, 2019, US\$278 million of equity commitment has been funded through a subordinated term loan guaranteed by Adaro Energy. The engineering, procurement and construction (EPC) of the project is carried out under a fixed price, lump sum, date certain, turnkey contract with Mitsubishi Heavy Industries Ltd and GN Power Ltd as offshore equipment suppliers, and Sumitomo Corporation as construction contractor. As mentioned above, BPI is scheduled to commence operations at the end of 2020, under its PPA with PLN, although there is no guarantee that construction will be finished on schedule or on budget. In the event the start of operations is materially delayed, BPI, and hence the Group, could face a potential penalty or other consequences pursuant to the PPA. Once completed, BPI will be one of the largest coal-fired power plants in Southeast Asia to use ultra-supercritical boiler technology, which enhances the efficiency of the plant and hence mitigates the environmental impact of electricity generation in comparison to conventional technology, for a given amount of energy production.

BPI reached financial close in June 2016. The equity portion of the financing was committed in the form of equity bridge loan and limited recourse loan. The limited recourse loan was mostly provided or covered by the Japan Bank of International Cooperation (JBIC). Up to five million tonnes of the seven million tonnes annual coal requirement for the project will be supplied by Adaro Indonesia. This project is the first and the only power project with a public-private partnership scheme in Indonesia, benefitting from a Government of Indonesia (represented by the Ministry of Finance) guarantee together with the Indonesia Infrastructure Guarantee Fund (“IIGF,” or *PT Penjaminan Infrastruktur Indonesia*) and is part of the Government of Indonesia’s master plan for acceleration and expansion of Indonesian economic development.

Renewable Projects

In addition to coal-fired power projects, we are seeking opportunities to develop power projects from renewable energy sources. To this end, MSW installed our first solar renewable project, the 100-kWp rooftop-mounted solar PV panels at Adaro Indonesia’s coal processing and barge loading facility in Kelanis, Central Kalimantan. This project is 100% owned by us, operational since 2018 and expected to generate 125,000 kWh of electricity per year, which will be used to power our operations. Further, together with Electricite de France SA (EDF), we are presently at the preliminary stage of exploring a renewable power project opportunity in Sulawesi.

Competition

Adaro Mining

The international seaborne coal market is highly competitive, with exporters from Indonesia, Australia, Russia, South Africa, Colombia and the United States. Our principal competitors from Indonesia are PT Bayan Resources Tbk, PT Indika Energy Tbk, PT Bumi Resources Tbk, PT Berau Coal Energy Tbk, PT Indo Tambangraya Megah Tbk, PT Harum Energy Tbk and PT Bukit Asam Tbk.

According to IHS Markit, Envirocoal is world-leading in terms of low sulfur, low ash, and low nitrogen content. Envirocoal’s CV is lower than many international coals and it compares favorably to Indonesian

competitors. Furthermore, on an energy produced per sulfur content and energy produced per ash content basis, Envirocoal is the world leader by a very significant margin. Given the increasingly restrictive regulations on coal globally, we believe Envirocoal is well-positioned to help end users with compliance. Additionally, we believe that Envirocoal is a valuable blend pair for other less compliant coals. As a result of the foregoing factors, we believe that demand for Envirocoal will continue to support our revenue stream from Adaro Mining in the long-term.

Adaro Services

We compete on the basis of price and reliability to customers. We face competition from large local conglomerates with mining operations such as PAMA and BUMA. In addition, our customers face competition from domestic and international coal mining companies, as well as providers of other sources of energy, such as renewable energy. As we depend on our customer's demand for our services, we are indirectly exposed to the competition that they face.

Adaro Logistics

Logistics is a very competitive business. Adaro Logistics mainly competes on the basis of price, time delivery and safety. Our competitors are PT Meratus Advance Maritim, PT Mitra Bahtera Segara Sejati Tbk, and PT Pulau Seroja Jaya.

Adaro Power

The provision of power solutions services in Indonesia is highly competitive and our competitors have substantial operations and market share. With the development of our independent power production business, we will face additional competitors in both thermal and renewable energy based power generation sectors.

According to IHS Markit, Indonesia's power demand has increased to 232 TWh in 2018 from 145 TWh in 2010, representing an annual growth of 6.1%. All segments have contributed to this growth with residential and public (lighting, social and government) consumption segments representing the fastest growth. These two segments have been driven by Indonesia's high urbanization growth rate, especially in the Java-Bali region as well as grid expansion and electrification programs in other regions. The growth in the commercial sector power demand reflects the growing role of the service sector in Indonesia's economy. Residential power demand growth is expected to continue as the population grows more affluent in both urban and rural areas, while an increasingly skilled workforce, improved logistics and affordable energy will continue to see demand grow in the industrial sector. Therefore, we anticipate that there will continue to be ample demand for our power business. In addition, we believe that our long term PPAs with PLN assure our revenues and cash flows until their respective expirations.

Other Supporting Units

Adaro Land: We believe our operations are best supported by sufficient land to accommodate our large scale of operations. As such, we established Adaro Land to become a strategic land asset and infrastructure company that contributes to the growth and operational sustainability of Adaro Energy's businesses which include management of land assets and properties, development and construction of supporting infrastructures, rehabilitation and reclamation of land, and forestry management.

Adaro Land also leads rehabilitation and reclamation projects in our mining operation companies to ensure their compliance with the prevailing laws and obligation. Furthermore, our forestry management division develops carbon emission reduction projects to support our commitment for environmental sustainability.

Adaro Water: We started our water business by forming Adaro Water in 2017. Since commencing operations, we have developed several projects with various Indonesian regional government drinking water company ("PDAM") to supply, via PDAM, water to Indonesian cities and we will seek to continue to expand our market share. Adaro Water is expected to deliver impactful contributions to the Government's efforts in supplying clean water for the welfare of the Indonesian population. We strive to contribute to the Government's efforts to improve the well-being of Indonesians by making clean water more available. We believe that this business will not only contribute to Group's revenues, but also support our social initiatives in Indonesia.

Adaro Capital: We added the Adaro Capital business in 2017 to capitalize on our financial resources and extensive networks to capture investment opportunities, such as the Kestrel acquisition made in 2018. Kestrel is a joint venture company formed by EMR (52.01%) and Adaro Capital (47.99%).

Adaro Foundation: We founded the Adaro Foundation in 2009 to support the communities in which we operate. Through this foundation, we focus on providing support in five main areas: economic independence, educational enhancement, health improvement, socio-cultural promotion and environmental conservation.

Worker Health and Safety Standards

We seek to maximize workplace health and safety in all of our operations through the implementation of a comprehensive occupational safety, health and environmental management plan that meets international standards. This management plan has been developed in accordance ISO 9001, OHSAS 18001 and ISO 14001. Adaro Indonesia and SIS have been certified by those standards throughout their respective operations.

As part of strong commitment of Adaro Energy in strengthening the occupational health, a series of technical guidelines have been established and trained to all business units in order to prevent work-related illness and to improve fitness level of all employees.

In 2018, QHSE Steering Committee established two standards that can be used as references by business units to managing occupational health and safety, and environment: (1) the Adaro Occupational Health and Safety Management Standard (SMK3 Adaro); and (2) the Adaro Environmental Management Standard (SML Adaro). Most of our operating subsidiaries are required to comply with those standards and annually audited to verify the implementation performance by HSE Corporate function of Adaro Energy.

In 2018 the QHSE Steering Committee initiated a program, “AZAM — Adaro Zero Accident Mindset,” designed to improve the work safety mindset across all our employees with the goal of achieving zero accidents. The QHSE Steering Committee issued a circular letter to, among others, require all companies within the Group to set the target to “zero,” not only for serious accidents, but also for first aid cases, medical treatments, work-related illness, and environmental contamination.

We reported two fatalities in 2018. Subsequently we have taken all corrective actions according to the recommendations of the Government and other necessary measures for safety improvements in order to prevent the reoccurrence of similar incidents. We have also made progress in respect of our identified safety challenges, but we recognize that standards and expectations for safety rise continuously and that we must keep setting goals for ourselves. Safety will continue to be a priority, now and in the future. In 2018, the Group achieved a LTIFR (lost time injury frequency rate per one million hours worked) of 0.13 while until August 2019 the indicator shows an improved trend of at 0.06.

All employees attend a safety induction program upon employment and also attend regular training seminars for all aspects of operations. Use of personal protective equipment is mandatory and regular training sessions are also undertaken for all employees on the proper use of safety equipment including that of emergency equipment. Prior to use, all equipment shall pass the commissioning criteria, and, on a daily basis, the operator performs pre-use safety checklists. Adaro Indonesia has expanded its emergency station post to four locations in order to accelerate response time in responding to emergency situations. Job Safety Analysis and related training is required for all critical tasks which could lead to serious incidents.

Employees

As of December 31, 2018, we employed approximately 12,538 employees across the Group. The employees are located in Kalimantan, Sumatera and Jakarta. There are currently no pending labor disputes.

We utilize contractors extensively in our coal production operations for mining, hauling, barging and transshipping, as well as for the provision of services such as catering, stevedoring, security and labor supply. The total contractor workforce of Adaro Indonesia as of December 31, 2018 was 18,884 employees, with more than 30% of those being employed by Adaro Indonesia’s third-party mining contractors. There have been no labor disputes impacting to Adaro Indonesia’s mining operation within our contractors’ labor force.

Our employees and contract workers regularly attend in-house training programs in health and safety, leadership and management. Specialized training in the areas of mining, legal, human resources and finance and administration are given to selected supervisory staff. Our commitment to training helps better position employees for promotions and helps maintain high employee retention rates.

In 2014, we hired an independent consultant specializing in the area of employee engagement to evaluate employee engagement in the Group. The study conducted by the consultant indicated that the Group outperformed similar organizations in some aspects, while other aspects were opportunities for growth. As a result of this study, we implemented an action plan to build employee engagement. We expect to conduct a second study to measure employee engagement in 2019.

Our employee compensation packages include sponsored health coverage, accident insurance and enrollment in the pension scheme sponsored by the Indonesian government. The employees domiciled outside the district of the company's operational area are provided with dormitory accommodation. However, the company also encourages them to participate in developing the surrounding communities by being a part of and living within the local communities, for which the company provides rent allowances. On site medical facilities, with emergency evacuation capabilities, serve both Adaro Indonesia's and its contractors' employees at Tutupan, Kelanis and the Taboneo anchorage, similar facilities exist at the Balangan Coal Companies' mines and AMC.

Environmental Matters

We are subject to the provisions of our environmental licenses and other prevailing regulations, which require us to identify, manage and monitor each significant impact to the surrounding environment, which includes water, air, land, flora and fauna, as well as the social, economic and cultural aspects. There were no significant environmental incidents within our operational locations as of June 30, 2019. In 2018, we received several environmental awards from the Ministry of Environment and Forestry and the Ministry of Energy and Mineral Resources. In addition, Adaro Indonesia and SIS, the Group's main mining and mining services operations, have established, implemented and maintained ISO 14001:2015 and obtained certifications for their environmental management systems since 2011 and 2013, respectively.

Our mining operations comply with environmental laws in all material aspects. Land affected by mining is reclaimed progressively with replanting by service companies involving the local workforce. Post-reclamation uses for land include planting of commercial crops, creating fish farms and developing recreational areas. Water run-off from disturbed areas is closely monitored and treated in settling ponds before it is discharged to rivers. In addition, we attempt to keep disturbed areas to a minimum. Out-of-pit waste dumps are planned, with the waste being deposited in mounds up to six meters high. The final dump forms are contoured, top-soiled and planted with various fast-growing local grasses and trees.

We monitor air quality continuously in our concession areas and at intervals along the haulage road to Kelanis to ensure that methods being used to control dust levels comply with regulation and to minimize impact on local communities. Air quality is controlled by fixed water sprays placed at intervals around the coal crusher. Water run-off from stock piles is channeled through an extensive drainage system to settling ponds for settlement of all solids, including coal dust. Water released from these settling ponds is closely monitored.

Waste management principally involves the disposal of used oils, grease and other hydrocarbon products from equipment maintenance and overhaul workshops. Each of our workshops contains drainage systems for holding waste oils before disposal. Waste oils are disposed of through government-licensed disposal companies. Solid waste within the concession areas are collected and organic and recyclable waste is separated. Solid waste is then delivered to a local government managed disposal areas.

We prepare and submit to the Government a regular report on environmental performance. The Ministry of Energy and Mineral Resources, in conjunction with the Ministry of Environment and forestry, oversees compliance with environmental laws and regulation in Indonesia at our concessions. We have, in general, complied with environmental standards and no significant environmental incidents have been noted indicated by Green Proper award from the Ministry of Environment and forestry, of which shows beyond compliance status, since 2013.

Insurance

We have insurance coverage for property all risks and business interruption, comprehensive general liability (includes product liability, pollution and contamination and employer's liability), marine cargo (cover for all kind of cargo during voyage by any kind of transportation at land, air and water), heavy equipment all risks policies issued through certain reputable Indonesian insurers.

Under the terms of our agreements with mining contractors, the contractors are responsible for their own employees and they and their employees must also be covered by appropriate insurance and provide periodic evidence of such coverage.

Awards

As a reflection of our drive for operational excellence and commitment to our employees and community, we have received a number of awards, including the following:

Year	Award	Institution
2019	BPI received Global Good Governance (3G) Award 2019 — category Environmental Responsibility Award	Cambridge IFA
	100 Fastest Growing Companies Awards 2018 for coal mining category	infobank
	Indonesian Sustainable Development Goals Award (ISDA) 2019: Platinum for contributing in achievement of SDGs 5 (Gender Equality) — Women entrepreneurship program; Gold for Gold for contributing in achievement of SDGs 1 (No poverty) — Prosperous Community Empowered Cooperative Program and SDGs 3 (Good health and well-being) — (Program Bersih Makmur Sehat Masyarakat Berdaya (BIMA SEMBADA))	Corporate Forum for Community Development (CFCD)
2018	Green Rating — Program of Corporate Performance Rating in Environmental Management (PROPER)	The Ministry of Environment and Forestry
	Global CSR Award: Best Environmental Excellence Award — Companies with Market Capitalization above US\$1 Billion	The Pinnacle Group International
	TPI received Fast Track Power Plant of the Year Award	Asian Power Awards 2018
	Alpha Southeast Asia Best Corporate — Institutional Investor Awards in the categories of Best Annual Report in Indonesia and Best Strategic Corporate Social Responsibility	Alpha Southeast Asia Magazine
	Investor Awards for The Best Issuer in the Mining Sector	Investor Magazine
2017	Green Rating — Program of Performance Rating in Environmental Management (PROPER)	The Ministry of Environment and Forestry
	CSR Indonesia Award for Health Contribution CSR Program, Independent Community CSR Program, Educational CSR Program and Social Service CSR Program	CSR Indonesia
	Platinum Rating — Indonesian Sustainable Development Goals Award for Good Health and Well-being / Pillar 1 of National Development	The Ministry of National Development Planning
	1st rank in Annual Institutional Investor Awards for Corporates for the category of Best CFO in Indonesia	Alpha Southeast Asia Magazine

Year	Award	Institution
2016	- Adaro Indonesia received a Green PROPER Award - Adaro Indonesia received Padmamitra Award for corporate social responsibility in social welfare implementation for poverty alleviation - Our President Director & CEO, Garibaldi Thohir, received Best Green CEO Award and Most Admired CEO Award - Social Business Innovation Company Award for Environmental Empowerment Technology Program in Coal Mining category - BPI received Asia Pacific Power Deal of the Year 2016 Award	Ministry of Environment and Forestry Ministry of Social Affairs Warta Ekonomi Warta Ekonomi Project Finance International

Litigation

From time to time, members of the Group are or may be involved in legal proceedings concerning matters arising in connection with the conduct of their respective businesses.

There are no governmental, legal or arbitration proceedings involving Adaro Energy, Adaro Indonesia, SIS or MBP that may have a material effect on our financial position and operation.

COAL MINING INDUSTRY

This section has been prepared based on the Coal and Power Market Study prepared by IHS Markit. None of us, Adaro Indonesia or the Initial Purchasers or any of our or their respective advisors have independently verified the information set forth in this section. IHS Markit prepared this report based on its industry knowledge, in-house database, independent third-party reports and publicly available data from reputable industry organizations.

The statistical and graphical information contained in this report — including historical data and forecast future supply, demand and market trends — was produced by compiling, interpreting and analyzing production, economic, statistical and technical information from many third-party sources. This information was obtained from sources believed by IHS Markit to be reliable, but there can be no assurance as to the accuracy or completeness of included information. Data included in this section with respect to any period in the future is forecasted by IHS Markit based on its available sources and internal analysis.

Forecasts and assumptions included in this report are inherently uncertain because of events or combinations of events that cannot reasonably be foreseen, including, without limitation, the actions of governments, individuals, third parties and competitors. Prospective investors should not place undue reliance on such statements, or on the ability of IHS Markit or any third party, to accurately predict future industry trends and performance.

Thermal Coal

Brief overview of thermal coal

Uses and categories

Thermal coal is primarily used to boil water to spin turbines in coal-fired power plants or to provide direct heat in industrial processes. The range of coals used in power generation vary from lignite/brown coal (CV <3500 kcal/kg, NAR) to anthracite (CV >7,000 kcal/kg, NAR).

Key characteristics

Energy content/CV. The most important characteristic to purchasers of thermal coal buyer is the CV of the coal. Effectively, the CV of the coal is the amount of energy that is released when coal is burned. When coal is burned, the carbon portion forms carbon dioxide, while the hydrogen portion forms steam. The amount of energy released on this basis is the gross amount of energy and is the basis of GAR. However, some energy is absorbed, as the steam condenses to form water and is the basis of NAR (which accounts for the loss of the absorbed energy).

Ash Content. When a coal has been burned, the portion that does not burn (primarily mineral matter) will remain as an ash. The ash content is important primarily as it determines how much energy is in the coal.

Ash Deformation Temperature. The high temperatures in a boiler make it critical that the ash does not become liquid and stick to the heat-conducting surfaces of the boiler. The characteristic that quantifies this dynamic is the ash fusion temperature. The most frequently quoted number is the initial deformation temperature which refers to the temperature at which the ash begins to soften. Most boiler applications generally require an initial deformation temperature of 1,200 degrees centigrade.

Sulfur. Coal contains sulfur compounds which, when burned, are converted to sulfur dioxide. Sulfur dioxide has been shown to have a deleterious impact on plant growth and therefore, over the last three decades, there has been an increasing emphasis on reducing sulfur dioxide emissions from power plants.

Physical hardness/Hardgrove Index. Coal has to be crushed before being fed to the burners which requires both energy and time. As such, harder coal requires more energy and/or time to crush the coal.

NO_x. Coal quality influences the NO_x emissions from a power plant. The lower the volatility of a coal the greater the tendency to increase NO_x emissions.

Overview of Global Thermal Coal Demand

Global thermal demand changes from 1990 – 2040

Estimates of total global coal demand from 1990 to 2040 are shown in Figure 1 below. Global demand peaked in 2018, as growth in India and Southeast Asia was offset by declines in Europe and the United States, with Chinese domestic demand roughly flat. Over the next 10 years, ongoing declines in Europe and the United States will slightly outweigh growth elsewhere, including slight global growth in coking coal demand, with the decline accelerating thereafter.

Year	Thermal (BBt)	Coking (BBt)	Total (BBt)
1990	3.1	0.6	3.7
2000	3.4	0.4	3.9
2010	5.1	1.0	6.1
2018	5.3	1.1	6.4
2030	5.0	1.2	6.2
2040	4.5	1.2	5.7

Source: International Energy Agency, IHS Markit

Figure 1. Global coal demand, 1990 to 2040 in billions of tonnes.

Coal's part in the generation mix varies widely around the world as shown in Figure 2. Coal is still the dominant fuel in the Asia-Pacific region, while in most other regions it is either steady or declining (Figure 3). Coal's share of global power generation increased steadily through 2013, rising from 42% in 1990 to 43% in 2000 and 46% in 2010. Since 2013, coal's market share has declined to just under 45% and it is expected to decline steadily to 37% in 2030, 32% in 2040 and 29% in 2050. This decline is being driven by low gas prices and environmental concerns in the EU, where many countries aim to have ended coal-fired generation by 2025.

Year	2010	2015	2020	2025	2030	2035	2040
Africa	52.1%	47.3%	38.6%	29.9%	25.4%	20.1%	16.8%
Asia Pacific	40.8%	51.1%	60.0%	58.4%	50.1%	42.2%	37.2%
Commonwealth of Independent States	20.6%	21.3%	20.6%	20.4%	20.8%	21.3%	23.1%
Europe	38.7%	30.5%	25.1%	16.4%	5.4%	2.2%	1.9%
Latin America	3.0%	3.0%	3.7%	4.5%	1.9%	1.4%	1.4%
Middle East	4.3%	6.3%	3.9%	2.8%	2.7%	0.9%	0.4%
North America	47.1%	46.8%	40.3%	22.4%	13.7%	6.2%	2.6%

Figure 2. Coal's share of the generation mix, by region.

Year	2010	2015	2020	2025	2030	2035	2040
World Total	3,640	3,905	4,106	3,955	3,965	3,868	3,797
Africa	111	110	112	121	124	127	133
Asia Pacific	2,095	2,591	3,013	3,061	3,194	3,202	3,230
Commonwealth of Independent States	189	174	196	196	207	208	214
Europe	397	380	264	172	100	68	50
Latin America	18	30	24	15	12	11	11
Middle East	13	11	13	18	15	14	7
North America	817	608	485	374	313	238	154

Figure 3. Total coal demand for electricity and heat by region, in MT

While coal is consumed globally, the primary consumers are China, India and the United States. These three countries combined used 49% of global coal in 1990, 58% in 2000, 70% in 2010 and 71% in 2018. The coal usage increased despite coal demand in the United States decreasing from 900 MT in 2000 to 535 MT in 2018, which reflects the substantial shift away from the Atlantic-centric market and towards the Asia-Pacific market (which now represents >80% of the market).

The global seaborne thermal coal market is still growing, and IHS Markit expects this to remain the case until approximately the end of the 2020s. In the 2030s, seaborne traded tonnage will likely decline slowly. Demand growth will be driven primarily by ongoing growth in India, which will continue increasing import volumes through the forecast period, as well as growth in other countries in the Indian Ocean and Southeast Asia. In the 2020s, this growth will offset expected declines in Europe, China, Japan, Korea and Taiwan. In the 2030s, the growth areas and decline areas will largely offset, causing an expected slow decline.

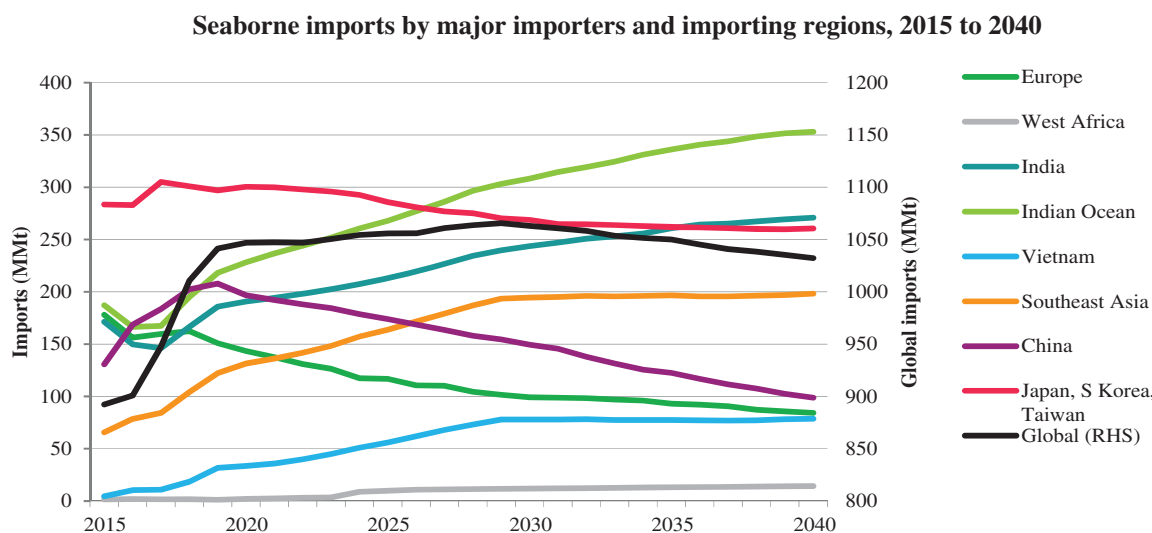
Because the demand growth areas are focused on the Indian Ocean and Southeast Asia — both markets for Indonesian coal — the export market for Indonesia expected to be robust enough to meet supply. However, while Indonesian exports are expected to grow in the near term, the export market is expected to plateau in the long term due to growing domestic demand. IHS Markit anticipates a risk of underinvestment in thermal coal supply in most exporting countries globally, and anticipates a supportive price environment in the longer term as a result.

Global Seaborne Thermal Demand

Overview

IHS Markit's expectations for import demand through 2040 follow a similar trajectory to that of total trade — peaking in 2029 before declining thereafter. Nevertheless, demand growth through 2029 is expected to be solid, with demand in 2018 of 1,011 MT rising to 1,066 MT — a 55 MT increase — in 2029. However, much of the anticipated growth is occurring currently, with strong consumption in India and Vietnam spurring an expected 31 MT increase in demand in 2019 relative to 2018 levels — despite sizeable declines in a number of Atlantic markets. There will be another 24 MT of demand growth over the next ten years, which is remarkable given that there will be an expected decline of almost 50 MT in Europe alone, along with an expected Chinese thermal import decline of 53 MT, and Japan, Korea and Taiwan combined declining 29 MT.

Imports history and forecasts



Source: IHS Markit

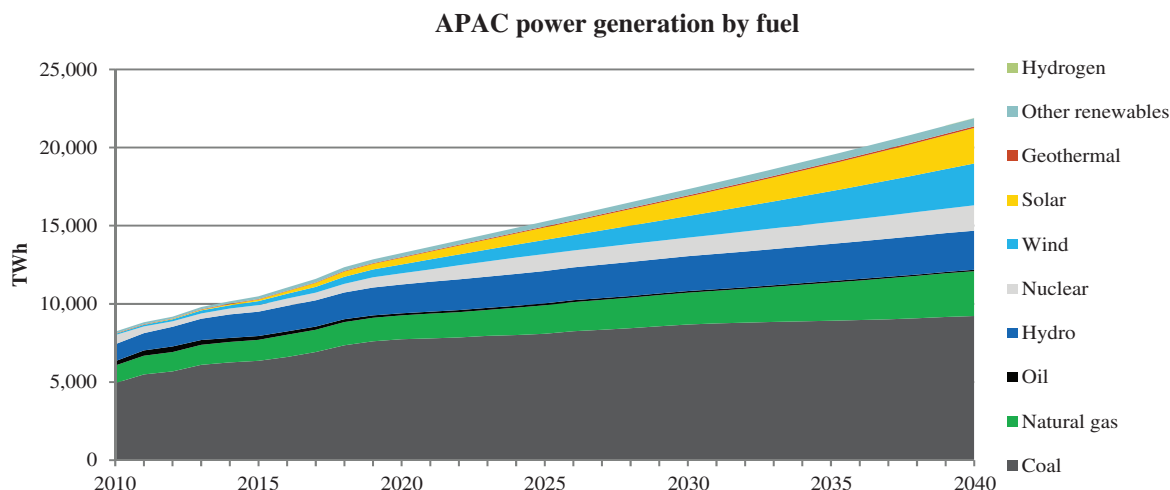
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Figure 4. Import expectations to 2040

Thermal Coal Demand in the APAC Region

Coal share in APAC's electricity generation

IHS Markit's expectations for the power generation mix in APAC forward through 2040 are shown in Figure 5. While coal's share of power generation will steadily decline – falling below 50% by 2040, it will remain a growth fuel throughout the forecast period.



Source: IHS Markit

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Figure 5. Power generation mix in APAC to 2040

Demand outlook for low CV coal

Demand in this quality range is expected to grow slightly in coming years, and plateau in the long term. The driver is a counterbalance: ongoing growth in demand from India and countries in Southeast Asia offset by declines in demand from China.

The evolution of this low CV quality range is particularly impactful to Indonesia, since more than any other quality range, Indonesia dominates the supply of <4,200 kcal/kg NAR coal, with only Mongolia and the Philippines (both of whom export their entire supply to China) considered viable competitors in this quality range.

The lowest rank coals are likely to continue to move to destinations close to Indonesia, while qualities in the higher end of the range are likely to move increasingly to India, especially as Chinese demand declines.

Demand outlook for sub-bituminous coal

Sub-bituminous coal demand will increase at a slightly higher rate than low CV coal over the next decade, but beyond that period, the outlook is for a very slow decline. In general, demand growth comes from India, the Philippines, Bangladesh, Vietnam and other Southeast Asian countries. Against that growth, however, is declining demand primarily from China but also from South Korea, Taiwan, and to a lesser extent, Japan.

The evolution of sub-bituminous coal demand in the coming decades is critical for the future of Indonesian coal exports, as it is again the dominant supplier. Other sub-bituminous coal suppliers are the United States, Russia, and small volumes of off-spec coal from South Africa and, in the longer term, probably Australia.

Indonesian Power Market Supply and Demand

Current status of power demand

Indonesia's power demand has increased to 232 TWh in 2018 from 145 TWh in 2010 which represents an annual growth of 6.1%.

All segments have contributed to this growth with residential and public (lighting, social and government) consumption segments experiencing the fastest growth. The residential and public segments have been driven by Indonesia's high urbanization growth rate, especially in the Java-Bali region, as well as grid expansion and electrification programs in other regions. The growth in the commercial sector power demand reflects the growing role of the service sector in Indonesia's economy.

Going forward, IHS Markit forecasts 5.2% annual power demand growth from 2019 to 2028, which is lower than historical growth patterns. This forecast is modest compared with the 6.5% annual demand growth in the 2019 RUPTL, primarily due to IHS Markit's slower GDP growth forecast.

Residential power demand growth is expected to continue as the population grows more affluent in both urban and rural areas. An attractive demographic, increasingly skilled workforce, improved logistics and affordable energy will continue to result in demand growth in the industrial sector.

Driving factors that impact power demand

Indonesian economic growth: Long-term growth is forecast to average 4.7% annually through 2040, with real per capita GDP growth projected to remain steady in the high 3% range.

Regional development: Java (especially the greater Jakarta area) and Sumatra, together, account for more than 80% of Indonesia's total GDP, mainly due to the developed manufacturing industry and their convenient geographical location near Singapore and Malaysia. Indonesian power demand is also concentrated in these two key regions, as these two regions together consume approximately 90% of Indonesia's power. The economies in east Indonesia, while small, are poised for growth.

Electrification: The Bright Indonesia Program, which was launched in 2016, is aimed at increasing the electrification rate in the eastern part of the archipelago. As of the end of 2018, the electrification rate in Indonesia was 98.3%. The country remains aggressive on achieving 100% electrification by 2020.

Electricity intensity: IHS Markit expects electricity demand to grow at a higher pace than the GDP in Indonesia in the period up to the early 2030s. Industrialization and energy efficiency gains in the long term will result in decreasing electricity intensity.

Industrial growth: After the residential sector, the industrial sector represents the largest power consumption segment in Indonesia. The growth of the industrial production will have a strong impact on future power demand.

Population growth: Indonesia is the fourth-most populous country in the world, with a population of approximately 261 million recorded in 2016. Over the next 10 years, the country's population will grow at an average of 0.9% annually and will reach 292 million by 2029.

Power consumption trend and future fuel mix outlook

Indonesia has an abundance of natural resources, endowed with fossil fuels. This has supported the expansion of its thermal power capacity. Currently, the installed capacity in Indonesia is approximately 67 GW, of which almost 90% are fossil fuel fired generation assets. By the end of 2019, the installed capacity in Indonesia will reach 69 GW, as plants that are currently under construction are expected to commence operations.

Over the past decade, the installed capacity has almost doubled, while the capacity mix has become more shifted towards fossil fuel fired generation, rising from 83% to 89% to date. Alongside the rise, Indonesia has also been endeavored to reduce its reliance on expensive oil-fired generation. The share of capacity from oil has declined from 12% in 2009 to 9% to date, despite the use of additional oil-fired capacity in isolated locations.

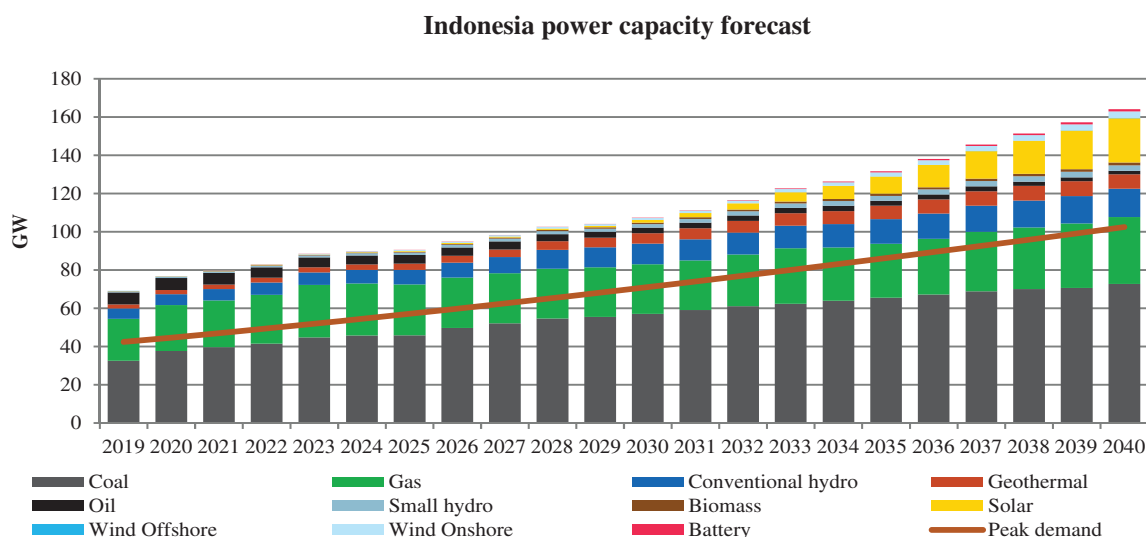
The capacity fuel mix has evolved from being dominated by gas-fired generation to coal-fired generation as coal-fired capacity additions outpaced gas-fired capacity by more than three-to-one. This can be partly attributed to the addition of almost 10 GW of coal-fired generation capacity due to the Fast Track Program 1 ("FTP 1"). Coal-fired generation's share of the total capacity has risen from 30% to 48%.

Power generation has grown by almost 80% over the past decade. Fossil fuel fired generation is still a mainstay in Indonesia, maintaining a share of above 85% in the last ten years. Coal-fired generation currently comprises the largest share, more than tripling over the past decade from just over 40% in 2009 to nearly 60% in 2018.

Future fuel mix

By 2028, IHS Markit forecasts that there will be approximately 38 GW of net capacity additions. In contrast, the 2019 RUPTL plans for 57 GW of net capacity additions, primarily due to the demand growth forecast of 6.1% per year compared to IHS Markit's forecast of 4.9%. Coal-fired capacity addition will take up the majority share over the next ten years, outpacing the aggregate of all other technologies.

In the longer term, IHS Markit forecasts that Indonesia's peak demand and power generation needs will both increase by approximately 150% by 2040. To meet this growth, IHS Markit estimates that 97 GW of net capacity additions will be required by 2040, bringing the total installed capacity by 2040 to 164 GW. These capacity additions will be comprised of 43% coal-fired generation, 15% gas-fired generation, 16% from hydropower and geothermal combined and 32% from other renewables. Indonesia has endeavored to reduce its reliance on expensive oil-fired generation and IHS Markit expects that nearly 4.5 GW of oil-fired generation will be retired.



Source: IHS Markit

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Figure 6. Indonesia power capacity forecast

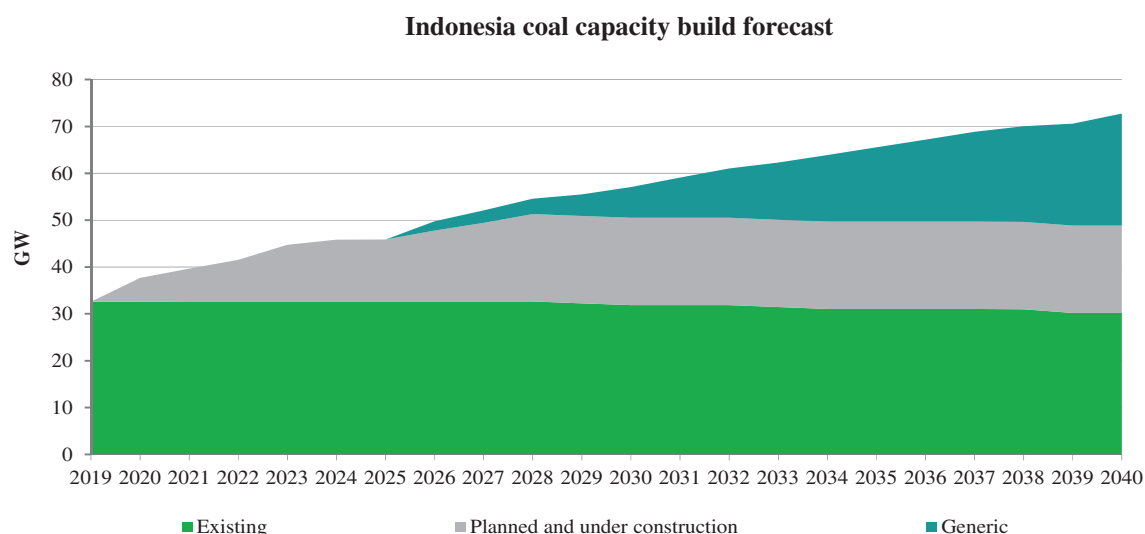
By 2040, Indonesia's power generation is forecasted to increase by 140%, or approximately 4.5% per year. Across all fuel types, the largest contributor to the increase comes from coal, which accounts for 64%, followed by renewables at 35% then gas at 3%. Most of the growth from renewables will come from geothermal and hydropower which alone account for more than 60% of the renewable generation increase.

By 2040, coal-fired generation will continue to play an important role in Indonesia's power sector, supplying baseload generation, primarily due to the availability of domestic resources and the low cost of the fuel vis-à-vis gas. It will account for just over 60% of the generation fuel mix, which is in line with current levels.

Outlook for coal-powered electricity capacity

The growth of coal has been most prominent over the last few years. Coal capacity has increased by nearly 10 GW from new plants under FTP 1. In addition to the FTP 1 projects, another 11 GW of coal-fired generation projects commenced operations over the past decade.

Indonesia's coal-fired capacity is relatively young, with almost 70% of the 32 GW coal fleet having operated for ten years or less, of which approximately 9 GW have operated for less than five years. Given the age profile of the coal plants, 22 GW of existing coal-fired capacity is expected to continue operating for another 20 to 25 years.



Source: IHS Markit

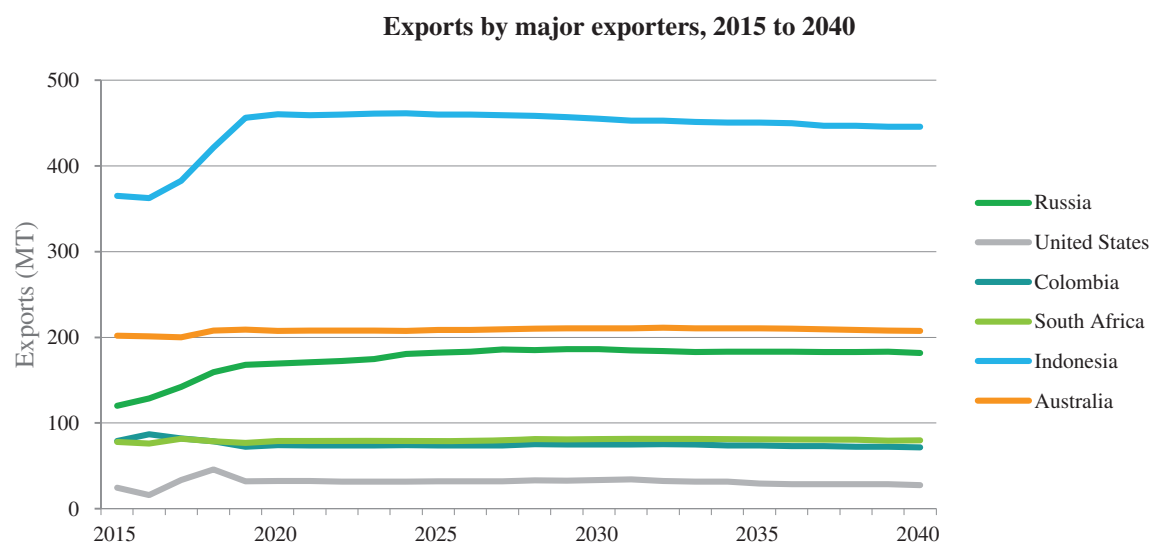
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Figure 7. Coal plant capacity build forecast

Global Thermal Coal Supply

Global export trends and forecasts by region

Indonesia is poised to remain the dominant thermal coal supplier through 2040. Supply from Indonesia is expected to grow in coming years, before pressures to maintain domestic supply cause supply to plateau and ultimately decline.



Source: IHS Markit

Figure 8. Export expectations to 2040

Similarly, Russian supply is expected to grow and then plateau. Russia is one of the few countries in the world where there is available coal for production, infrastructure investment, and government backing. Financing is a ubiquitous issue worldwide, and while government money is assisting logistics improvements, production investment needs to come from the private sector, and investments in long life assets are challenging from a risk management perspective given coal's uncertain and volatile outlook. Furthermore, even though the Russian government is investing in rail infrastructure, IHS Markit expects these improvements to take longer than expected. These issues prevent IHS Markit from having a stronger Russian export growth outlook, but Russia nevertheless has the strongest expected growth in supply over the next ten years of any supplier.

Australia, South Africa and Colombia will all follow similar export trajectories, with each fighting an ongoing battle to replace tons lost from aging or closing mines, and maintain adequate investment to allow some amount of growth. United States exports will struggle to bounce back from the 2019 drop and will decline further in the 2030s.

Canada will see some export growth in coming years but will remain a small global thermal coal supplier.

Outlook for Indonesian Thermal Exports

Indonesian coal exports by quality and quality evolution

Indonesia's coal exports are expected to continue to grow in the near term, but plateau within the next few years, as production and export restrictions become stricter, domestic demand obligations increase as Indonesia's coal-fired power plant fleet rapidly grows, and the growth rate of the international market slows. Despite this, Indonesia will remain the dominant global thermal supplier throughout the forecast period, supplying twice the amount of thermal coal as compared with the second-largest supplier, Australia.

Indonesia's coal qualities are declining, and this is reflected in export qualities too. IHS Markit does not see large scale issues as a result of this, as buyers will likely blend in greater amounts of higher CV coal from other countries over time due to the availability of those coals.

Indonesia exports forecast



Source: IHS Markit

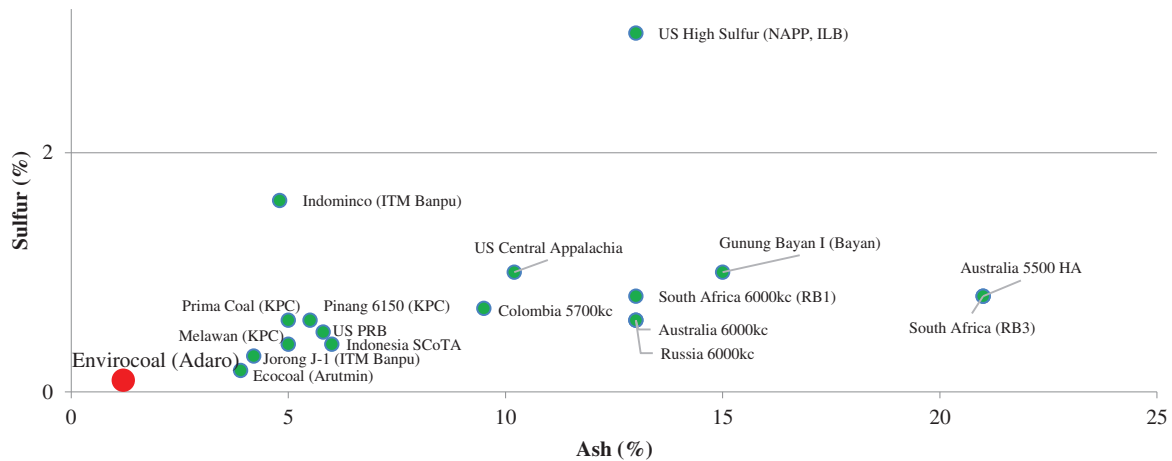
Figure 9. Indonesia's coal exports by quality to 2040.

Comparison of Adaro Indonesia's coal quality to domestic and international competitors

While calorific value is the most discussed “quality” in global seaborne trade, buyers are also highly focused on other qualities, such as sulfur content, ash content, moisture content, concentrations of trace elements, and behavioral characteristics such as ash fusion temperature.

Adaro Indonesia's Envirocoal is a world leader in terms of helping end users comply with quality limitations. It has both the lowest sulfur content and lowest ash content, and its nitrogen content is extremely low (30-50% lower than most of its competitors).

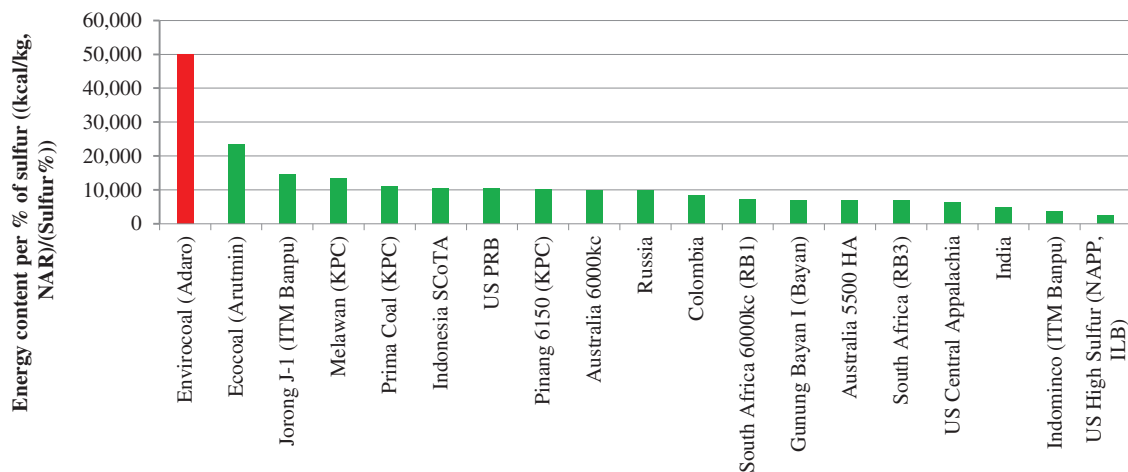
Sulfur vs Ash content: Adaro coal an ideal low ash, low sulfur coal for burning or blending



Source: IHS Markit, GlobalCoal, APBI-ICMA

Figure 10. Envirocoal sulfur and ash contents compared to other major Indonesian and international products

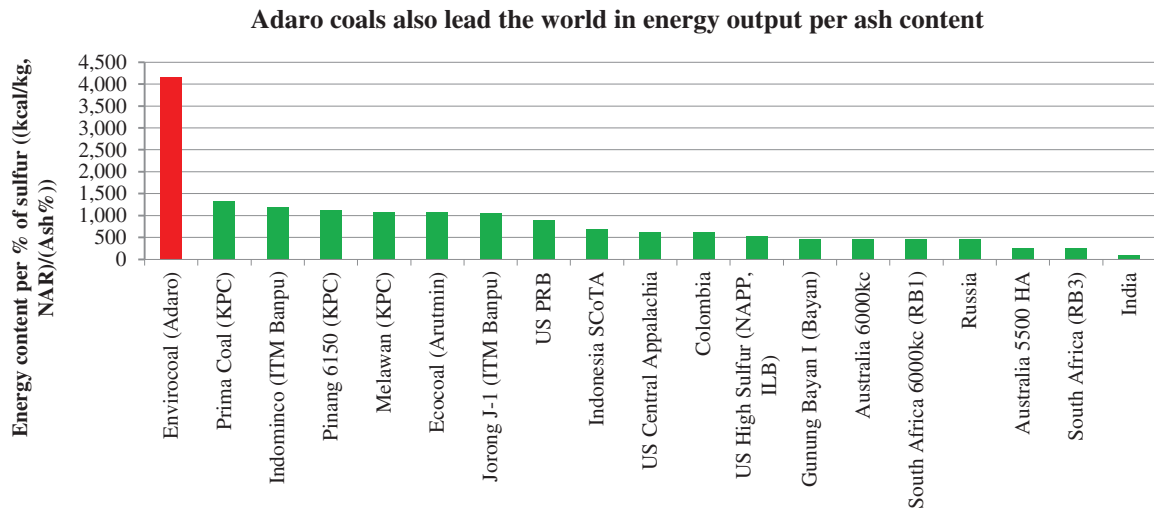
Adaro coals also lead the world in energy output per sulfur content



Source: IHS Markit, Global Coal, APBI-ICMA

Figure 11. Envirocoal energy output per sulfur content

These quality characteristics also highlight how Envirocoal commands a pricing premium when compared to other 5,000 kcal/kg, GAR coals.



Source: IHS Markit, Global Coal, APBI-ICMA

Figure 12. Envirocoal energy output per ash content

Indonesia coal reserves by coal type

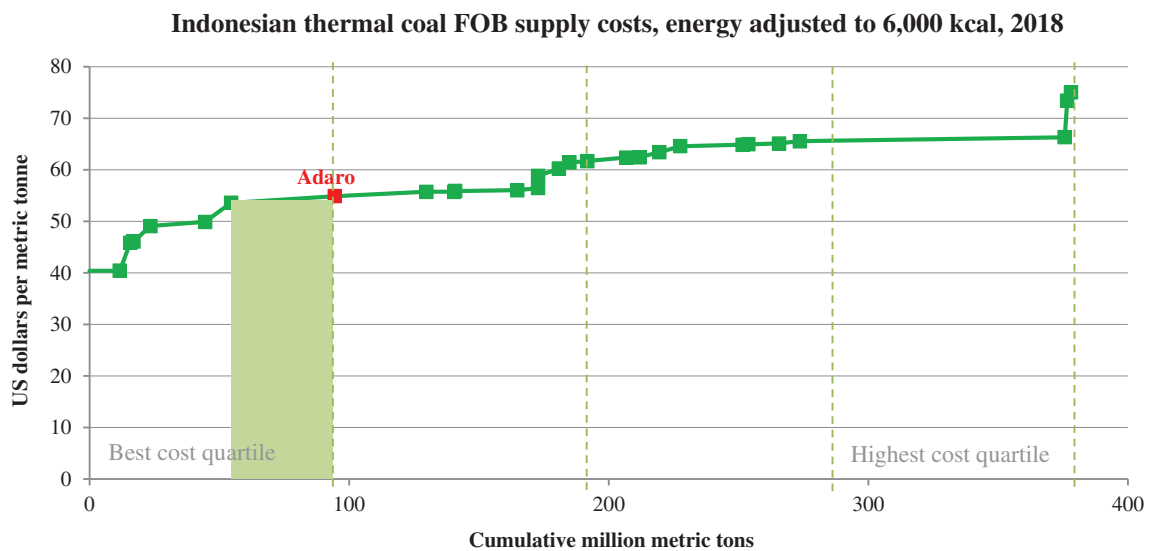
Coal Grade (kcal/kg)*	Resources (MT)					Reserves (MT)		
	Hypothetical	Inferred	Indicated	Measured	Total	Probable	Proven	Total
<5,100	639	11,351	10,171	10,562	32,725	5,687	5,677	11,365
5,100-6,100	3,288	26,086	23,958	25,325	78,658	4,828	5,740	10,569
6,100-7,100	590	4,516	2,644	3,394	11,146	915	985	1,901
>7,100	2	1,578	676	390	2,647	259	144	404
Total	4,520	43,532	37,450	39,673	125,177	11,691	12,548	24,239

Source: Geological Agency of Indonesia, 2018. Reserve data is from 2017. * = air dried basis

Thermal Coal Operating Metrics

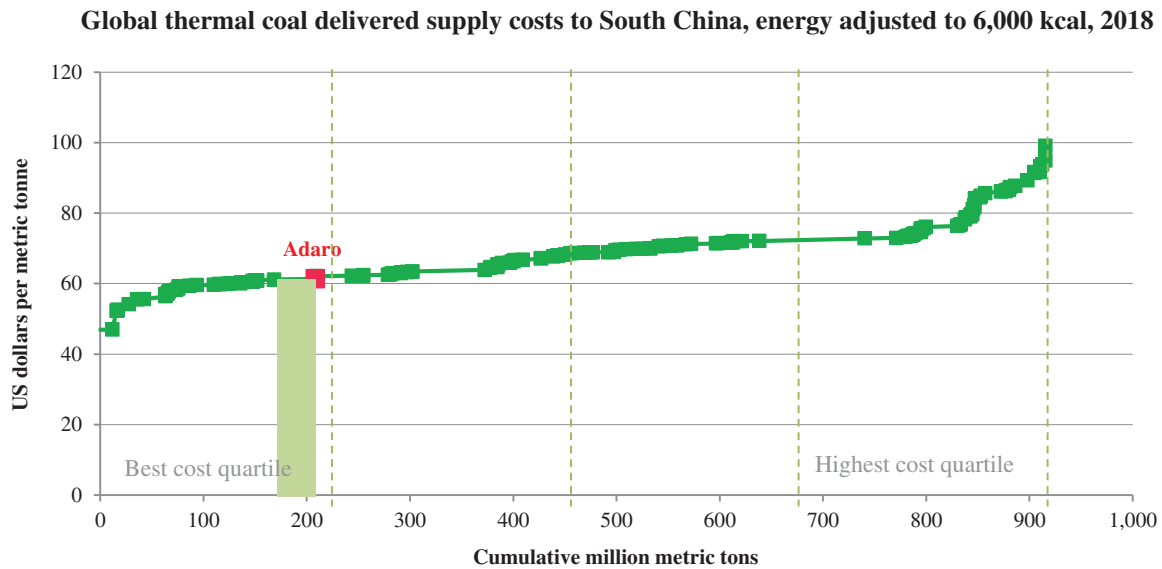
Adaro Indonesia's production costs positioning comparisons

In terms of FOB Port costs for the competitiveness of Adaro Indonesia's coal against its Indonesian peers, the low cost of Adaro Indonesia's operations presents a very strong competitive position.



Source: IHS Markit

Figure 13. Indonesian mining costs, energy adjusted to 6,000 kcal/kg, NAR.

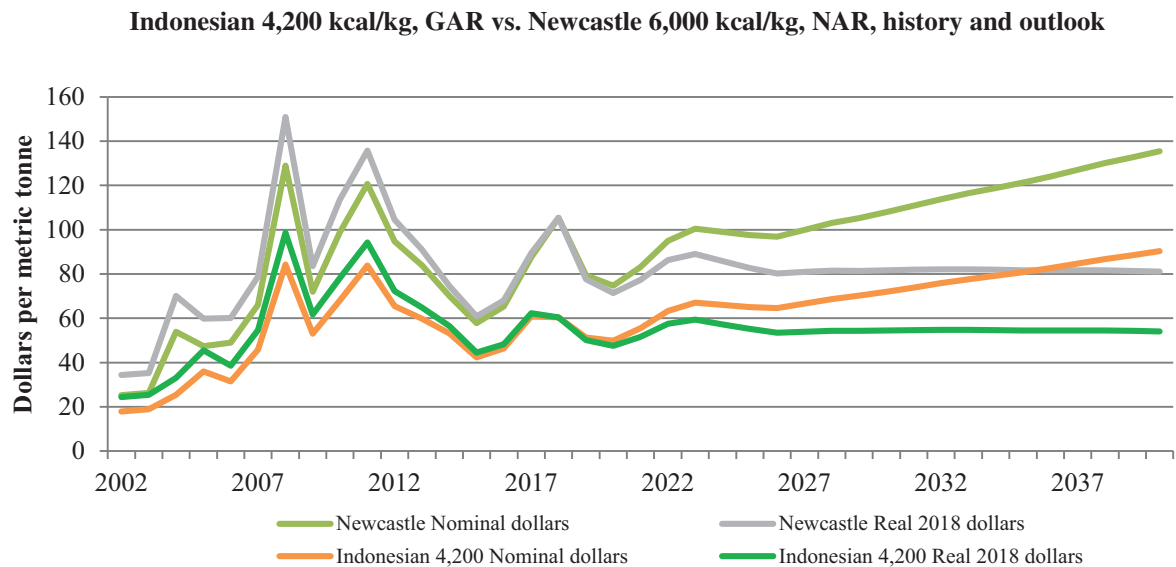


Source: IHS Markit

Figure 14. Global thermal costs, delivered southern China, energy adjusted.

Thermal Coal Price Outlook

Current status and historical price for Newcastle and Indonesia



Source: IHS Markit

Figure 15. Price history and outlook for Indonesian 4,200 GAR and Newcastle 6,000 NAR coal

Coking Coal

Brief overview of coking coal

Use and categories

Coking coal is coal that, when heated out of contact with air, forms the sponge-like hard material that is called coke. Coke is a feedstock for blast furnace steel production, essentially providing as close to 100% pure carbon as possible. The process of forming coke is often referred to as carbonization and is carried out predominantly across the world in slot ovens or non-recovery ovens.

Key characteristics

The way that coal behaves during heating to produce coke is a key determinant of its quality as coking coal. When a coking coal is heated out of the presence of air it will initially start to soften and shrink, and then become fluid, at which point the volatile carbon hydrogen compounds will gasify and be released. During this fluid stage, the coal will gradually solidify and swell physically. In the final stage of the coking process, the solid mass of porous coke will shrink slightly.

Essentially coal has four basic constituents in its make up:

- Carbon in various crystalline forms that will determine whether or not a coal is a coking coal;
- Carbon/hydrogen compounds that volatilize when coal is heated;
- Mineral matter that is either dispersed through the coal or produced in the mining process; and
- Moisture either locked into the structure of the coal (inherent moisture) or as surface moisture.

Variations in these constituents drive the behavior of coal during heating.

Coking coal outlook overview

As with thermal coal, the global coking coal market is currently growing, primarily due to import demand from India, China and Vietnam. IHS Markit expects this growth to continue through 2040.

India has rapidly growing steel production, current steel demand per capita levels far below most developed countries, movement of production towards blast furnaces, and little indigenous coking coal production. As a result, Indian coal imports will continue to grow through 2040 and will be the single biggest driver of growth for thermal coal demand by a significant margin.

Along with growth in India, import demand in China is expected to grow in the near term, before declining slowly from approximately 2030. While blast furnace steel production is expected to start declining soon, China's declining ability to produce quality coking coals signifies that imports will still need to grow. In addition to China, increases in import demand are anticipated for other countries as well, most notably Vietnam.

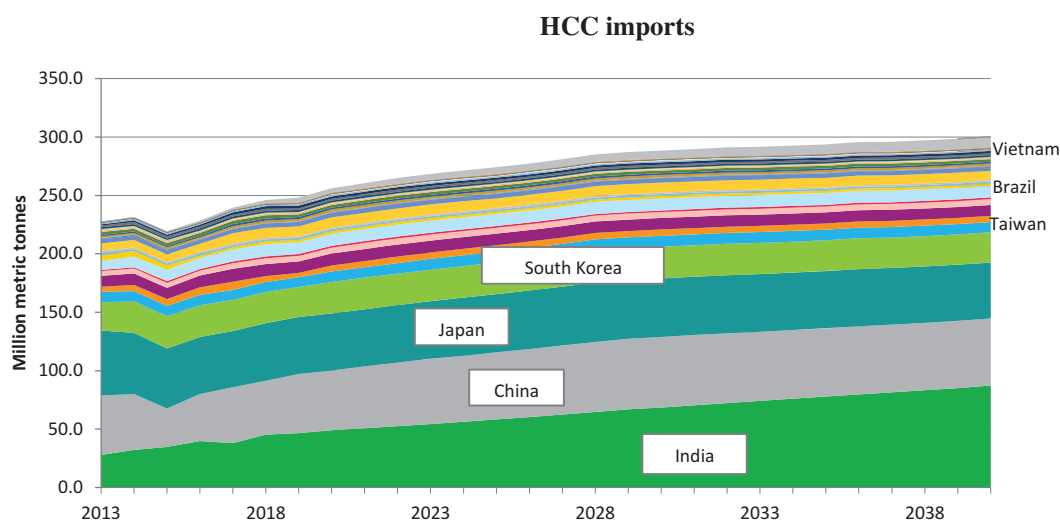
While some countries will have declining import demand, especially in the 2030s, growth in demand is expected to outweigh the declines. As with thermal coal, IHS Markit anticipates risks around underinvestment in coking coal supply. Existing coking coal production, and all new projects, will easily find a market given the expected demand environment, which will be supportive of prices in the long term.

Global coking coal demand

In the near term, exceptionally strong Chinese steel production has increased Chinese coking coal imports this year. This kind of strength is likely to persist in the near term. In the longer term, Chinese steel production

will slowly decline, and a rising portion of it will come from electric arc furnaces. Together these will erode demand for coking coal in the longer term. However, IHS Markit expects domestic production of coking coal to also decline. As a result, IHS Markit expects that China's coking coal import needs will steadily grow in coming years before peaking in approximately 2030 and slowly declining thereafter.

In addition to China, in recent years India has represented strong growth in demand. Indian imports have been growing sharply in recent years. India is growing from a very low steel use per capita country to one with a more normal steel demand. Given the size of India's population, this evolution points to massive growth in metallurgical coal demand. Compounding this, India has fairly small and low quality metallurgical coal production and reserves, meaning that it must lean on metallurgical coal imports for most of its needs. Currently electric arcs represent the majority of steel production in India, but the government is pushing for a higher portion of blast furnaces. Furthermore, since most of the current electric arc capacity is small and fairly high cost, new large and efficient basic oxygen furnaces will outcompete them.



Source: IHS Markit

Figure 16. Global coking coal demand to 2040

Indian coking coal demand

Indian steel production, and with it coking coal demand, is growing rapidly. India has become the second largest crude steel producer (6% share) globally with a capacity of approximately 138 Mtpa in fiscal year 2019. Although India is the second largest steel producer globally, its per capita steel consumption is approximately 70 kgs, which is significantly below the global average. Thus, with an aim of increasing India's per capita steel consumption to 160 kg by 2030, in 2017 the Government of India announced its National Steel Policy ("NSP 2017"). The NSP 2017 plans to increase India's crude steel output to 300 Mtpa by 2030. This impressive growth of India's steel industry has led and will continue to drive a significant increase in India's coking coal (blast furnace/basic oxygen furnace) demand.

Although India has vast deposits of thermal coal, it significantly lacks coking coal resources. Only approximately 10% of India's total coal resource, or 365 billion metric tonnes, is of coking grade. Further, India's coking coal is of very inferior grade (average ash content: 28-34%) and only approximately 15% of the total produce can be used for coking purposes after washing. These factors have resulted in India becoming heavily dependent upon the seaborne market to meet its coking coal demand – over 7% yearly average growth during 2010-18.

For long term outlook, the majority of India's coking coal requirements will have to be sourced from the international market, leading to strong import demand growth in the coming decades. IHS Markit expects India's

coking coal imports to rise from the 2018 level of 61 MT to 93 MT in 2030 and 119 MT in 2040. Underpinning this growth will be coking coal demand growing from approximately 71 MT currently, with only 10 MT supplied from the domestic market, to 151 MT in 2040, with domestic production having only grown to approximately 32 MT.

Chinese coking demand

In 2016, China began to recognize the problem of significant overcapacity in its steel sector and several measures were introduced by the central government to overrule self-interested regional governments that were keeping “zombie” companies alive with soft loans. China announced plans in February 2016 to close a further 100-150 Mtpa of steel-making capacity by 2020, having already cut 107 MT in the last five years. The cut was designed to remove up to 13% of the country’s current steel-making capacity of approximately 1.2 billion metric tons per annum. In January 2019, Chinese authorities announced the planned steel capacity reductions were met a year ahead of target. The next five-year plan for steel involves merging remaining capacity to gain overall efficiencies.

The regulatory tightening, restructuring, safety and efficiency efforts kicked off by the Chinese government are having an effect on coking coal production too, but China faces a more fundamental issue with its coking coal: the best mining areas are progressively being mined out, leaving residual reserves that are lower quality and higher cost to access. Prospective margins for new investments become thinner, and this is expected to directionally deter future investments in coking coal mining. Declining qualities mean that China needs a rising portion of international coal in its domestic coking blends; the share of domestic coking coal used in domestic coking has already fallen, from 85% in 2013 to approximately 80% in 2018.

As a result, IHS Markit expects China’s coking coal production to decline fairly rapidly over the next two decades, from approximately 565 MT to approximately 412 MT in 2030 and 357 MT in 2040. The declining share of coking coal has been replaced by a significant increase in pulverized coal injection (“PCI”) production, as availability of coals suitable for use in PCI is far greater than genuine coking coal resources. PCI production in 2040 is expected to be 166 MT compared to 133 MT in 2018. While the current total demand of 767 MT will fall to approximately 600 MT by 2040, this lower demand will not fully offset the lost domestic coking coal production, spurring stronger imports, over the next 10 years before they decline slowly thereafter.

Global coking coal supply

Global supply outlook

Australia dominates supply of coking coal, and despite efforts by almost every internationally exposed buyer in the world, it is expected to continue dominating supply of coking coal in the long term. Australia’s percentage of overall global supply has declined, but that has been almost entirely due to Cyclone Debbie in 2017, and the return of United States coking coal tons in the recent strong market. Even with these changes, Australia still accounts for approximately 60% of the world’s coking coal supplies. This represents a massive embedded risk in the entire blast furnace steel production sector, since the bulk of this coal comes from Queensland, which has experienced three major cyclones in the last decade, each of which brought widespread flooding, supply interruption, and soaring prices. While there is some risk to the Kestrel operation on the supply side, this is likely outweighed by the pricing benefits, since Queensland cyclones and flooding events have routinely moved prices up over 100%, and held them there for extended periods.

Furthermore, this risk is focused into the hard coking coal market, given the even higher focus of that quality geographically into Queensland. Compounding matters, the East Coast of the United States — a supplier focused on hard coking coal — is prone to supply interruptions from hurricanes, although these tend to be less disruptive than in Australia and more likely to impact port and rail operations than mines.

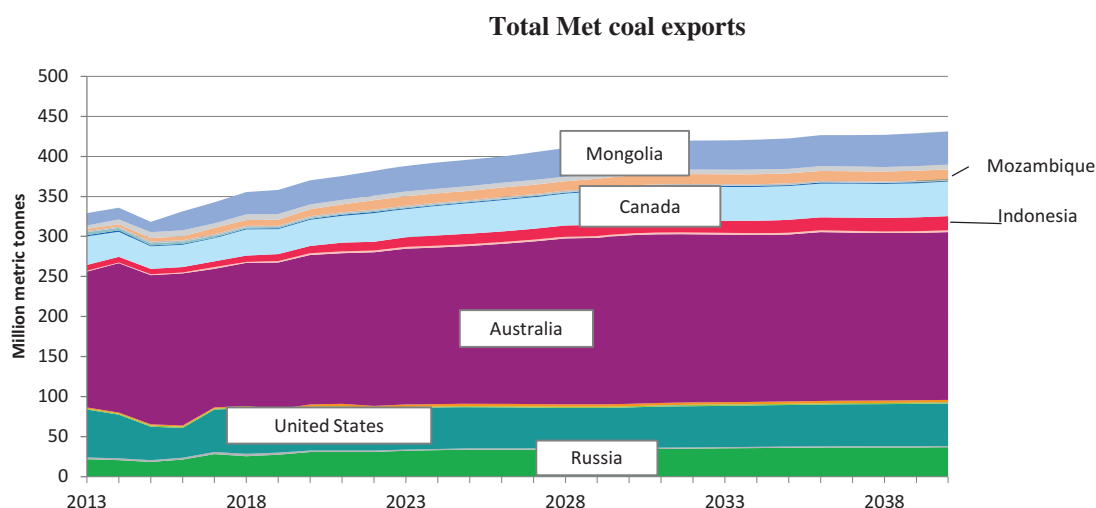


Figure 17. Global coking coal supply to 2040.

Australian coking coal exports outlook

Australia currently supplies coking coal to all of the major demand markets. IHS Markit expects that it will similarly participate in the demand growth of most of the major markets going forward, with India providing the largest demand upside. Proportionally, however, Australian exports will likely see export growth to India grow at a slower rate than overall Indian imports, as tons from the United States, eastern Canada, and Russia supply much of the growth there.

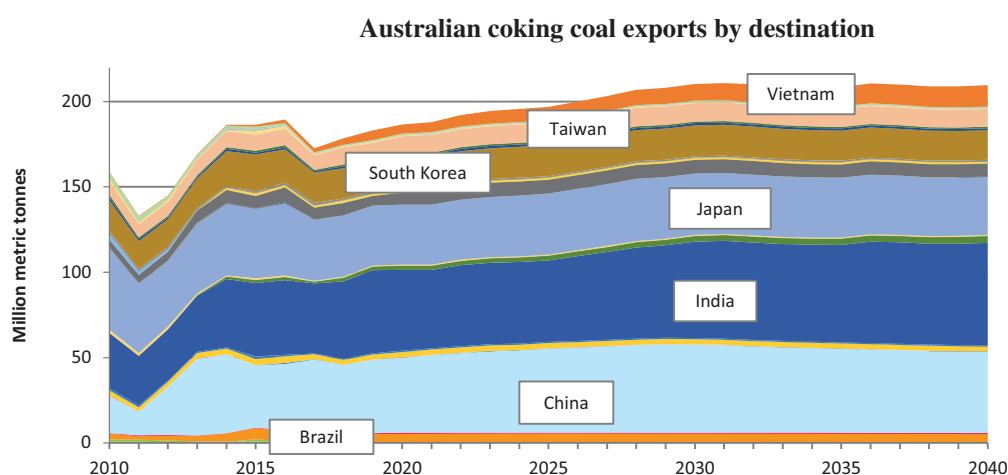
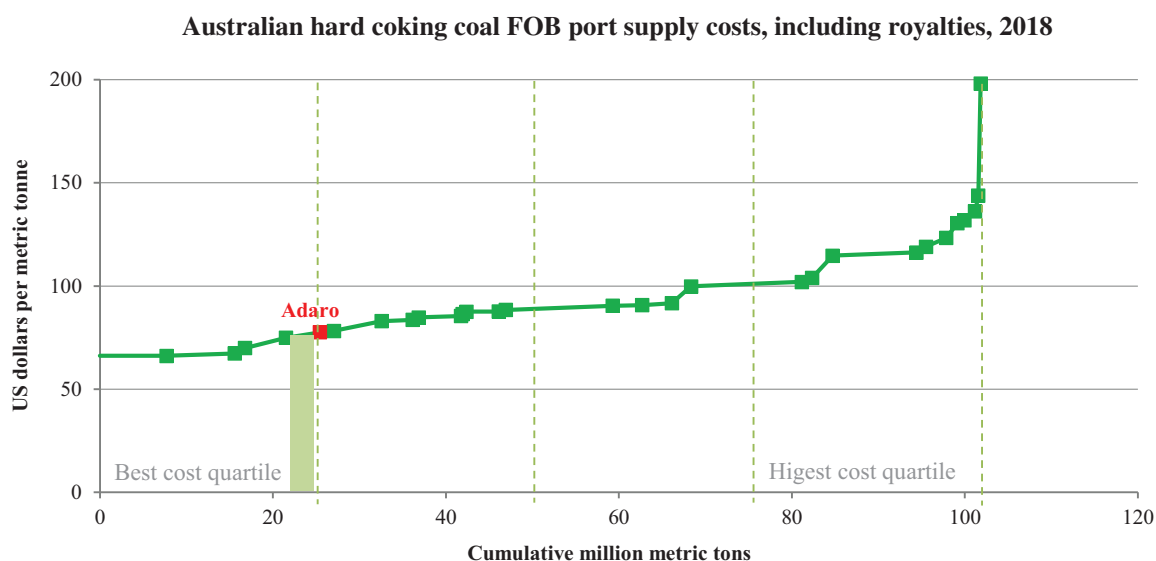


Figure 18. Australian coking coal exports by destination to 2040.

Australian hard coking coal operating metrics

Kestrel's production costs positioning comparisons

The 2018 mining cost curve for Australian hard coking coal suppliers is shown below and includes royalties. In the representation, the low mining cost (\$77.46/tonne, FOB Port) of the Kestrel mine, in which Adaro Energy owns an indirect 34.6% stake, is highlighted. Of the roughly 102 MT of hard coking coal, Kestrel's 4 MT lie in the bottom end of the best quartile of production costs.



Source: MineSpans, IHS Markit

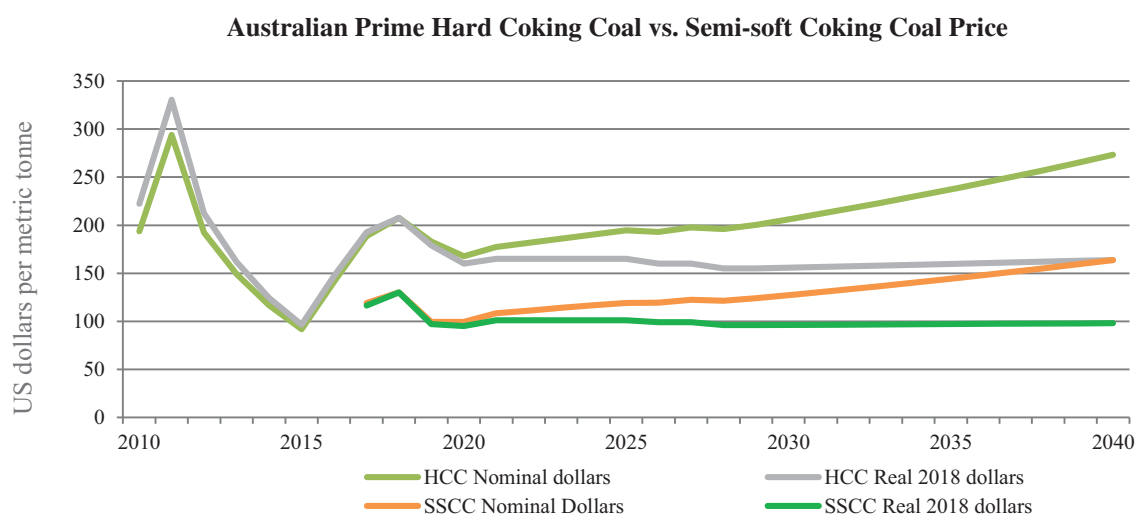
Figure 19. Cost curve for Australian hard coking coal in 2018, including royalties.

Coking coal price outlook

Current status and historical price

After holding up through most of the first half of 2019 — longer than many in the industry expected, coking coal prices have fallen in recent months (Figure 20). Idlings of blast furnace capacity in the United States and in Europe are a symptom of weakness on the demand side and prices reflect these dynamics. Importantly, prices for prime hard coking coal, after tumbling for two months, appear to have stabilized at approximately \$150/tonne. IHS Markit expects prices to remain around this level, as it is low enough to start eroding highest cost suppliers

Coking coal price outlook



Source: IHS Markit

Figure 20. Australian Prime Hard Coking Coal vs. Semi-soft Coking Coal Price history and outlook.

REGULATIONS

We are subject to various coal mining regulations by regional and local authorities in Indonesia. General mining activities in Indonesia are governed by Law No. 4 of 2009 on Mineral and Coal Mining which came into effect on January 12, 2009. The coal mining regulations in Indonesia involve, among others, mining services regulations, domestic market obligations and regional government regulations. In addition, we must also comply with other regulations such as environmental, forestry and shipping regulations.

Coal Mining Regulations

Pursuant to Article 33 of the Indonesian 1945 Constitution, as amended, as well as general mining laws which were enacted after Indonesia became independent in 1945, all mineral resources are deemed to be national assets and are therefore controlled by the state for the best interests of the nation and the prosperity of the people.

As of 1967, general mining activities were governed by Law No. 11 of 1967 on Principle Provisions on Mining (“Old Mining Law”) and its implementing regulations, Government Regulation No. 32 of 1969 concerning the Implementation of Old Mining Law, as amended by Government Regulation No. 79 of 1992 and Government Regulation No. 75 of 2001, Decree of the MEMR No. 1614 of 2004 on the Guidelines for Processing Applications of Contracts of Work and coal cooperation agreement in the framework of Foreign Investment (“Decree 1614”). General mining activities in Indonesia are now governed by Law No. 4 of 2009 on Mineral and Coal Mining (“New Mining Law”) which came into effect on January 12, 2009 which revoked the Old Mining Law.

One of the objectives of the New Mining Law is to provide equal treatment to foreign and domestic investors under the Investment Law (as defined below) of 2007 and includes, among other things, (a) the abolishment of the contract of work system; (b) the introduction of a license based system equally applicable to both foreign and domestic investors; (c) the allowance of foreign investment while also requiring divestment; (d) the authorization of the Government to designate mining areas (Wilayah Pertambangan) within Indonesia; (e) the requirement of a tender process for the granting of new coal mining concessions; (f) the regulation of larger mining areas and reduction terms for production; (g) the requirement to comply with onshore processing obligations; and (h) the regulation of mining services contractors. Under the New Mining Law, new licensing classifications are being introduced, abolishing the previous licensing system which provided for Mining Authorizations (*Kuasa Pertambangan*, or “KP”) and the coal cooperation agreements (*Perjanjian Karya Pengusahaan Pertambangan Batubara*, or “PKP2B”). The new licenses are classified as follows:

- a Mining Business License (*Izin Usaha Pertambangan*, an IUP), which is valid for mining operations of coal, rock, metal mineral and non-metal mineral, within an IUP operational area (*Wilayah IUP*, a “WIUP”), which shall be located within a mining operational area (*Wilayah Usaha Pertambangan* “WUP”). WUP is stipulated by the Government, upon being determined by the regional government and submission in writing to the House of Representatives (*Dewan Perwakilan Rakyat*, the “DPR”). An IUP will only be granted to a business entity, individual, or cooperatives (*koperasi*). An IUP may be obtained by submitting an application to the regent/mayor (for non-foreign investment company only), governor or MEMR, respectively, based on their authority over the WUP and/or by attending an auction process of the mining operational area (except for rock mining).
- a Special Mining Business License (*Izin Usaha Pertambangan Khusus*, an IUPK), which is granted for coal and metal mineral mining, where the mining area (*Wilayah Izin Pertambangan Khusus*, the “WIUPK”) is located within a special mining operation area (*Wilayah Usaha Pertambangan Khusus*, the “WUPK”), being a conversion from a state reserved area (*Wilayah Pencadangan Negara*, a “WPN”) as approved by the DPR for mining operations. Further, an IUPK will only be granted to a legal entity established in one of the following forms: a state-owned enterprise (*Badan Usaha Milik Negara*, a “BUMN”), a regional government-owned enterprise (*Badan Usaha Milik Daerah*, a “BUMD”) or a private business entity. Although a BUMN and a BUMD have priority to obtain an IUPK, a private business entity may obtain an IUPK by participating in an auction or by submitting an application to MEMR specifically for PKP2B holder which PKP2B’s tenure is expiring. As for PKP2B’s tenure is expiring, the holder of the PKP2B could submit an application to extend the mining operation based on Extension IUPK Production-Operation.

- a People's Mining License (*Izin Pertambangan Rakyat*, an "IPR") is granted either for individuals, community groups, or a cooperative within a people's mining area (*Wilayah Pertambangan Rakyat*, a "WPR"). A WPR is determined by the regent or mayor in consultation with the People's Legislative Council (*Dewan Perwakilan Rakyat Daerah*, the "DPRD"). An IPR is available for the mining of coal, rock, metal mineral and non-metal mineral within a limited mining operational area.

Existing PKP2Bs will remain valid for the remainder of their respective terms of contract, but are subject to amendments of certain terms (not including taxes and levies) and may be extended into the form of an Extension Production-Operation IUPK (an "IUPK OPP"). In order to convert an expiring PKP2B to an IUPK OPP, GR 23 (as defined below) requires the holder of PKP2B to submit the application of extension at the earliest two years before the expire of the PKP2B period and, at the latest six months before the period of the PKP2B expires.

Furthermore, the enactment of the New Mining Law demonstrates the Government's attempt to protect and promote national and local mining companies in the Indonesian mining sector. This is reflected, for example, by the obligation of IUP or IUPK holders to engage local mining services companies and/or national mining service company. In addition, mining services companies have a similar obligation to prioritize both local contractors and human resources in supporting their businesses. A holder of an IUP or an IUPK is also prohibited from engaging its subsidiaries and/or affiliated mining services companies in its mining operational area, unless a permit has been obtained from the MEMR in respect of such engagement and when there are no similar mining services companies in the area or there was no interested nor qualified companies for the required mining services. The MEMR Regulation 11 of 2018 states that the holder of IUP or IUPK is prohibited from involving its subsidiary and/or affiliate which engage in mining service activities within the mining operation without prior approval from the Director General on behalf of the Minister. This prohibition affirms the relevant provision in the New Mining Law. In addition, Article 44 paragraph (1) of MEMR Regulation 11 of 2018 governs that the holders of an Production-Operation IUP or Production-Operation IUPK covers construction, coal mining, processing and/or refining, and transportation and sales activities. Article 55 paragraph (1) of MEMR Regulation 11 of 2018 allows the holder of a Production-Operation IUP and IUPK to hire mining services companies to conduct only overburden stripping.

In 2010, the Government issued four implementing regulations to implement the New Mining Law through the enactment of Government Regulation No. 22 of 2010 on Mining Areas ("GR 22"), Government Regulation No. 23 of 2010 on the Implementation of Mineral and Coal Mining Business Activities, as lastly amended by Government Regulation No. 8 of 2018 ("GR 23"), Government Regulation No. 55 of 2010 on Guidance and Supervision of Mining Business Activities ("GR 55"), and Government Regulation No. 78 of 2010 on Reclamation and Post-Mining ("GR 78"). The most recent implementing regulation of the New Mining Law, MEMR Regulation No. 34 of 2017 on Licensing in the Fields of Mineral and Coal Mining, was issued by the MEMR on May 5, 2017 and entered into force on May 9, 2017, which was later revoked by MEMR Regulation 11 of 2018. Article 45 (2) of Regulation 11 of 2018 sets out several new provisions, among others mandatory assignment from governor to MEMR for all IUP held by public companies.

GR 22 regulates the procedures to determine the WUPs, the WUPKs, and the WPRs. The determination of these mining areas lies on the sole discretion of the Government, and in respect of a WUPK, prior approval from the DPR is required. Under GR 23, foreign shareholders in a company holding an IUP and an IUPK must divest their shares gradually to Indonesian party(ies) in the order of priority set out in GR 23. Such foreign shareholders will have to begin divesting its shares to the Indonesian party(ies) at the fifth year of production and as a result, the Indonesian party(ies) will have no less than 20.0% shares by the end of the sixth year, a 30.0% shares by the end of the seventh year, a 37.0% stake by the end of the eighth year, an aggregate 44.0% shares by the end of the ninth year, and a 51.0% shares by the end of the tenth year. If the capital of the foreign-owned companies is increased, then the aggregate amount of shares ownership of such Indonesian party(ies) cannot be diluted and always subject to the aforementioned amount. The divestment requirements as set forth in GR 23 apply to IUP and/or IUPK granted both prior and subsequent to the issuance of such regulation. The divestment procedures are further regulated under MEMR Regulation No. 09 of 2017 on Procedures of Share Divestment and Determination Share Price in Mineral and Coal Mining Activities as amended by MEMR Regulation No. 43 of 2018.

The divestment to an Indonesian entity is to be made at the latest ninety calendar days after five years of production, in the following order of priority and procedure. Initially, the shares must be offered to the central government through MEMR, who will have ninety calendar days to evaluate and negotiate such offer, and must provide a written response accepting or declining such offer at the latest thirty calendar days following such 90 calendar days period of evaluation and negotiation. If the central government does not accept the offer or does not provide a response to such offer, the shares are to be offered to provincial or regent/municipal governments within seven calendar days, who will then have thirty calendar days to provide a written response. If those governmental entities are unwilling to accept an offer to purchase the shares lapsing such thirty calendar days, the shares must then be tendered to both state-owned and regional-owned enterprises, within seven days after the statement of no intent of the regent/municipal governments. The state-owned and regional-owned enterprises must then provide a response to such offer within thirty calendar days. If no state-owned or regional-owned enterprise declares their interest within such thirty days, the shares must be tendered to companies with share wholly owned by Indonesian investors within seven days after the statement of no intent of the regent/municipal government. These companies too are given thirty days to declare their interest.

Under GR 55, the supervision of licensed mining activities is generally conducted by the MEMR, governors, regents, or mayors. Those who fall under the scope of regulatory supervision are holders of an IUP, an IPR or IUPK. The supervision is conducted on, among others: technicality of the mining, marketing, finance, management of coal and mineral data, conservation of coal and mineral resources, health and safety of the worker and safety of the mining operation, post-mining activities, and development and utilization of the local community. GR 55 also regulates the supervision of mining activities and the supervision of: finances, mineral and coal processing data, conservation of mineral and coal, operational safety, environmental impacts, land reclamation, post-mining management, technical training of laborers, as well as a host of production data of the types, quality, and total amount of extracted minerals. Supervision will be carried out by mining inspectors, although the MEMR, governors, regents and mayors may also send authorized representatives into mining facilities in accordance with Article 37 of GR 55. Nevertheless, only locally appointed mining inspectors are authorized to recommend that the chief mining inspector temporarily suspend mining activities in part or entirely, or that certain mining activities permanently cease operations when a mining activity is considered dangerous to employees, public safety, or the environment.

Under GR 78, mining companies are obliged to carry out reclamation and post-mining related activities. Reclamation is required in both the exploration and production-operation stages. Prior to commencing each aforesaid stage, mining companies must prepare a reclamation plan. Holders of IUP Exploration and IUPK Exploration, that have finished conducting feasibility study, are required to submit an approval request on the reclamation plan and post-mining activities plan to relevant governmental institutions (the MEMR, governor, or regent/mayor). GR 78 also includes an obligation on the mining companies to place guarantee funds in a bank designated by the Government for the following matters: (i) reclamation in the exploration stage; (ii) reclamation in the production-operation stage; and (iii) post-mining activities.

A holder of an IUP/IUPK will be required to pay production royalties to the Government as stipulated in the Government Regulation No. 9 of 2012 on the Types and Tariffs of Non-State Tax Revenue Applicable in the Ministry of Energy and Natural Resources. Currently, a range of royalties apply with respect to different types of coal and mineral mining. Under the Mining Law, the holders of IUPK for operation production are required to pay 10.0% of its net profit from the mine, comprising 4.0% to be paid to the Government, and 6.0% being shared between the relevant provincial and regional governments in whose jurisdictions the mine is located.

Under the New Mining Law, coal and other minerals mined within Indonesia will be required to be processed and refined domestically. However, to date, the implementing regulations of the New Mining Law only set out the standard processing and refining of mineral products. The minimum standard of processing of coal products has not yet been set out in the implementing regulations of the New Mining Law. As of the date of this Offering Memorandum, the Mining Law provides that “processing and refinery” shall mean a process which increases the quality of minerals and/or coal and the utilization of and the extraction of associated minerals.

The Mining Law states that all concessions for coal and other minerals and metals currently in existence and issued under the previous mining regulations will continue to be valid until their expiry. As for KPs, such

licenses shall be adjusted in the form of IUPs. As for contract of work and coal contract of work, the terms of those contracts of work must be modified within one year following adoption of the Mining Law to bring them into conformity with the obligations of mining rights holders under the Mining Law. The Mining Law expressly states that the provisions of these existing contracts of work related to state revenue, including royalty and tax payments, will not be amended.

Regulatory Framework Regarding Extension of the Coal Cooperation Agreement

Adaro Indonesia's Coal Cooperation Agreement grants it the exclusive right to exploit coal resources within the granted concession area in South Kalimantan, Indonesia. Under Adaro Indonesia's Coal Cooperation Agreement, Adaro Indonesia's production period for coal mining activity has a term of 30 (thirty) years that will expire in October 2022 unless extended in accordance with the terms of the Coal Cooperation Agreement.

The New Mining Law and GR 23, as amended, provides that a coal cooperation agreement which has been signed prior to the enactment of the New Mining Law and GR 23, shall remain valid until the expiration of such agreement. A coal cooperation agreement holder is entitled to have a contracted mining area in accordance with the activity plan that has been approved by MEMR until the end period of such agreement as stipulated in Article 171 of Mining Law which consists of (a) the potential area and reserve / mining; and (b) area outside of the mining area for supporting the mining activity business.

Adaro Indonesia's Coal Cooperation Agreement provides that the continuation of its mining operation can be extended by the MEMR in the form of a Special Mining Business License for Production-Operation extension (*Izin Usaha Pertambangan Khusus Operasi Produksi perpanjangan* (IUPK OPP)), at most two times with a period of 10 (ten) years for each extension. The extension of a coal cooperation agreement is also regulated under GR 23. Under GR 23, a coal cooperation agreement that has not obtained an extension can be extended into an IUPK OPP, after the area of coal cooperation agreement has been determined to be WIUPK by the MEMR, as a continuation of operation without an auction process after the expiry of such agreement and to be conducted according to laws and regulations in mineral and coal mining.

In order to extend a coal cooperation agreement, GR 23 provides that a coal cooperation agreement holder must submit an application of extension to MEMR at the earliest 2 (two) years but no later than 6 (six) months before the coal cooperation agreement period ends. The application for IUPK OPP must fulfill the following requirements:

- administrative requirement, covering (i) application letter, (ii) composition of board of directors, (iii) shareholders' register, and (iv) domicile letter;
- technical requirements, covering (i) map and area coordinate borders, (ii) final report of production-operation, (iii) implementation report of environmental management, (iv) remaining reserves and resources, (v) work plan and financial budget, (vi) post-mining and reclamation plan, (vii) plan on facilities construction and supporting activities of production-operation, and (viii) the availability of mining and/or geology experts, with experience in the relevant field of at least three years;
- environmental requirements, covering (i) the statement of ability to comply with environmental laws and regulations; and (ii) approval on environmental documents in accordance with the environmental laws and regulations; and
- financial requirements, covering (i) audited financial statements for the last 3 (three) years, and (ii) payment evidence of dead rent and production royalty for the last 3 (three) years.

MEMR, in its decision to grant the IUPK OPP, shall consider the national interest and the potential reserves of coal.

MEMR may reject an application of IUPK OPP if, based on its evaluation, a coal cooperation agreement holder fails to demonstrate a good mining business performance.

Domestic Market Obligation

GR 23 also provides that the holders of a Production-Operation IUP and an IUPK must prioritize domestic needs for coal. The holder of Production-Operation IUPs and IUPKs may export their coal only after the domestic needs of coal have been fulfilled. Further details on the procedures of prioritization coal for domestic needs are regulated in a Ministerial regulation. Prior to the issuance of GR 23, MEMR issued MEMR Regulation No. 34 of 2009 on the Prioritization of Mineral and Coal Supply for Domestic Market, which was later revoked by MEMR Regulation No. 25 of 2018 concerning Mineral and Coal Mining Business Operations, as lastly amended by MEMR Regulation No. 11 of 2019 (“MEMR Regulation 25 of 2018”). In controlling the mineral and coal sales, MEMR requires producers of coal and minerals in Indonesia to allocate a certain portion of their production output to the domestic Indonesian market.

Article 85A of GR 23 states that in order to fulfill the needs of coal for domestic market, the Minister shall stipulate the selling price. According to Article 33 of MEMR Regulation 25/2018, the selling price shall follow Metal Benchmark Price (“HPM”) or Coal Benchmark Price (“HPB”), which will be set by the MEMR. Both prices are the lowest limit in the calculation of production fee payment.

Pursuant to Section 2 of the Decree of the MEMR No. 78 K/30/MEM/2019, the holders of PKP2B in Production-Operation Phase, Production-Operation IUP and Production-Operation IUPK shall fulfill the minimum sales of coal for domestic interests (domestic market obligations) in the amount of 25% of the total coal production plan in 2019 which has been approved by the minister or governor in accordance with their authority. The companies that do not fulfill the minimum sales percentage are subject to sanctions in form of a reduction of production levels in the next work program and budget. Further, a failure to comply with the selling price as stipulated in Article 33 of MEMR Regulation 25 of 2018 is subject to the administrative sanctions in the form of written warning, temporary suspension of part or all business activities and/or revocation of license under Article 40 of MEMR Regulation 25 of 2018.

See “Risk Factors — Risks Relating to Indonesia — The interpretation and implementation of legislation on regional governance in Indonesia is uncertain and may adversely affect our business, financial condition, results of operations and prospects.”

Mining Services Regulation

Mining services are regulated by the New Mining Law and the MEMR Regulation 11 of 2018. Based on MEMR Regulation 11 of 2018, a company intending to provide mining services (a “mining services company”) must first obtain a business license (*Izin Usaha Jasa Pertambangan*) from the MEMR or the governor, as applicable. These licenses are generally issued for a five year period and are thereafter extendable upon application, for a five years period per extension.

Mining services companies may be engaged or appointed to perform mining business activities for concession holders (comprising holders who were granted concessions under previous mining regulations and are IUP or IUPK holders under the New Mining Law). The New Mining Law imposes certain restrictions on concession holders and mining services companies. Mining services companies are required under the New Mining Law to give preference to the usage of local contractors and laborers.

The New Mining Law stipulates the obligation of IUP or IUPK holders to engage local mining services companies and/or national mining services companies. Should there are no services companies and/or national mining services companies, IUP or IUPK holders may engage other mining services companies which form is Indonesian legal entity. In addition, a mining services company has the obligation to prioritize both local contractors and human resources in supporting their activities.

A holder of an IUP or an IUPK is also prohibited from engaging its subsidiaries and/or affiliated mining services companies in its mining operational area, unless a permit has been obtained from the MEMR. The New Mining Law stipulates the type of mining services such contractors may perform, including:

- consultation, planning, implementation and equipment testing in the following sectors:
- general surveying;

- exploration;
- feasibility studies;
- mining construction;
- transportation;
- mining environmental;
- post-mining/reclamation; and/or
- workplace health and safety.
- consultation, planning and equipment testing in the following sectors:
 - mines; or
 - processing and purification.

On May 10, 2010, the DGM issued Regulation No. 376.K/30/DJB/2010 of 2010, which requires an IUP holder or IUPK holder to obtain MEMR approval in order to engage their subsidiaries and/or affiliates to provide it with mining services. In issuing Regulation 376/2010, the DGM, on behalf of the MEMR, provided guidelines for holders of a Mining License and a Special Mining License as to how their subsidiaries and/or affiliates should provide such mining services. Under Regulation 376/2010, a subsidiary or an affiliate is defined as a business entity directly owned by the holder of a Mining License or a Special Mining License. Direct ownership means:

- the IUP or IUPK holder is a direct shareholder owning at least 20% of the shares in its subsidiary or affiliate;
- the IUP or IUPK holder is a direct shareholder and owns more than 50% of the voting rights in the subsidiary or affiliate, based on an agreement to directly control the financial policy and operations of such subsidiary or affiliate; or
- the IUP or IUPK holder has the authority to appoint and dismiss the financial director and operational director (or their equivalent) of its subsidiary or affiliate.

Regulation 376/2010 provides that the appointment of a subsidiary or an affiliate to provide mining services may be made after the IUP or IUPK holder, as applicable, has carried out the second open tender process (which includes making first and second announcement of the tender process in an Indonesian newspaper) and has failed to find a mining services provider. Such appointment is subject to the approval of the MEMR and the DGM.

We expect that we will be able to comply with this regulation without any material adverse effect on us and our mining operations. See “Risk Factors — Risks Relating to Indonesia — The interpretation and implementation of legislation on regional governance in Indonesia is uncertain and may adversely affect our business, financial condition, results of operations and prospects.”

Coal Sales Price Controls

On January 11, 2017, MEMR Regulation No. 7/2017 as lastly amended by MEMR Regulation No. 19/2018, stipulates that the coal price arrangement between the IUP, IUPK, or PKP2B holders and coal purchaser (including their affiliated parties) should be no less than the Coal Benchmark Price (*Harga Patokan Batubara*) that is determined each month by the Minister of Energy and Mineral Resources (“Government Benchmark Price”). The Government Benchmark Price will be determined based on market mechanisms and/or

in accordance with general pricing within the international market. Further, the pricing of Government Benchmark Price may be calculated in Rupiah or in US\$. Should the price is calculated in US\$, then the equalization of Rupiah and US\$ shall be made in accordance with the median currency exchange rate determined by Bank Indonesia on the date of or during the period agreed between seller and buyer of coal.

IUP, IUPK or PKP2B holders are allowed to sell the following type of coal below the Government Benchmark Price according to the formula determined by the MEMR: fine coal, rejected coal, and coal with certain impurities, provided that such sale is made for the following purpose: (i) coal which utilized by the license holder for its coal mining activity, (ii) coal utilized by the license holder to increase the added value of coal from mine-mouth mining activities, and (iii) coal utilized for development of undeveloped area around the mining area.

Pursuant to Article 8A of MEMR Regulation No. 7 of 2017, as lastly amended by MEMR Regulation No. 19 of 2018, MEMR has the authority to determine coal sales price for domestic needs in accordance with the quality of coal. The sales price shall be determined with due regard the public interest. The price of coal supplied to, particularly the power industry for public interest is capped to US\$70/MT on FOB for the following coal type: 6,322 GAR, 8% total moisture, 0,8% total sulfur and 15% ash, according to MEMR Regulation 1395 K/30/MEM/2018 as amended several times lastly by MEMR Regulation 1925 K /30/MEM/2018. The price for coal with different specification shall be calculated pursuant to the formula determined in the regulation in question.

Regional Government Law

Indonesia is divided into provinces which are further subdivided into regencies and municipalities. The regencies and municipalities within a province are autonomous in most of their activities and, therefore, are not subservient to the province.

On October 2, 2014, the Government enacted Law No. 23 of 2014 as lastly amended by Law No. 9 of 2015 concerning the Regional Government (“Law 23”) which has revoked the previous Law No. 32 of 2004 concerning the Regional Government (“Law 32”), which substantially changed the legal and regulatory framework of the mining industry in Indonesia. Law 23 divides the governmental affairs into (i) absolute governmental affairs; (ii) concurrent governmental affairs; and (iii) general governmental affairs. Mining business activities are categorized as concurrent governmental affairs, which require the distribution of authority between the Government and other regional governments when discharging their governmental affairs. The distribution of authority will mainly be assessed based on the location, the customer, the impact and the efficiency of the natural resources utilization. To date, the Government has issued a number of amendments towards Law 23 including Government Regulation as Substitute of Law No. 2 of 2014, Law No. 2 of 2015 and Law No. 9 of 2015 as the second amendment to the Law 23. Although the Law 32 has been revoked, the transitional provision under Law 23 stipulates that the implementing regulations from Law 32 shall still apply as long as it does not contradict with Law 23.

Forestry Regulation

Law No. 41 of 1999 on Forestry, as amended by Law No. 19 of 2004, which ratifies Government Regulation in Lieu of Law No. 1 of 2004 (“Forestry Law”) provides that open-pit mining operations cannot be conducted within protected forests. Notwithstanding this general prohibition, a number of licenses and contracts for open-pit mining in forest areas that existed prior to the enactment of Forestry Law remain valid until their expiration. Significant areas of Indonesia have been classified as protected forests. Based on the Forestry Law, the use of forest areas for mining purposes is required to be conducted based on a Borrow-Use Permit (*Izin Pinjam Pakai*) issued by the Minister of Forestry by considering the area limitation, period of time, and environmental sustainability.

Pursuant to Forestry Law, the use of forests for mining purposes must be conducted with a Borrow-Use License issued by the Minister of Forestry. Further, under Regulation of the Minister of Forestry No. P.27/Menlhk/Setjen/Kum.1/7/2018 regarding the Guidelines on Borrow and Use of Forest Area as amended by the Minister of Environment and Forestry Regulation No.P.7/ Menlhk/Setjen/Kum.1/2/2019 (“Regulation 27 of 2018”), a company applying for a Borrow-Use License may deliver non-forest land as compensation or pay

compensation for the use of forest area in the form of a non-tax state income. It also stipulates that a Borrow-Use License is valid for the same period as the applicable operational license, such as the mining licenses (IUP or IUPK). Pursuant to the Forestry Law, to make any changes on the utilization of the forest, due to its strategic value, the Minister of Forestry must obtain the approval of the DPR.

On February 1, 2010, the Government issued Government Regulation No. 24 of 2010 on Use of Forest Areas, as lastly amended by Government Regulation No. 105 of 2015 (“Government Regulation 24”). Government Regulation 24 only provides general provisions on borrow-use permits. It introduces several new provisions in relation to borrow-use permits, including the introduction of administrative and technical requirements for borrow-use permit applications, borrow-use permit requirements, and the borrow-use permit application process in which the applicant is required to pay Government non-tax revenue (*Penerimaan Negara Bukan Pajak* or “PNBP”), conduct the rehabilitation of the planting of water shed, conduct re-vegetation over the compensated land, conduct the forest protection and other obligations determined by the Minister of Forestry.

Under Government Regulation 24, a borrow-use permit will be granted with the same term as the relevant industry permit or license issued by the authorized agency. In relation to the mining industry, any grant of a borrow-use permit made after the issuance of Government Regulation 24 will be for the period of the validity of the relevant business license. Pursuant to the Decree of the Minister of Forestry No. P.04/Menhut-II/2011 dated January 14, 2011 on Guidelines for Forest Reclamation, a mining and energy company which is granted a borrow-use permit must prepare forest reclamation plan which consist of a five years plan and yearly plan. Such plan shall be approved by the relevant authority (MEMR, governor, or regent/mayor) and shall be made in accordance with the location which being damaged by the mining activities. Further, the mining company shall perform the reclamation in accordance with the approved plan, within the determined period, and at its own expense.

Pursuant to Article 69 (2) jo. (3) of the Decree of the Minister of Forestry No. P.04/Menhut-II/2011, an assessment of the reclamation for the central level is conducted by a team coordinated by the Directorate General Watershed Management and Social Forestry (*Bina Pengelolaan Daerah Aliran Sungai dan Perhutanan Sosial*), while assessment of the reclamation for the regional level is conducted by a team coordinated by Provincial Technical Office (*Dinas Teknis Provinsi*) that handles forestry. The assessment is carried out every five years or a year before the expiration of the borrow-use permits.

Meanwhile, Article 76 jo 77 (1) of the Decree of the Minister of Forestry No. P.04/Menhut-II/2011 states that the mining company is required to deliver quarterly reports and annual reports on the progress of the reclamation activities to Director General Watershed Management and Social Forestry with copy to Director General of Forestry Planology (*Direktur Jenderal Planologi Kehutanan*), Director General of Mineral Coal and Geothermal (*Direktur Jenderal Mineral Batubara dan Panas Bumi*), Provincial Technical Office (*Dinas Teknis Provinsi*) that handles forestry, Regency/City Technical Office (*Dinas Teknis Kabupaten/Kota*) that handles forestry.

Environmental Regulation

Environmental protection in Indonesia is governed by various laws, regulations and decrees, including:

- Law No. 32 of 2009 on Environmental Protection and Management (“Environmental Law”) which was enacted on October 3, 2009 to replace Law No. 23 of 1997 on Environmental Management;
- Government Regulation No. 27 of 2012 on Environmental Permit (“GR 27/2012”);
- Government Regulation No. 101 of 2014 on Management of Hazardous Waste (“GR 101/2014”)
- Minister of Environment and Forestry Regulation No. P.38 /MENLHK/SETJEN/KUM 1/7/2019 on Business and/or Action Plans which must be completed with Environmental Impact Analysis (“Regulation 38/2019”);
- MEMR Regulation 11 of 2018; and
- Minister of Energy and Mineral Resources Regulation No. 26 of 2018 on Implementation of Good Mining Principle and Supervisory of Mineral and Coal Mining (“Regulation 26/2018”).

The Environmental Law, which was enacted to replace the previous Law No. 23 of 1997, introduces several materials provisions including:

- the Environmental Permit (*Izin Lingkungan*) is now mandatory for a company which is required to obtain an AMDAL or a UKL/UPL. The environmental permit would be a prerequisite to obtain the relevant business licenses and if the environmental permit is revoked, the business license would terminate as well. The Environmental Law requires all existing environmental management permits to be integrated into environmental permit within one year as of the enactment of Environmental Law;
- an environmental audit is now required for (i) businesses that have obtained relevant business licenses but have not prepared an AMDAL in accordance with Art. 121 paragraph (1) of Law No. 32/2009 (ii) businesses in high-risk sectors or (iii) companies that do not appear to comply with environmental laws and regulations;
- all holders of environmental permit must provide an environmental guarantee fund to be placed in designated state owned-banks in order to ensure recovery of environmental functions;
- any business which potentially has important impact to the environment must conduct environmental risk analysis;
- all waste disposals require licensing and may only be conducted in specified locations determined by the Minister of Environment and Forestry;
- the imposition of remedial and preventative measures and sanctions (such as the obligation to rehabilitate tailings areas, the imposition of substantial criminal penalties and fines and the cancelation of approvals) to remedy or prevent pollution caused by operations; and
- the sanctions imposed range from one to 15 years of imprisonment applicable to any person who caused environmental pollution or environmental damage and/or fines ranging from Rp 500 million to Rp 15 billion. The imprisonment and the amount of fine will be increased by one-third if the criminal offense is conducted on behalf of a company. A monetary penalty may be imposed in lieu of performance of an obligation to rehabilitate damaged areas.

These laws generally provide, among others, that mining companies must have the facilities and bear the costs and expenses of reclamation and rehabilitation of concession areas, and shall prevent and minimize environmental pollution and destruction resulting from mining activities. Mining companies whose operations have a significant environmental or social impact must create and maintain an AMDAL document, which consists of the following documents:

- an analysis known as Terms of Reference on Environmental Impact Analysis (*Kerangka Acuan Analisis Dampak Lingkungan* or KA-ANDAL);
- an environmental impact analysis (*Analisis Dampak Lingkungan* or ANDAL);
- an environmental management plan (*Rencana Pengelolaan Lingkungan* or RKL); and
- an environmental monitoring plan (*Rencana Pemantauan Lingkungan* or RPL).

GR 27/2012 stipulates, among other matters, that mining companies whose operations have a significant environmental or social impact must make and maintain an Environmental Impact Assessment (*Analisis Mengenai Dampak Lingkungan* "AMDAL") document which consists of KA-ANDAL, ANDAL, RKL and RPL. Under Regulation 38/2019, a mining company with a total licensed area equal to or wider than 200 hectares or with the total open pit mining areas equal to or wider than 50 hectares must have an AMDAL document.

Regulation 26/2018 stipulates that the implementation of management and monitoring of the mining environment shall be in accordance with the environmental document which consists of AMDAL documents or environmental management and monitoring efforts, or a statement letter of environmental management.

Under Regulation of the MEMR No. 1829 K/30/MEM/2018 TAHUN 2018 on Implementation of Good Mining Practices, IUP and IUPK holders are required to prepare reclamation plans for exploration phase and for production-operation phase, as relevant, for period of five years and mining closure plan for their production-operation phase, which shall be submitted along with the application of IUP Production-Operation or IUPK Production-Operation to the relevant authority. Mining companies are also required to provide a reclamation guarantee in the form of either a joint account, time deposit held in the name of the relevant government authority, bank guarantee, insurance bond or, where the mining company has a paid up capital of US\$50,000,000 or more, by way of an accounting reserve. Sanctions for non-compliance consist of written warnings, suspension of all or part of the mining activities and/or revocation of the mining license. On top of the reclamation guarantee, mining companies is also required to provide mining closure guarantee, which amount will be determined by DGM or governor. Such guarantee shall be deposited in government bank held in the name of relevant government authority and the respective mining company.

The activities of storing and collecting used lubricant oil is further regulated by the Decree of the Head of Regional Environmental Impact Controlling Agency (*Badan Pengendalian Dampak Lingkungan Daerah*) No. 255 of 1996 concerning the Procedure on the Storing and Collecting of Used Lubricant Oil (“Decree 255”) which provides, among other things, that an entity which collects used oil for further use or processing must comply with certain requirements, as regulated by Decree 255, including obtaining a license, meeting certain specifications with regard to the buildings where used oil is to be stored, setting up a standard procedure on collection and distribution of used oil and submitting quarterly periodic reports with regard to these activities.

Waste Water Disposal

Government Regulation 82 of 2001 concerning Water Quality Management and Water Pollution Control (“Government Regulation 82”) requires responsible parties, including mining companies, to submit reports regarding their disposal of waste water detailing their compliance with the relevant regulations. Such reports are to be submitted to the relevant mayor or regent, with a copy provided to the Minister of Environment and Forestry (previously the Minister of Environmental Affairs), on a quarterly basis.

The Decision of the Minister of Environment and Forestry No. 113 of 2003 concerning Waste Water Standard Quality for Coal Mining Business and/or Activities (“Decision 113”) further regulates mining companies’ treatment of waste water. Decision 113 obliges mining companies to (i) process their waste water from mining activities and processing/washing activities in accordance with mandated quality standards stipulated in Decision 113; (ii) manage water that is affected by mining activities by way of sedimentation pools; and (iii) examine the location for the point of compliance of the waste water from mining activities where the waste water from the sedimentation pools and/or the waste water treatment facilities is discharged into the surface water. Under Decision 113, mining companies must comply with requirements stipulated in their respective licenses regarding disposal of waste water and submit an analysis of the waste water and daily flow rate to the regent or mayor, with copies to the governor and the Minister of Environment and Forestry on a quarterly basis.

Hazardous and Toxic Substances

Government Regulation 101 of 2014 on Management of Hazardous and Toxic Waste Materials (Pengelolaan Limbah Bahan Berbahaya dan Beracun) and Government Regulation No. 74 of 2001 regarding Management of Hazardous or Toxic Materials (Pengelolaan Bahan Berbahaya dan Beracun), regulates the management of certain stipulated materials and waste. Flammable, poisonous or infectious waste from mining operations is subject to these regulations unless it can be proven scientifically by the applicant that it falls outside the categories set forth in such regulations. These regulations require a company using the specified materials, or which produces waste which is specified in the regulations, to obtain a license in order to store, collect, utilize, process and accumulate such waste. This license may be revoked and the license holder may be required to cease operations in the event of violation.

Other Regulations Related to Mining Operations

Other relevant regulations applicable to our mining operations include regulations regarding the use of groundwater and technical guidelines to control air pollution from immovable sources. Companies that propose to explore, drill and acquire groundwater for their operations are required to comply with the provisions of Decree of MEMR No. 1451K/10/MEM/2000, which includes, among other things, requirements to obtain licenses to explore, drill and acquire groundwater. Failure to comply can lead to the suspension or revocation of the relevant licenses or permits. Our operations are also subject to Government regulations concerning following:

- usage and operation of a harbor for internal use;
- power generation for internal use;
- radio concessions for telecommunications for internal use;
- storage and usage of explosive materials; and
- ground water for household use.

Corporate Social and Environmental Responsibility

In respect of limited liability companies, Law No. 40 of 2007 and Government Regulation No. 47 of 2012 on Corporate Social and Environmental Responsibility set out an additional obligation imposed on companies operating in the natural resources industry, including coal mining companies. Such companies have to undertake corporate, social and environmental responsibility. The purpose of this obligation is to create a sustainable relationship with the environment, and to enhance the norms, values and culture of the local community. Such obligation is required to be budgeted and calculated as an expense of the company and it must be implemented in reasonable measures. Any non-compliance will be sanctioned in accordance with applicable laws. Measures that satisfy this obligation will be stipulated in a Government Regulation which is yet to be issued. The New Mining Law also requires the holders of an IUP or an IUPK to organize community development programs.

Indonesian Regulations on Placement of Foreign Exchange Export Proceeds Deriving From Natural Resources

On January 10, 2019, the Government of Indonesia enacted Government Regulation No. 1 of 2019 on Foreign Exchange Export Proceeds from Natural Resources Business, Processing and/or Management Activities (“GR 1/2019”). Furthermore, on January 18, 2019, Bank Indonesia issued Bank Indonesia Regulation No. 21/3/PBI/2019 on the Receipt of Foreign Exchange Export Proceeds from Natural Resources Business, Processing and/or Management Activities (“PBI 21/3/2019”).

GR 1/2019 and PBI 21/3/2019 require that export proceeds derived from transactions involving natural resources (*Devisa Hasil Ekspor dari Barang Ekspor Sumber Daya Alam* or “DHE SDA”) are (i) deposited in a special account maintained in a Foreign Exchange Bank in Indonesia (as defined in GR 1/2019); and (ii) utilized only for specific purposes, which are for the payments of: (a) export duties and other levies that apply to exports; (b) loan repayments; (c) importation activities; (d) profits or dividends; and/or (e) other purposes as regulated under Article 8 of Law No. 25 of 2007 on Investment. The types of exported goods which fall under the scope of GR 1/2019 and PBI 21/3/2019 are set out and elaborated under Decree of the Minister of Finance No. 1523/KM.4/2019 on the Determination of Natural Resources Export Goods with the Obligation to Deposit Foreign Exchange Export Proceeds into the Financial System of Indonesia. The utilization of DHE SDA for the purposes aforementioned must be accompanied by supporting documents. In the event that an exporter makes the payments as described above through an escrow account, such exporter must open an escrow account in a Foreign Exchange Bank in Indonesia (as defined in GR 1/2019), if such account has not existed, or move such account onshore, if such account already exists. Under GR 1/2019, an “escrow account” is defined as an account opened to collect particular funds from which a withdrawal can only be made based on special requirements in accordance with a written agreement between a depositor and a party with an interest over such escrow account. The supervision of such escrow accounts is conducted by the OJK.

On July 1, 2019, the Minister of Finance of Indonesia enacted Regulation of the Minister of Finance Number 98/PMK.04/2019 of 2019 on Tariffs for Administrative Sanctions in the Form of Fines and Procedures for the Imposition, Collection and Payment of Administrative Sanctions in the Form of Fines for Violations of the Provisions on Foreign Exchange Export Proceeds from Natural Resources Business, Processing and/or Management Activities (“PMK 98/2019”). PMK 98/2019 sets out the following administrative sanctions: (i) in the case that an exporter fails to deposit DHE SDA in a special account maintained in a Foreign Exchange Bank in Indonesia (as defined in PMK 98/2019), such an exporter will be imposed with fines in the amount of 0.5% of the value of the DHE SDA which has not been deposited in such special account; (ii) in the case that an Exporter utilizes the DHE SDA deposited in the special account for purposes other than for the payments of: (a) export duties and other levies that apply to exports; (b) loan repayments; (c) importation activities; (d) profits or dividends; and/or (e) other purposes as regulated under Article 8 of Law No. 25 of 2007 on Investment, such an exporter will be imposed with fines in the amount of 0.25% of the value of DHE SDA utilized for such other purposes; and (iii) for an exporter who fails to set up an escrow account (which is an account used to make the payments described previously in point (ii)) or fails to move such account onshore, to a Foreign Exchange Bank in Indonesia (as defined in PMK 98/2019), such an exporter will be imposed with an administrative sanction in the form of a postponement of provision of export customs services.

Foreign Investment Limitations

Direct foreign investments in Indonesia are generally governed by Law No. 25 of 2007 dated April 26, 2007 (the “Investment Law”), and its implementing regulations. All matters relating to direct investments are under the supervision of the BKPM. BKPM has issued implementing regulations for the Investment Law pertaining to guidelines and procedures for filing applications for foreign investment and the approval of foreign investment (“Guidelines on Foreign Investment”). Not all foreign investment, however, is governed by the Investment Law or is under the authority of BKPM. A number of sectors, including forestry, mining, and oil and gas, are wholly or partly subject to separate regulatory regimes.

An important feature of the Investment Law is the Government’s guarantee that it will not nationalize a foreign investment or revoke rights to control a foreign investment, except where it is declared by law. In case the Government nationalizes or revokes the foreign investment, it must pay compensation in an amount determined in accordance with the market price of the investment. This guaranty is accompanied by assurances that the foreign investor will have the authority to appoint the management of the foreign investment company and the right to transfer and repatriate in foreign currency, profit, bank interest, dividend and other incomes.

Except for certain sectors specifically determined by Presidential Regulation No. 44 of 2016 regarding list of Negative Investment most business sectors including mining, are ideally open to foreign direct investment with certain limitations.

In Indonesia, a foreign investor has to undertake its investment through an Indonesian legal entity under the Investment Law in the form of a limited liability company (“PMA”). PMAs established to undertake mining activities require foreign investment licenses issued by BKPM in coordination with the DGM.

Shipping Regulation

The Cabotage Principle

Shipping activities in Indonesia are now governed by Law No. 17 of 2008 regarding Shipping (“Shipping Law”) which replaced the previous Law No. 21 of 1992 regarding Shipping. The Shipping Law covers, among other matters, the implementation of the Cabotage Principle, minimum navigation requirements, good port governance, port tariffs and port status (e.g. designation of ports for international seaborne trade), ship registration, standard requirements for crew members and maritime management and environmental safety requirements.

The Cabotage Principle originates from the conception that domestic marine transport activities are a part of and a strategic force in maintaining state sovereignty in Indonesia. The primary goal of the Cabotage Principle

is for Indonesian and foreign shipping entrepreneurs who register their vessels in Indonesia to invest and conduct business in Indonesia by partnering with local operators and to utilize insurance and banking services to create employment in Indonesia.

One of the effects of the Cabotage Principle is the structuring of transportation of goods and cargos between domestic seaports served entirely by Indonesian-flagged vessels. As of January 1, 2010, the national shipping business has been successful in implementing the Cabotage Principle and providing for a fleet of Indonesian-flagged vessels for the transportation of 14 commodities in accordance with Minister of Transportation Regulation No. KM 71 of 2005 on Inter-Seaport Transport of Goods/Freights Inter-Domestic Sea Port ("MOT 71/2005"), namely oil and gas, general cargo, coal, timber, rice, crude palm oil, fertilizer, cement, minerals, grains, liquid and chemical cargo, agricultural products, as well as fresh product. During 2010, Indonesian National Shipowners' Association worked to provide a fleet of Indonesian-flagged vessels to support offshore activities. MOT 71/2005 was revoked and replaced by Minister of Transportation Regulation No. KM 22 of 2010 ("MOT 22/2010") as amended by MOT No. 73 of 2010. Since the enactment of MOT 22/2010 in conjunction with the MOT No. 73 of 2010, all domestic transportation of commodities should be served by the Indonesian-flagged vessels.

Implementation of Cabotage Principle

The Shipping Law covers, among other things, the implementation of "Cabotage principle" (with the objective to mandate Indonesian and foreign shipping companies who register their vessels in Indonesia, for the purpose of investing and conducting business in Indonesia by partnering with local operators and utilizing insurance and banking services in Indonesia), minimum navigation requirements, good port governance, port tariffs and port status (e.g. designation of ports for international seaborne trade), ship registration, standard requirements for crew members, maritime management and environmental safety requirements.

Minister of Transportation Regulation No. KM. 22 of 2010 as amended by Minister of Transportation No. PM. 73 of 2010 (MOT 22/2010) on Goods/Cargo Transportation Inter-Domestic Sea Ports

MOT 22/2010 regulates that the goods transportation inter-domestic sea ports should be conducted by national shipping companies using Indonesian flagged vessels and employing Indonesian nationality crew. Under Article 2 of MOT 22/2010, if no Indonesian-flagged vessels are available to transport goods between domestic sea ports, the government has provided an exemption to use foreign vessels. However, the operation of foreign vessels is limited for those foreign vessels which already have contracts before May 7, 2008, and still carry out activities until May 7, 2011.

Government Regulation No. 20 of 2010 on Water Transportation

The Shipping Law's implementing regulation, Government Regulation No. 20 of 2010 ("GR 20/2010") on Water Transportation, was issued in February 1, 2010. GR 20/2010 implements the water transportation by carried Cabotage Principle consistently for marine transport companies to host in their own country. GR 20/2010 also states that sea transportation in the domestic area should be conducted by national shipping companies using Indonesian-flagged vessels and employing Indonesian nationality crew. The GR 20/2010 was issued to (i) implement the Cabotage Principle for protecting the sovereignty of national archipelago implementation and (ii) provide opportunities for domestic sea transportation to gain market share.

Government Regulation No. 22 of 2011 on the Amendment to GR 20/2010 on Water Transportation ("GR 22/2011")

GR 22/2011 was issued on April 4, 2011 to allow certain types of foreign vessels to operate in Indonesia as long as Indonesian flagged vessels are not or not sufficiently available, foreign vessels do not carry passengers and/or goods, and foreign vessels have obtained approval from the MOT. The designated activities include:

- oil and gas survey;
- drilling;
- offshore construction;

- offshore operational support (including anchor handling tug supply vessel bigger than 5,000 BHP with dynamic position (DP2/DP3), platform supply vessels (PSV) and diving support vessels (DSV));
- dredging; and
- salvage and underwater works.

Although this regulation is applicable beginning April 4, 2011, the terms and conditions for granting the operation licenses of foreign-flagged vessels is regulated by the Minister of Transportation.

Minister of Trade Regulation No. 82 of 2017 as amended by Minister of Trade Regulation No 48 of 2018 and Minister of Trade Regulation No. 80 of 2018 on The Use of Indonesian Vessel and Insurance For Export and Import of Certain Goods

The Minister of Trade issued Minister of Trade Regulation No. 82 of 2017 on The Use of Indonesian Vessel and Insurance for Export and Import of Certain Goods which has been amended twice the year afterwards through Minister of Trade Regulation No 48 of 2018 and Minister of Trade Regulation No. 80 of 2018, due to some practical challenges.

This regulation stipulates that starting May 1, 2020, the coal exports must be shipped using vessels owned by Indonesian vessel companies. Also, the coal exports must be insured using insurance provided by the Indonesian insurance companies which has taken into effect since February 1, 2019. Violation of this requirement may be subject to sanctions in the form of reprimand, permit suspension or permit revocation. The Trade Ministry has subsequently clarified that foreign buyers will have to comply by buying Indonesian insurance, although the sale is on FOB basis (not CIF basis).

Presidential Instruction No. 5 of 2005 on the Empowerment of the National Shipping Industry

The President of Indonesia issued Presidential Instruction No. 5 of 2005 on The Empowerment of The National Shipping Industry (the “Presidential Instruction 5/2005”) to thirteen ministers, as well as governors, regents and mayors in Indonesia in March 28, 2005.

These government officials were instructed to implement the Cabotage Principle (which prohibits foreign-flagged vessels from providing domestic shipping services within Indonesia) and to formulate policies in accordance with the Presidential Instruction 5/2005, in order to foster the development of the shipping industry in Indonesia. The key proposals contained in the Presidential Instruction included (a) fully implementing the Cabotage Principle, allowing domestic seaborne transportation to be carried out by Indonesian-flagged vessels operated by Indonesian shipping companies; (b) encouraging banks to be actively involved in the development of the national shipping industry and developing non-bank financial institutions to provide financing for national shipping companies; (c) expediting the ratification of the 1993 International Convention on Maritime Liens and Mortgages and preparing a draft law on maritime liens and mortgages and expediting the ratification of the 1999 International Convention on Arrest of Ships and preparing a draft law on arrest of ships in accordance with national practices; (d) developing a national shipbuilding industry through various incentives; and (e) encouraging municipal governments and the private sector to develop training and education centers for seamen which comply with IMO standards.

Ratification of 1993 International Convention on Maritime Liens and Mortgages

Pursuant to Presidential Regulation No. 44 of 2005 dated July 8, 2005, the Republic of Indonesia ratified the 1993 International Convention on Maritime Liens and Mortgages. The Ministry of Communication has submitted to the Ministry of Law and Human Rights a draft of a new law concerning maritime liens and ship mortgages to amend the relevant provisions of Indonesia’s domestic laws following the ratification of the Convention by the Republic of Indonesia but there is currently no timeframe for the promulgation of the new law.

Foreign Investment in Indonesian Shipping Industry

The Government periodically issues the Negative List of Investments with the latest President Regulation No. 44 of 2016 on List of Business Fields Closed to Investment and Business Fields Open, With Conditions, to Investment (commonly referred to in Indonesian as the “DNI”). The DNI lists those areas in which foreign and domestic investments are prohibited or restricted and, in principle, any area not listed in the DNI is open for foreign and domestic investments. The current DNI provides that “*Pelayaran Rakyat*” (or “Small-Scale Shipping Industries” such as companies engaged in cabotage using traditional local vessels) are closed for foreign investments. Other shipping companies are, generally, open for foreign investments. Pursuant to the current DNI, foreigners may not own more than 49% of a foreign investment in shipping related business, among others: (i) sea transportation (regional or international), (ii) international sea transportation for passenger (CPC 7211), and (iii) international sea transportation for goods (CPC 7212), save for ASEAN investors who may own up to 70% for point (ii) and (iii).

Minister of Transportation Regulation No. KM. 26 of 2006 on Simplification of the System and Procedures For Procurement of Ships and The Use/Replacement of Ship Flag

On May 30, 2006, the Minister of Transportation issued Regulation No. KM.26 of 2006 on Simplification of System and Procedures for Procurement of Vessels and Use/Change of Vessel Flag (“MOT 26/2006”). MoT 26/2006 revokes Minister of Transportation Decree No. KM.14 of 1996 on Simplification of Procedures for Procurement and Registration of Vessels as subsequently amended. Pursuant to MOT 26/2006, vessels which may be registered under Indonesian flag are those (i) having a volume of GT 7 or more and (ii) whose shares are owned by Indonesian nationals or legal entities. The application for registration may be made to the Directorate General of Sea Communication through Online Single Submission (“OSS”) as regulated under MOT Regulation No. PM 89 of 2018 on Norms, Standards, Procedures and Criteria for Business Licenses that are Electronically Integrated in the Field of Sea Transportation (“MOT 89/2018”).

Safety and Security Requirements under Indonesian Law

Any seagoing vessel operating within Indonesian waters shall be subject to Indonesian safety regulations. Pursuant to Article 117 of the Shipping Law the marine safety and security is a fulfilment of conditions of ship sea-worthiness and navigation. The sea-worthiness conditions consisting of (i) vessel safety; (ii) prevention of pollution from vessel; (iii) vessel manning; (iv) vessel load line and loading; (v) crew prosperity and passengers’ health; (vi) vessel nationality; (vii) management of safety and prevention of pollution from ships; and (viii) management of ships’ security. While the navigation conditions (i) vessels navigation aid means; (ii) vessel telecommunications; (iii) hydrograph and meteorology; (iv) lanes and crossings; (v) dredging and reclamation; (vi) scouting; (vii) handling of vessel bodies and (viii) salvage and underwater works.

In connection with the enforcement of safety and maintenance requirements, Indonesian marine inspectors are authorized to carry out the necessary surveys or inspections on board vessels, including the following:

- initial surveys are carried out for a new vessel built at a shipyard or for the reflagging of a foreign-flagged vessel to an Indonesian-flagged vessel;
- annual surveys;
- renewal surveys are conducted once every five years;
- interim surveys are conducted annually to every five years;
- outside the regular surveys, there are on the spot inspections; and
- surveys due to vessel damage or repair.

Indonesia is a signatory to numerous international Conventions including the International Convention for the Prevention of Pollution from Ships (“MARPOL”) and the International Convention for the Safety for Life at Sea (“SOLAS”). The requirements set out in the relevant international Conventions are also applicable to seagoing vessels operating within Indonesian waters.

Environmental Regulation relating to Shipping Industry

Pursuant to the Shipping Law, the Government shall carry out the protection of the maritime environment, through the prevention and mitigation of pollution arising from the vessel's operation.

The obligation of the owner or operator of the vessel to preserve the marine environment is further regulated by Government Regulation No. 19 of 1999 concerning Sea Damages and Pollution Control ("GR 19/1999"), Government Regulation No. 21 of 2010 concerning the Protection of Marine Environment ("GR 21/2010"), Regulation of the Minister of Transportation No. KM 29 of 2014 concerning Pollution Prevention of Marine Environment ("MOT 29/2014"), and Regulation of Minister of Transportation No. 58 of 2013 regarding the preservation of pollution in the water and the port. Aside from the above, several international treaties/conventions on pollution have also been ratified by the Presidential Decree number, the Presidential Decree number 46 of 1986 concerning Ratification on International Convention for Prevention of Pollution from Ship, 1973, including its Protocol; and the Presidential Regulation number 29 of 2012 concerning Ratification of Annex III, Annex IV, Annex V and Annex VI of the International Convention for the Prevention of Pollution From Ships, 1973 and the Protocol of 1973 relating thereto.

GR 19/1999 requires any party responsible to the business and/or activities (i) that may cause sea pollution must conduct mitigation to the sea pollution occurrence; and (ii) that dump their waste to the sea to comply with the requirements concerning the sea water/liquid waste/emission quality standard. These parties will be obliged to bear the compensation for the mitigation of the sea pollution and/or damages as well as the remedial costs, if their business/activities cause sea pollution and/or damages.

MOT 29/2014 regulates that to meet the requirements of pollution prevention from operation of the vessel and pollution prevention originated from hazardous goods and materials on the vessel, the owner or the operator of the vessel must submit an application for examination and inspection to be conducted by MOT. And after such examination and inspection, the Director General of Sea Transportation will issue the certificate of pollution prevention. Under GR 21/2010, the owner or operator of the vessel is responsible to provide the costs incurred to handle the prevention and damages arise from the environmental pollution sourced from its vessel. The owner and the operator of the vessel are also required to insure the obligation to provide aforementioned costs. The owner and the operator of the vessel which transport any pollutant material shall be responsible to compensate the environmental damages and recovery caused by its vessel.

Under GR 21/2010, vessels are prohibited to dispose waste and any other materials originated from the operation of the vessels to the waters. Such waste must be stored in the vessel and transferred to the storage facility in the port or designated terminal. Other regulations, including Government Regulation No. 101 of 2014 on the Management of Hazardous and Toxic Materials and MOT 29/2014 relating to the management of certain materials and waste must also be observed. In general, hazardous and toxic waste is subject to these regulations unless the company can prove scientifically that it falls outside the categories set forth in such regulation. These regulations require a company that uses such materials or produces waste to obtain a license from the Minister of Environment and Forestry or other environmental governmental institutions in order to store, collect, utilize, process and/or stockpile such hazardous and toxic waste. Further, vessels that are used to transport and/or dispose such waste shall obtain permit letter for transporting and/or disposing of hazardous and toxic waste by fulfilling the requirements set under MOT 29/2014. For disposal in particular, there are limitations on hazardous and toxic waste that is permitted to be disposed which are: (a) dredging materials, (b) sewage waste, (c) fishery industrial waste, (d) ships and offshore drilling units or other than man-made structures at sea, (e) non geological organic materials, (f) natural organic materials, (g) large-sized goods mainly consist of iron of iron, steel, concrete and its kind, and (h) carbon dioxide industrial waste. If a company violates the regulations relating to such waste, this license may be revoked and the company may be required to cease operations.

Electricity Industry Regulation

On September 23, 2009, Law No. 30 of 2009 on Electricity ("Electricity Law No. 30") came into effect. Electricity Law No. 30 revoked and replaced the provisions of Law No. 15 of 1985 on Electricity ("Electricity Law No. 15"). The Government Regulation No. 14 of 2012 on Electric Power Supply Business Activities, as amended by the Government Regulation No. 23 of 2014, is the implementing regulation of the Electricity Law

No. 30 issued on January 24, 2012 (“Regulation 14/2012”). In addition to the Regulation 14/2012, the procedure obtaining the electricity business license is regulated under the MEMR Regulation No. 12 of 2016 as the second amendment to the MEMR Regulation No. 35 of 2013, together with Regulation 14/2012 shall be referred to as (“Electricity Law No. 30 Implementing Regulations”).

Industry Framework

Under Electricity Law No. 30 and Regulation 14/2012, electricity supply in Indonesia is no longer executed by the state and carried out by PLN as the exclusive Holders of the Electricity Business Authority (*Pemegang Kuasa Usaha Ketenagalistrikan* or “PKUK”). Instead, Electricity Law No. 30 allows not only state owned enterprises and regional government-owned enterprises, but also private business enterprises, cooperatives and non-governmental enterprises to participate in the electricity supply business. However, PLN, as a state-owned enterprise is given first priority to be the electricity supplier for the public. If PLN declines the offer to undertake a public electricity supply business for the specified area or is unable to provide sufficient supply, the central government or the regional government, in accordance with their respective authority, may offer the right to maintain the public electricity supply business to regional-owned enterprises, private enterprises or cooperatives.

Type of Electricity Industry

Electricity Law No. 30 Implementing Regulations divides the electricity industry into two main sectors, namely the electricity supply business and the electricity supporting business. The electricity supply business is divided further into the electricity supply business for public use and electricity supply business for private use. Electricity supply business for public use covers electricity generation, transmission, distribution and sales, whereas the electricity supporting business is including consultation in electricity supply installation, development and construction of electricity supply installation, examination and inspection of electricity supply installation, operation of the electricity supply installation, maintenance of the electricity supply installation, research and development, education and training, equipment test laboratory and utilization of the electricity power, certification of equipment and utilization of the electricity power, certification of electricity technical manpower competency or certification of electricity supporting business entity.

Electricity Supply Business Licensing

Under Electricity Law No. 15, the electricity supply business license was issued in the form of: (i) an electricity business license for public use (*Izin Usaha Ketenagalistrikan Untuk Kepentingan Umum*, “IUKU”), (ii) an electricity business license for private use (*Izin Usaha Ketenagalistrikan Untuk Kepentingan Sendiri*, “IUKS”), or (iii) a PKUK. However, under Electricity Law No. 30, the PKUK is no longer recognized, and the electricity supply business license will be issued in the form of: (i) an Electricity Supply Business License (*Izin Usaha Penyediaan Tenaga Listrik*, “IUPTL”) for the purpose of supplying electricity for public use, or (ii) an Operation License (*Izin Operasi*, “IO”), for the purpose of supplying electricity for private use. Under Electricity Law No. 30, PLN is deemed to hold an IUPTL. While for entities other than PLN, it shall obtain IUPTL to supply electricity for public use. Under Regulation 14/2012, an IUPTL may be issued for the period of 30 (thirty) years and extendable coverage of licenses.

Under Electricity Law No. 30, the IUPTL covers the following business activities, such as: (i) electricity generation, (ii) electricity transmission, (iii) electricity distribution and (iv) electricity sale. An IUPTL can be issued separately for each type of electricity business activity. Further, Electricity Law No. 30 allows the integration of electricity business activities for a business entity which conducts an electricity supply business for public use.

Obligations of License Holder

Pursuant to Electricity Law No. 30, an IUPTL holders are obliged to (i) continuously supply electricity that meets the required standard of quality, (ii) provide the best services to the consumers and society, (iii) comply with electricity safety standards, (iv) prioritize the use of domestic products and supplies, and (v) provide a report on its electricity supply business to the Issuer of its respective license. Pursuant to the Electricity Law No. 30 Implementing Regulations, standard of quality shall be issued by the MEMR, the governor, or regent/mayor, in accordance with their respective authority. Failure to meet this obligation may be imposed by penalty in the form of payment of compensation related to service level to the customer.

Business Area

Electricity Law No. 30 maintains the concept of business area, which is an area that is prescribed and designated by the central government within which a business that has an IUPTL may conduct its business. Electricity Law No. 30 also reflects the general principle that only one business entity will have permission, within a single business area, to conduct an integrated electricity supply business for public use. This limitation also applies to business entities whose activities only cover distribution and/or sale of electricity for public use.

Transitional Provisions

Under Electricity Law No. 30, all IUKU and IUKS licenses that have been issued under Electricity Law No. 15 will remain valid until their expiration date; provided that such licenses will be adjusted in accordance with the provisions of Electricity Law No. 30 within two years since the enactment date of Electricity Law No. 30, being September 23, 2009. In addition to the delegation given to BKPM in issuing IUPTL, IUPTL that have been issued under the MEMR Regulation 5/2010 will remain valid until its expiration date.

Tariff Structure for the Sales Prices to Public as Consumers

Under Electricity Law No. 30 and Regulation 14/2012, the central Government retains the authority to issue national guidelines regarding electricity tariffs. However, each level of government, with the approval of the national DPR (in the case of the central Government) or regional House of Representatives (*Dewan Perwakilan Rakyat Daerah*) (in the case of a regional government), has the authority to set electricity tariffs for consumers within its jurisdiction. The holder of an IUPTL may request a tariffs determination from the MEMR, the governor, or mayor/regent, in accordance with its authority. In determining the electricity tariff, Electricity Law No. 30 expressly contemplates that the MEMR, the governor, or mayor/regent, in accordance with its authority shall consider (i) the balance of national, regional, consumer, and business interests of electricity supply, (ii) interests and capacities of the community, (iii) sound industrial and commercial principles, (iv) the electricity supply cost, (v) exploitation efficiency, (vi) business scale and system interconnection, and (vi) the available resource for investment and therefore, the tariffs charged to consumers may be different in each regional business area. Further terms and guidelines to obtain approval on electricity tariffs to public consumer shall be regulated by ministerial regulations, governor regulations or regent or mayor decree.

Integrated Power Supply Businesses

Regulation 14/2012 provides that an IUPTL license for an integrated power generation and distribution business can only be issued after obtaining the stipulation for business area. As the implementing regulation of Regulation 14/2012, MEMR Regulation Number 28 of 2012 on the Procedure for the Application of Business Area for Supplying Electricity for Public Use as amended by MEMR Regulation No. 07 of 2016, stipulates that the stipulation of business area will be granted if the relevant business area is not being served by another business area holder, if an existing business area holder is incapable of supplying electricity on a reliable basis in such business area, or if an existing business area holder return part or all of its business area to MEMR.

Sales of Electricity to PLN

On February 17, 2017, the MEMR issued MEMR Regulation No. 19 of 2017 on Utilization of Coal for Power Plant and Purchase of Excess Power. This regulation provides a guideline for PLN's purchase price of electricity from mine-mouth and non-mine-mouth power plants. Notwithstanding that the purchase price for electricity is negotiable, such purchase price shall not be higher than the relevant ceiling price set out in the MEMR Regulation 19/2017. The provisions regarding the sale and purchase of electricity will be governed by the Power Purchase Agreement between the IPP and PLN. MEMR issued Decree No. 39 K/20/MEM/2019 on the Legalization of Business Plan of PLN in Procurement of Electricity (*Rencana Usaha Penyediaan Tenaga Listrik*) for 2019 to 2028. These regulations were issued to increase the capacity of construction and development of national electric power, especially to increase construction of power generators through IPP. Coal-fired power plants can be mine-mouth and non-mine-mouth power plants. Purchase of electricity from a mine-mouth power plant IPP is done by way of direct appointment, while purchase of electricity from a non-mine-mouth power plant IPP is done in accordance with applicable laws and regulations.

Electricity Generation for Private Use

Under Electricity Law No. 30, as well as the Electricity Law No. 30 Implementing Regulation, a company may apply for a license to generate electricity strictly for its own use. Such license can be granted by the relevant local government agency, assuming the applicable electricity facilities are located solely within the jurisdiction of that local government.

Legal Framework Related to the Environmental Regulations for the Electricity Sector

A company whose operations have a significant environmental or social impact must create and maintain an AMDAL document if it meets certain environmental threshold, which contains analysis of, and plans for dealing with, that company's environmental impact. If a company has an environmental or social impact but does not reach the threshold where an AMDAL document is required, an Environmental Management Effort-Environmental Monitoring Effort ("UKL-UPL") must be prepared by the company.

Capital Market Regulations

Publicly listed companies are required by OJK regulations to periodically submit financial reports including annual financial statements and semi-annual financial statements pursuant to Bapepam-LK Regulation No. X.K.2 on Obligation to Submit Periodic Financial Statements ("Bapepam-LK Regulation X.K.2"). OJK has replaced and assumed the function, duty and authority of the Indonesian Capital Markets and Financial Supervisory Agency (*Badan Pengawas Pasar Modal dan Lembaga Keuangan* "Bapepam-LK") since December 31, 2012. In addition, the IDX requires publicly-listed companies to submit annual and interim (quarterly) financial statements pursuant to IDX Regulation No. I-E on Obligations of Information Submission ("IDX Regulation No. I-E"). Under Law No. 40 of 2007 regarding Limited Liability Company (the "Company Law"), board of directors of these companies must submit an annual report to a General Meeting of Shareholders. Pursuant to OJK Regulation No. 31/POJK.04/2015 on Disclosure on Material Information or Facts by Issuers or Public Companies ("OJK Regulation 31/2015") and IDX Regulation No. I-E, publicly-listed companies are required to report to OJK and IDX and are required to announce any material public information or facts that may affect the price of securities or investors' decision to the public, no later than two business days after the event has occurred. In addition, pursuant to OJK Regulation No. 31/2015, such announcements must include (i) the date of the event, (ii) the types of material information, (iii) a description of the material information, and (iv) the impact caused by such material information. Publicly-listed companies are also required to submit an annual report to OJK and IDX consisting of a summary of material financial data, information on shares (if any), the Board of Directors' and Board of Commissioners' report, company profile, management analysis and discussion, corporate governance, corporate social and environmental responsibility, audited annual financial statements and statement letter on the responsibilities of the Board of Directors and the Board of Commissioners in relation with the content in the annual report pursuant to OJK Regulation No. 29/POJK.04/2016 on Annual Report of Issuers or Public Companies ("OJK Regulation 29/2016") and IDX Regulation No. I-E. The annual report must be submitted to OJK and IDX within four months of the end of the respective financial year of such publicly-listed companies.

DESCRIPTION OF MATERIAL INDEBTEDNESS

The following summary of the principal terms of our material indebtedness may not contain all of the information that may be important to you. You should read the notes to our consolidated financial statements for additional information about our indebtedness and the indebtedness of our subsidiaries.

Material Bank Loans

No.	Description of Indebtedness	Guarantor(s)	Lender/ Facility Agent	Original Principal Amount (US\$ unless otherwise stated below)	Maturity	Amount Outstanding as of June 30, 2019 (US\$ unless otherwise stated below)	Amount undrawn as of June 30, 2019 (US\$ unless otherwise stated below)
Adaro Indonesia							
1.	Term Loan Facility Agreement dated August 25, 2014, amended and restated on June 2, 2016 and last amended on May 31, 2017 for the purpose of loan refinancing	Adaro Energy Coaltrade	Facility Agent: Oversea- Chinese Banking Corporation Limited	US\$1 billion	August 25, 2021	US\$628 million	—
2.	Term Loan Facility Agreement dated May 29, 2013, amended and restated on June 2, 2016 and last amended on May 31, 2017 for the purpose of loan refinancing	Adaro Energy Coaltrade	Facility Agent: DBS Bank Ltd.	US\$380 million	May 29, 2020	US\$198 million	—
PT Saptaindra Sejati (SIS)							
3.	Revolving Credit Facility Agreement dated August 20, 2018 for general corporate purposes	Adaro Energy	Facility Agent: PT Bank Mandiri (Persero) Tbk (Bank Mandiri)	US\$350 million	August 20, 2020	US\$160 million	US\$190 million
4.	Term Loan and Revolving Credit Facility Agreement dated December 21, 2015 and last amended on August 20, 2018 for loan refinancing and general corporate purposes	Adaro Energy	Facility Agent: DBS Bank Ltd.	US\$140 million (Term Loan) US\$60 million (Revolving Credit Facility)	December 21, 2021	US\$102 million (Term Loan) US\$ 0 (Revolving Credit Facility)	US\$60 million (Revolving Credit Facility)
PT Maritim Barito Perkasa (MBP)							
5.	Term Loan and Revolving Credit Facility Agreement dated December 21, 2015 and last amended on June 23, 2017 for financing capital expenditure, loan refinancing and general corporate purposes	Adaro Energy	Facility Agent: DBS Bank Ltd.	US\$100 million (Term Loan) US\$20 million (Revolving Credit Facility)	December 21, 2021	US\$80 million (Term Loan Facility) US\$ 0 (Revolving Credit Facility)	US\$20 million (Revolving Credit Facility)
Coaltrade Services International Pte Ltd (Coaltrade)							
6.	Commercial Property Loan Agreement dated June 16, 2017	None	Oversea- Chinese Banking Corporation Limited	S\$10.5 million ⁽¹⁾ (equivalent to US\$7.7 million)	July 11, 2027	S\$7.2 million ⁽¹⁾ (equivalent to US\$5.3 million)	S\$1.3 million

(1) Singapore Dollars (S\$). The middle exchange rate between the Singapore dollar (S\$) and the U.S. dollar (US\$) on June 30, 2019 was S\$0.74 = US\$1.00.

Adaro Indonesia

Term Loan Facility Agreement dated August 25, 2014, amended and restated on June 2, 2016 and last amended on May 31, 2017 for the purpose of loan refinancing (No. 1 in the table above)

On August 25, 2014, Adaro Indonesia entered into a Credit Facility Agreement of US\$1 billion with a syndicate of international banks for which Australia and New Zealand Banking Group acted as the Facility Agent. Effective August 25, 2016, Oversea-Chinese Banking Corporation Limited acts as the Facility Agent.

The term loan facility bears interest at a rate of LIBOR plus an applicable margin per annum, is repayable in quarterly installments with the final repayment to be made on August 25, 2021, the “final maturity date.” The term loan facility is unsecured but supported by guarantees from Adaro Energy and Coaltrade. Under the terms of the agreement, Adaro Indonesia and Coaltrade (together, the “obligors”) are required to comply with certain restrictive covenants related to each obligor’s change in the general nature of its business, financing activities and others and to maintain certain financial ratios and related terms and condition. The obligors are in compliance with the financial ratios and related terms and conditions.

As of June 30, 2019, this facility was fully drawn and the outstanding balance amounted to US\$628 million.

Term Loan Facility Agreement dated May 29, 2013, amended and restated on June 2, 2016 and last amended on May 31, 2017 for the purpose of loan refinancing (No. 2 in the table above)

On May 29, 2013, Adaro Indonesia entered into a Credit Facility Agreement of US\$380 million with a syndicate of international banks for which DBS Bank Ltd acts as the Facility Agent.

The term loan facility bears interest at a rate of LIBOR plus an applicable margin per annum, is repayable in quarterly installments with the final repayment to be made on May 29, 2020, the “final maturity date.” The term loan facility is unsecured but supported by guarantees from Adaro Energy and Coaltrade. Under the terms of the agreement, Adaro Indonesia and Coaltrade (together, the “obligors”) are required to comply with certain restrictive covenants related to each obligor’s change in the general nature of its business, financing activities and others and to maintain certain financial ratios and related terms and condition. The obligors are in compliance with the financial ratios and related terms and conditions.

As of June 30, 2019 this facility was fully drawn and the outstanding balance amounted to US\$198 million.

SIS

Revolving Credit Facility Agreement dated August 20, 2018 for general corporate purposes (No. 3 in the table above)

On August 20, 2018, SIS entered into a Credit Facility Agreement of US\$350 million with a syndicate of international and national banks for which Bank Mandiri acts as the Facility Agent.

The revolving credit facility bears interest at a rate of LIBOR plus an applicable margin per annum, can be utilized as separate revolving loans not exceeding the available amount of US\$350 million and each revolving loan is repayable on the last day of its interest period.

The revolving credit facility is supported by a guarantee from Adaro Energy and a security assignment by SIS of certain contracts entered into between SIS and Adaro Indonesia for the stripping of overburden, mining and transportation of coal. Under the terms of the revolving credit facility agreement, SIS is required to comply with certain restrictive covenants related to changing its general nature of business, financing activities and others and to maintain certain financial ratios and related terms and condition. SIS is in compliance with the financial ratios and related terms and conditions.

As of June 30, 2019, US\$ 160 million was outstanding under this facility and US\$190 million remained undrawn.

Term Loan and Revolving Credit Facility Agreement dated December 21, 2015 and last amended on August 20, 2018 for loan refinancing and general corporate purposes (No. 4 in the table above)

On December 21, 2015, SIS entered into a Credit Facility Agreement of US\$200 million with a syndicate of international and national banks for which DBS Bank Limited acts as the Facility Agent.

Both the term loan facility and the revolving credit facility bear interest at a rate of LIBOR plus an applicable margin per annum. The term loan is repayable in quarterly installments with the final repayment to be made on December 21, 2021, the “final maturity date.” Each revolving loan is repayable on the last day of its interest period.

Both facilities are supported by a guarantee from Adaro Energy and a security assignment by SIS of certain contracts entered into between SIS and Adaro Indonesia for the stripping of overburden, mining and transportation of coal. Under the terms of the agreement, SIS is required to comply with certain restrictive covenants related to change in the general nature of its business, corporate actions, and others and to maintain certain financial ratios and related terms and condition. SIS is in compliance with the financial ratios and related terms and conditions.

As of June 30, 2019, US\$102 million was outstanding under the term loan facility. No amounts were outstanding under the revolving facility and US\$60 million remained undrawn.

MBP

Term Loan and Revolving Credit Facility Agreement dated December 21, 2015 and last amended on June 23, 2017 for financing capital expenditure, loan refinancing and general corporate purposes (No. 5 in the table above)

On December 21, 2015, MBP entered into a Credit Facility Agreement of US\$120 million with a syndicate of international and national banks for which DBS Bank Limited acts as the Facility Agent.

Both the term loan facility and the revolving credit facility bear interest at a rate of LIBOR plus an applicable margin per annum. The term loan is repayable in quarterly installments with the final repayment to be made on December 21, 2021, the “final maturity date.” Each revolving loan is repayable on the last day of its interest period.

Both facilities are supported by a guarantee from Adaro Energy and a security assignment by MBP of certain contracts entered into between MBP and Adaro Indonesia for coal transshipment and coal barging. Under the terms of the agreement, MBP is required to comply with certain restrictive covenants related to change in the general nature of its business, corporate actions and others and to maintain certain financial ratios and related terms and condition. MBP is in compliance with the financial ratios and related terms and conditions.

As of June 30, 2019, US\$80 million was outstanding under the term loan facility. No amounts were outstanding under the revolving credit facility and US\$20 million remained undrawn.

Coaltrade

Commercial Property Loan Agreement dated June 16, 2017 (No. 6 in the table above)

On June 16, 2017 Coaltrade entered into a credit facility agreement of S\$10.5 (equivalent to US\$7.7 million) million with Oversea-Chinese Banking Corporation Limited (“OCBC”) for the purpose of financing the purchase of commercial property, which is provided as security by way of a pledge in favor of OCBC to secure the amounts outstanding under this facility. This loan bears interest at the Singapore Swap Offer Rate plus a certain percentage and has a final maturity date ten (10) years from the first drawdown date.

On July 11, 2017, Coaltrade has drawn down S\$9.2 million (equivalent to US\$6.8 million) from the facility. As of June 30, 2019, S\$7.2 million (equivalent to US\$5.3 million) was outstanding under this facility. The middle exchange rate between the Singapore dollar (S\$) and the U.S. dollar (US\$) on June 30, 2019 was S\$0.74 = US\$1.00.

Material Loans From A Third Party

PT Paramitha Cipta Sarana (PCS) and PT Semesta Centramas (SCM)

Loan Agreement dated October 2014, and last amended on September 2017

On October 22, 2014, PCS and SCM entered into loan agreements with Far East Investment Ltd (“FEIL”), a third party, under which FEIL provided loan facilities to PCS and SCM. The agreements were last amended on September 13, 2017. The total amounts of the loan facilities to PCS and SCM are US\$9.1 million and US\$6.9 million respectively. The loans bear interest at a rate of LIBOR plus an applicable margin per annum and are due on August 31, 2020. The loans are unsecured.

As of June 30, 2019, US\$9.0 million was outstanding in respect of PCS and US\$4.4 million was outstanding in respect of SCM.

Material Finance Lease Payables

SIS has entered into various lease commitments covering operational equipment. As of June 30, 2019, SIS had a total of US\$173 million outstanding in respect of finance lease payables.

Lender	Original Principal Amount	Maturity	Amount Outstanding as of June 30, 2019
PT Komatsu Astra Finance	Various facilities totaling to US\$92 million	Various dates between August 2019-2024	US\$79.0 million
PT Mitra Pinasthika Mustika Finance	Various facilities totaling to US\$39 million	Various dates in 2023	US\$37.8 million
PT Industrial Bank of Japan Verena	Various facilities totaling to US\$31 million	Various dates between 2020-2022	US\$19.7 million
PT SMFL Leasing Indonesia	Various facilities totaling to US\$13 million	Various dates in 2022	US\$11.6 million
PT Orix Indonesia Finance	Various facilities totaling to US\$17 million	Various dates on 2021	US\$9.7 million
PT JA Mitsui Leasing Indonesia	Various facilities totaling to US\$16 million	Various dates from 2020-2022	US\$9.6 million
PT Bank Bumiputra	US\$4 million	2022	US\$3.0 million
PT Caterpillar Finance Indonesia	Various facilities totaling to US\$2 million	June 2020	US\$2.5 million

Off Balance Sheet Loans Guaranteed by Adaro Energy

While the indebtedness discussed above is reflected on our consolidated statement of financial position, the indebtedness of TPI and BPI, our joint ventures, are not reflected in our consolidated financial statements. However, as the Parent Guarantor has also guaranteed these credit facilities, it is possible that the Parent Guarantor could become liable for its guaranteed portion of such indebtedness, as detailed below.

PT Tanjung Power Indonesia (TPI)

US\$70.1 million Replacement Guaranteed Bridge Facility Agreement

On March 27, 2019, TPI entered into a US\$70.1 million Replacement Guaranteed Bridge Facility Agreement with various financial institutions. Adaro Energy acts as the guarantor for a commitment equal to 65% of the total facility. As of June 30, 2019, TPI has drawn down US\$68.7 million of this facility.

PT Bhimasena Power Indonesia (BPI)

Subordinated Term Loan Facility Agreement

On June 3, 2016, BPI entered into a US\$817 million Subordinated Term Loan Facility Agreement with various financial institutions which will expire 5 years after the date of the agreement. Adaro Energy acts as the guarantor for a commitment equal to 34% of the total facility. Based on the agreement, BPI is required to enter into an interest rate hedging arrangement. Therefore, on June 3, 2016, BPI entered into an interest rate hedging agreement with various financial institutions, to hedge 90% of the interest rate exposure in respect of the total outstanding loan facility. As of June 30, 2019, this facility has been fully drawn, in the amount of US\$817 million.

MANAGEMENT

Our Articles of Association (“AoA”) were adopted on July 6, 2015. In accordance with Article 3 of our AoA, our principal activity is trading, services, industry, coal hauling, workshop activities, mining and construction. Our board of directors and board of commissioners are elected by our shareholders.

Pursuant to our AoA, we are directed and managed by a board of directors. In general, our directors are elected by a general meeting of shareholders, for a period from the date specified at the relevant general meeting of shareholders that appoints such members of the board of directors until the closing of the fifth annual general meeting of shareholders from the date of the appointment of such members of the board of directors, without prejudice to the general meeting of shareholders’ right to dismiss the appointed directors at any time. Our AoA requires that there be at least two directors. The current term of each director ends in 2021.

According to OJK Regulation No. 33 and the Board of Directors Charter, the board of directors holds meetings at least once per month. The board of directors is also required to have periodic meetings with the board of commissioners at least once in four months, or (i) at any time deemed necessary by one or more directors, (ii) based on a written request from one or more commissioners or (iii) based on a written request from one or more shareholders jointly representing one-tenth of the total lawful voting shares. The president director presides over the meetings of the board of directors, and in the absence of a president director, the vice president director presides over the meetings of the board of directors. In the absence of the vice president director, any director elected by and amongst the directors present in such meetings of board of directors, presides over the meetings of the board of directors. Each member of the board of directors shall have one vote at each meeting. The resolution of the meetings of the board of directors shall be adopted by a consensus. If no consensus is reached by deliberation, the resolution shall be adopted by voting based on affirmative vote of more than one-half of the total votes lawfully cast at the meeting. Our board of directors are responsible for managing our business in accordance with the purposes and objectives stipulated in the AoA and for the appointments of our senior management.

Pursuant to our AoA, our board of commissioners are responsible for the supervision of management policies, general management, our business and for giving advice to our directors. In general, our commissioners are elected by a general meeting of shareholders for a period from the date specified at the relevant general meeting of shareholders that appoints such members of the board of commissioners until the closing of the fifth annual general meeting of shareholders from the date of the appointment of such members of the board of commissioners, without prejudice to the general meeting of shareholders’ right to dismiss the appointed commissioners at any time. Our AoA requires there be at least two commissioners. The current term of each commissioner ends in 2023.

Pursuant to our AoA, meetings of the board of commissioners shall occur at least once every two months and as otherwise necessary. The board of commissioners is also required to have periodic meetings with the board of directors at least once in four months. The resolution of the meetings of the board of commissioners shall be adopted by consensus. If no consensus is reached by deliberation, the resolution shall be adopted by voting based on affirmative vote of more than one-half of the total votes lawfully cast at the meeting.

As of June 11, 2019, our board of directors and board of commissioners comprise five directors and five commissioners.

The table below sets forth the names, positions and ages of Adaro Energy’s directors and commissioners.

Name	Position	Age	Date of first appointment
Mr. Edwin Soeryadjaya	President Commissioner	69	December 2007
Mr. Ir. Theodore Permadi Rachmat	Vice President Commissioner	75	August 2004
Ms. Arini Saraswati Subianto	Commissioner	48	April 2017
Mr. Dr. Ir. Raden Pardede	Independent Commissioner	59	April 2010
Mr. Mohammad Effendi	Independent Commissioner	65	April 2019
Mr. Garibaldi Thohir	President Director	53	August 2004

Name	Position	Age	Date of first appointment
Mr. Christian Ariano Rachmat	Vice President Director	46	August 2004
Mr. Chia Ah Hoo	Director	60	April 2008
Mr. M. Syah Indra Aman	Director	52	April 2011
Mr. Julius Aslan	Director	55	April 2013

The business address of each director and commissioner is the address of our registered office.

We have not provided any guarantee of any personal liabilities of any of our directors or commissioners. We have not extended any loans to any of our principal senior management. Members of the board of commissioners and board of directors are normally released and discharged from any liabilities annually when our financial statements are accepted and approved by the general meeting of shareholders.

Pursuant to POJK No. 33/POJK.04/2014 regarding the Board of Directors and the Board of Commissioners of Issuers or Public Companies, as a company listed on the IDX, we are required to have at least two commissioners, one of which is an independent commissioner. If we have more than two commissioners, the independent commissioner shall represent at least 30% (thirty percent) of all members of the board of commissioners. A commissioner is independent if he or she: (i) is not an individual who worked or had the authority and responsibility to plan, lead, control or supervise activities of the public company within the last six months, unless in the context of reappointment as the independent commissioner of the public company for the following period; (ii) does not directly or indirectly own shares at the public company; (iii) does not have an affiliation with the public company, members of board of commissioners, members of board of directors, or the main shareholders of the public company; and (iv) does not have a business relationship, which is directly or indirectly associated with the business activities of the public company.

Pursuant to POJK No. 55/POJK.04/2015 regarding the Formation and Guidelines for the Works of Audit Committee, the audit committee of a listed company should have at least one independent commissioner, and two experts, each for the area of accounting and finance. The audit committee is chaired by an independent commissioner.

Audit Committee of Adaro Energy

Pursuant to POJK No. 55/POJK.04/2015 concerning Formation and Guidelines for the Works of Audit Committee, Adaro Energy's audit committee is appointed by and reports to its board of commissioners. The duties and responsibilities of the audit committee are, among others, (a) the review of Adaro Energy's financial information, (b) the granting of recommendation to Board of Commissioners on appointment of the accountant and the monitoring of the internal auditor performance, (c) internal control effectiveness, (d) the compliance with the rules and regulations, (e) the implementation of risk management, and (f) the implementation of self-assessment of audit committee. The audit committee was established in 2009. The audit committee is chaired by Mr. Mohammad Effendi, an independent commissioner. The other two members of the audit committee are Mrs. Lindawati Gani and Mr. Ignatius Robby Sani.

The audit committee is supported by the internal audit unit in identifying key risk areas and effectiveness of controls within these areas. Reports focus on process and controls improvement, safeguarding assets and quality financial information.

The membership of the audit committee represents diverse skills and knowledge of management, finance and accounting, law, and of the mining related industry.

Biographies of Directors and Commissioners of Adaro Energy

Mr. Edwin Soeryadjaya is our president commissioner, and the president commissioner of PT Viscaya Investments, PT Dianlia Setyamukti, PT Adaro Strategic Investments, PT Adaro Strategic Capital, PT Adaro Strategic Lestari, PT Saratoga Investama Sedaya Tbk, PT Tower Bersama Infrastructure Tbk, PT Mitra Pinasthika Mustika Tbk, PT Merdeka Copper Gold Tbk. He is also a non-executive chairman of Interra Resources Limited and a co-founder of the William Soeryadjaya Foundation. He is currently the chairman of the Advisory Board of

Adaro Bangun Negeri Foundation and a member of the Trustees of the Ora Et Labora Foundation. In 1978, Mr. Soeryadjaya joined PT Astra International Tbk. and left as vice president director in 1993. In 1998, he and Sandiaga Uno founded PT Saratoga Investama Sedaya, an investment company diversified into mining, infrastructure, oil, gas, toll roads, plantations, automotive, ports and cruises. Mr. Soeryadjaya obtained a Bachelor of Business Administration degree from the University of Southern California in 1974.

Mr. Ir. Theodore Permadi Rachmat is our vice president commissioner and the vice president commissioner of PT Surya Esa Perkasa Tbk, a commissioner of PT Viscaya Investments, PT Dianlia Setyamukti, PT Adaro Strategic Investments, PT Adaro Strategic Capital, and PT Adaro Strategic Lestari. He is a member of the Advisory Board of Adaro Bangun Negeri Foundation. He joined the Heavy Equipment Division of PT Astra International Tbk. in 1969, where he held senior and executive positions, including president director, president commissioner, and commissioner until 2005. He was a commissioner at PT Multi Bintang Tbk from 2002 to 2007 and was the founder of the Triputra Group. Mr. Rachmat was named “Best CEO 1994 in Asia” by *CEO of the Year Europe and Asia 1994 Financial World*. He obtained a degree in mechanical engineering from the Bandung Institute of Technology in 1968.

Ms. Arini Saraswaty Subianto is our commissioner, and president commissioner of PT Anugrah Kirana Sarana, commissioner of PT Nuansa Nirmana Artistika, PT Casa Maha Rasa, PT Adaro Strategic Investments, PT Adaro Strategic Lestari, PT Adaro Strategic Capital, PT Suryalaya Anindita International, PT Dharma Satya Nusantara, and President Director of PT Tri Nur Cakrawala, PT Pandu Alam Persada, PT Persada Capital Investama, and Director of PT Panaksara. Ms. Subianto obtained a Master degree in Business Administration from Fordham University Graduate School of Business Administration, New York and a degree in Fashion Design from Parsons School of Design.

Mr. Dr. Ir. Raden Pardede is our independent commissioner. Upon graduation, he founded the Danareksa Research Institute, a leader on early warning indicators, consumer confidence index surveys and business sentiment indexes. He served as the chief economist and division head, and the executive director from 1995 to 2004. He was vice co-ordinator of the assisting team to the Indonesian Minister of Finance from 2000 to 2004. In 2010, he co-founded Creco Consulting with former Finance Minister Chatib Basri, and is currently its managing partner. He earned a chemical engineering degree from Bandung Institute Technology in 1984 and a doctorate in economics from Boston University in the United States in 1995, New York.

Mr. Mohammad Effendi is our independent commissioner. He is also president commissioner of BPI. Previously he was president director of Adaro Power and BPI, and was president commissioner of PT Makmur Sejahtera Wisesa and TPI. He was appointed as independent commissioner of Adaro Energy based on Deed No. 61 of April 30, 2019. He started his career at PT Unilever Indonesia Tbk. in 1978 after graduating from the Bandung Institute of Technology with a degree in Electrical Engineering. At PT Unilever Tbk, he held various senior and executive positions, including serving as a Supply Chain Director for eight years until 2009.

Mr. Garibaldi Thohir is our president director, and the president director of Viscaya Investments, PT Dianlia Setyamukti, PT Adaro Strategic Investments, PT Adaro Strategic Capital, and PT Adaro Strategic Lestari. He also serves as president commissioner of PT Alam Tri Abadi, Adaro Indonesia, PT Adaro Power, PT Mustika Indah Permai, PT Bukit Enim Energi, PT Bhakti Energi Persada, PT Adaro Persada Mandiri, PT Rehabilitasi Lingkungan Indonesia, PT Agri Multi Lestari, Adaro MetCoal Companies, and PT Adaro Tirta Mandiri. Outside the Adaro Group, he was president director of PT Trinugraha Thohir Holding and a Commissioner of PT Merdeka Copper Gold Tbk. Mr. Thohir obtained his Bachelor degree from the University of Southern California and his MBA degree from Northrop University.

Mr. Christian Ariano Rachmat is our vice president director, and director of PT Adaro Strategic Investments, PT Adaro Strategic Capital, PT Adaro Strategic Lestari, PT Viscaya Investments, PT Dianlia Setyamukti, Coaltrade Services International Pte Ltd, Adaro Capital Limited, and Orchard Maritime Limited. He is also president commissioner of PT Jasapower Indonesia, PT Adaro Jasabara Indonesia, and commissioner of Adaro Indonesia, PT Alam Tri Abadi, PT Mustika Indah Permai, Adaro MetCoal Companies, PT Bhakti Energi Persada, PT Adaro Power, and PT Adaro Tirta Energi. Mr. Rachmat obtained an Engineering Degree from Northwestern University in 1995.

Mr. Chia Ah Hoo is our director, and the president director of Adaro Indonesia, PT Alam Tri Abadi, PT Saptaindra Sejati and Adaro MetCoal Companies, Director of PT Viscaya Investments, and president commissioner of PT Paramitha Cipta Sarana, PT Semesta Centramas, PT Laskar Semesta Alam. He has held the position of general manager at Adaro since 1998. Mr. Chia joined the Group in 1991 as operations manager of Kalimantan operations. He has over 20 years of experience in civil construction projects and open cut mining projects throughout Southeast Asia. He is a director of the World Coal Institute and the Indonesia Mining Association. Mr. Chia graduated with a Bachelor of Applied Science in Civil and Engineering from the University of Windsor (Canada) in 1984.

Mr. Mohammad Syah Indra Aman is our director and chief legal officer. He is also director of PT Alam Tri Abadi, Coaltrade Services International Pte Ltd, and Adaro Capital Limited, President Commissioner of PT Adaro Logistics, PT Indonesia Bulk Terminal, PT Sarana Daya Mandiri, PT Indonesia Multi Purpose Terminal, PT Puradika Bongkar Muat Makmur, PT Maritim Barito Perkasa, PT Harapan Bahtera Internusa, PT Alam Sukses Lestari, PT Hutan Amanah Lestari, and Commissioner of Adaro Indonesia, PT Saptaindra Sejati, PT Mustika Indah Permai, PT Paramitha Cipta Sarana, PT Semesta Centramas, PT Laskar Semesta Alam, PT Jasapower Indonesia, PT Adaro Jasabara Indonesia, PT Adaro Mining Technologies, PT Adaro Power, Adaro MetCoal Companies, PT Agri Multi Lestari, PT Rehabilitasi Lingkungan Indonesia, PT Adaro Tirta Mandiri, and PT Trimitra Tirta Sarana. Before joining Adaro Group in 1996, he has worked as a practicing lawyer at Minang, Warman, Sofyan SH & Associates and Lubis, Ganie & Surowidjojo. Mr. Aman obtained his Law degree from the Faculty of Law, University of Indonesia in 1990 and his Master of Laws (LLM) from University of Washington, School of Law.

Mr. Julius Aslan is our director, and the president commissioner of PT Saptaindra Sejati and Commissioner of PT Alam Tri Abadi, Adaro Indonesia, PT Adaro Mining Technologies, PT Adaro Logistics, PT Adaro Power, PT Indonesia Bulk Terminal, PT Puradika Bongkar Muat Makmur, PT Maritim Barito Perkasa, PT Harapan Bahtera Internusa, and Adaro MetCoal Companies. Mr. Aslan earned a bachelor's degree in electrical engineering from the National Institute of Science and Technology, Jakarta, and has more than two decades of professional experience, primarily in senior human resources positions.

Compensation of the Boards of Commissioners and Directors

The Boards of Commissioners and Directors of Adaro Energy and its subsidiaries are considered key management personnel.

The compensation for the Boards of Commissioners and Directors of Adaro Energy and its subsidiaries was as follows:

	For the Year Ended December 31,			For the six months ended June 30,	
	2016	2017	2018	2018	2019
			(US\$ millions)		
Remuneration	21.0	22.8	23.6	17.2	17.1
Post-employment benefits	1.9	2.2	1.7	1.2	0.9
Total	22.9	25.0	25.3	18.4	18.0

The Boards of Commissioners and Directors of Adaro Energy and its subsidiaries do not reserve any other benefits, such as management stock options.

PRINCIPAL SHAREHOLDERS

We are a public company listed on the Indonesia Stock Exchange. As of June 30, 2019, our authorized share capital was 80,000,000,000 shares.

The following table sets forth certain information with respect to our shareholders as of June 30, 2019:

Name	Number of Shares Held	Percentage of Total Outstanding Shares
Shareholders:		
PT Adaro Strategic Investments ⁽¹⁾	14,045,425,500	43.91%
Public	13,973,683,895	43.69%
Commissioners:		
Edwin Soeryadjaya	1,051,738,544	3.29%
Theodore Permadi Rachmat	812,988,601	2.54%
Arini Saraswaty Subianto	79,399,250	0.25%
Directors:		
Garibaldi Thohir	1,976,632,710	6.18%
Christian Ariano Rachmat	20,000,000	0.06%
Julius Aslan	17,000,000	0.05%
Chia Ah Hoo	9,093,500	0.03%
Total	31,985,962,000	100.00%

- (1) The families of Edwin Soeryadjaya, Theodore Permadi Rachmat, Arini Saraswaty Subianto and Garibaldi Thohir control 43.91% of the Parent Guarantor through a holding company, PT Adaro Strategic Investments and, collectively these families hold approximately 65% of the Parent Guarantor's shares.

The Issuer is our subsidiary with 88.47% of its shares indirectly owned by us, and 11.53% of its shares owned by EGAT International Company Limited ("EGATi"). EGATi is a subsidiary of the Electricity Generating Authority of Thailand, a Thai state-owned enterprise engaged in power generation. On November 22, 2016, the Issuer conducted a rights issue fully subscribed by EGATi with a total transaction amount of US\$325.0 million. EGATi paid US\$163.5 million on November 22, 2016 and the remaining amount will be paid subject to meeting certain conditions. This transaction was a strategic partnership in order to strengthen the Issuer's financial position.

RELATED PARTY TRANSACTIONS

In general, transactions between us and any of our related parties constitute “related party transactions.” We have summarized below the key related party transactions that we have entered into with some of our affiliates. We believe each of these arrangements as described below have been entered into on arm’s-length terms or on terms that we believe have been at least as favorable to us as similar transactions with non-related parties.

Related Party Transactions of Adaro Indonesia, for the six-month period ended June 30, 2019.

Certain Commercial Contracts in the six-month period ended June 30, 2019

As part of our overall pit-to-power strategy, Adaro Indonesia enters into commercial agreements with other subsidiaries and joint ventures of Adaro Energy on a regular basis, including:

Contracts relating to Adaro Indonesia’s mining operations and coal processing, for the six-month period ended June 30, 2019 including: (i) transactions with SIS for mining activities in the amount of US\$205.4 million under a contract expiring in September 2042; (ii) transactions with MSW for electricity in the amount of US\$12.0 million under a contract expiring in October 2022; (iii) transactions with PT Jasapower Indonesia for out-of-pit crushing and conveyor costs in the amount of US\$10.5 million under a contract expiring in September 2022, which was terminated by Adaro Indonesia in May 2019; (iv) transactions with PT Adaro Persada Mandiri for infrastructure rental in the amount of US\$0.7 million under a contract expiring in August 2021; (v) transactions with PT Alam Tri Abadi (“ATA”) for (a) chemical supplies in the amount of US\$2.2 million under a contract expiring in December 2022, (b) land utilization in the amount of US\$3.4 million under a contract expiring in September 2022, and (c) rental expense in the amount of US\$0.1 million under a contract expiring in April 2021; and (vi) transactions with various other subsidiaries of Adaro Energy for land management, exploration and other products and services related to mining, in the aggregate amount of US\$3.5 million for the six-month period ended June 30, 2019.

Contracts relating to freight and handling of Adaro Indonesia’s coal, including: (i) transactions with MBP for coal handling and barging services in the amount of US\$107.1 million under a contract expiring in September 2042; (ii) transactions with PBMM for stevedoring in the amount of US\$7.4 million under a contract expiring in October 2022; (iii) transactions with HBI for (a) fuel transportation in the amount of US\$2.4 million under a contract expiring in July 2029, and (b) shipping administration and management services in the amount of US\$3.3 million under a contract expiring in April 2022; and (iv) transactions with IBT for coal terminal services in the amount of US\$4.6 million under a contract expiring in August 2027. Adaro Indonesia also has a business advisory services contract with the Parent Guarantor which has no specified expiry date, transactions in the amount of US\$13.1 million were made pursuant to this contract.

Contracts relating to Adaro Indonesia’s sales of coal, including sales of coal to Coaltrade for trading, MSW for power generation and TPI for power generation, in total amounts of US\$266.7 million, US\$4.6 million and US\$6.3 million, respectively, with each agreement remaining in effect at least until 2022. Adaro Indonesia also purchases coal from LSA and SCM (each Balangan Coal Companies) in total amounts of US\$49.6 million and US\$15.6 million, respectively, with each agreement expiring in December 2021. Adaro Indonesia also recorded sales commissions to Coaltrade in the amount of US\$20.6 million associated with the marketing of its coal under a contract expiring in December 2020.

From time to time, Adaro Indonesia also terminates contracts with other subsidiaries and joint ventures of Adaro Energy. For example, Adaro Indonesia and PT Jasapower Indonesia have entered into a termination agreement dated June 24, 2019 (the “Termination Agreement”) whereby under such Termination Agreement, Adaro Indonesia shall pay termination fees to PT Jasapower Indonesia in the total amount of approximately US\$140 million subject to the terms and conditions thereto. The first installment accrual in the amount of US\$73.4 million has been included to Adaro Indonesia’s profit and loss for the six-month periods ended June 30, 2019, Adaro Indonesia anticipates that the remainder will be accrued prior to December 31, 2019.

Certain Intragroup/Shareholder Loans

From time to time, Adaro Indonesia enters into certain loan arrangements with other subsidiaries of Adaro Energy. Such loan arrangements may be at floating rates of interest or free of interest. As of June 30, 2019, Adaro Indonesia was lender to the following intragroup loans: (i) to the Parent Guarantor, (a) US\$364.2 million at a floating rate of interest, maturing in December 2027, and (b) US\$18 million at a floating rate of interest, maturing in December 2027; (ii) to ATA, (a) US\$77.1 million free of interest, maturing in December 2027, and (b) US\$188.8 million at a floating rate of interest, maturing in December 2027; (iii) to Arindo Holdings, US\$160.5 million free of interest, maturing in December 2027; and (iv) to Vindoor Investment, US\$340.4 million at a floating rate of interest, maturing in December 2024.

Settlement upon Overlap Area with ATA

Adaro Indonesia and ATA have reached an agreement for the settlement on Adaro Indonesia's Mining Area that overlaps with ATA's plantation area of approximately 4,340.77 hectares ("Overlap Area"). Pursuant to the terms of such agreement, Adaro Indonesia will compensate ATA in stages up to the total amount of approximately US\$152 million as a consideration for ATA to relinquish its rights in the Overlap Area so Adaro Indonesia would be able to conduct its mining operations in the Overlap Area.

Transactions with PT Tanjung Power Indonesia ("TPI")

TPI entered into a primary supply contract with Adaro Indonesia as well as two backup coal supply contracts with PT Paramitha Cipta Sarana and PT Semesta Centramas. Each of the above mentioned contracts are dated November 15, 2016.

In transactions with TPI for the year ended December 31, 2018 and the six months ended June 30, 2019, Adaro Indonesia had trade receivables from sales of coal in the amounts, as stated in Adaro Indonesia's financial statements of US\$3.3 million and US\$5.2 million, respectively.

In transactions with TPI for the year ended December 31, 2018 and the six months ended June 30, 2019, Adaro Indonesia had revenue from sales of coal in the amounts, as stated in Adaro Indonesia's financial statements of US\$3.2 million and US\$6.3 million, respectively.

DESCRIPTION OF NOTES

You can find the definitions of certain terms used in this description under the subheading “Certain Definitions.” In this description, “Issuer” refers only to PT Adaro Indonesia and not to any other entity, and “Parent Guarantor” refers to PT Adaro Energy Tbk and not to any of its Subsidiaries.

The Issuer will issue the notes under an indenture between itself, the Parent Guarantor and The Bank of New York Mellon, as trustee, in a private transaction that is not subject to the registration requirements of the Securities Act. See “Transfer Restrictions.” The terms of the notes will include those stated in the indenture.

The following description is a summary of the material provisions of the indenture. It does not restate that agreement in its entirety. You are urged to read the indenture because it, and not this description, defines your rights as holders of the notes. Copies of the indenture are available as set forth below under “— Additional Information.” Certain defined terms used in this description but not defined below under “— Certain Definitions” have the meanings assigned to them in the indenture.

The registered holder of a note will be treated as the owner of it for all purposes. Only registered holders will have rights under the indenture.

Brief Description of the Notes and the Note Guarantees

The Notes

The notes:

- will be general unsecured obligations of the Issuer;
- will rank equally in right of payment with all existing and future unsecured senior Indebtedness of the Issuer;
- will be senior in right of payment to any future subordinated Indebtedness of the Issuer;
- will be structurally subordinated to all existing and future obligations of the Issuer’s Subsidiaries, if any;
- will be effectively subordinated to all existing and future secured obligations of the Issuer to the extent of the collateral securing such obligations; and
- will be unconditionally guaranteed by the Parent Guarantor.

The Note Guarantees

As of the date of the indenture, the notes will be guaranteed by the Parent Guarantor, but not by any of its Subsidiaries. After the date of the indenture, the Parent Guarantor may designate one or more of its Subsidiaries (other than the Issuer) as Guarantors to guarantee the notes. Each guarantee of the notes:

- will be a general unsecured obligation of the Guarantor;
- will rank equally in right of payment with all existing and future unsecured senior Indebtedness of that Guarantor;
- will be senior in right of payment to any future subordinated Indebtedness of that Guarantor;
- will be structurally subordinated to all existing and future obligations of the Parent Guarantor’s Subsidiaries that do not guarantee the notes; and

- will be effectively subordinated to all existing and future secured obligations of that Guarantor to the extent of the collateral securing such obligations.

As of the date of this offering memorandum, the Issuer does not have any operating Subsidiaries and the Parent Guarantor's other Subsidiaries will not initially guarantee the notes. In the event of a bankruptcy, liquidation or reorganization of any of these non-guarantor Subsidiaries, the non-guarantor Subsidiaries will pay the holders of their debt and their trade creditors before they will be able to distribute any of their assets to the Parent Guarantor.

If the OJK (Indonesian Financial Services Authority) or any successor entity issues a regulation (an "OJK Regulation") that requires the Parent Guarantor to limit the guarantee and indemnity it provides under its Note Guarantee so that such guarantee and indemnity is proportionate to the total equity in the Issuer directly (legally and beneficially) or indirectly held by the Parent Guarantor, the guarantee and indemnity under the Note Guarantee will be taken to be so limited in accordance with such OJK Regulation.

Principal, Maturity and Interest

The Issuer will issue US\$750.0 million in aggregate principal amount of notes in this offering. The Issuer may issue additional notes ("*Additional Notes*") under the indenture from time to time after this offering. Any issuance of Additional Notes is subject to all applicable covenants in the indenture, including the covenant described below under the caption "— Certain Covenants — Incurrence of Indebtedness and Issuance of Disqualified Stock." The notes and any Additional Notes subsequently issued under the indenture will be treated as a single class for all purposes under the indenture, including, without limitation, waivers, amendments, redemptions and offers to purchase. The Issuer will issue notes in denominations of US\$250,000 or any higher integral multiples of US\$1,000. The notes will mature on October 31, 2024.

Interest on the notes will accrue at the rate of 4.25% per annum and will be payable semi-annually in arrears on April 30 and October 31, commencing on April 30, 2020. Interest on overdue principal and interest, if any, will accrue at a rate that is 1% higher than the then applicable interest rate on the notes. The Issuer will make each interest payment to the holders of record on the immediately preceding April 16 and October 16.

Interest on the notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

Methods of Receiving Payments on the Notes

If a holder of notes has given wire transfer instructions to the Issuer, the Issuer will pay all principal of, premium on, if any, and interest, if any, on that holder's notes in accordance with those instructions. All other payments on the notes will be made at the office or agency of the paying agent and registrar within the City and State of New York.

Additional Amounts

All payments made by, or on behalf of, the Issuer or any Guarantor (each, a "*Payor*") under, or with respect to, the notes or the applicable Note Guarantee will be made free and clear of and without withholding or deduction for or on account of any present or future tax, duties, levies, imposts, assessments or other governmental charges (including penalties, interest and other liabilities related thereto) (collectively, "*Taxes*"), unless the Payor is required to withhold or deduct such Taxes by law or by the official interpretation or administration thereof.

If a Payor is required to withhold or deduct any amount for or on account of Taxes imposed or levied by or on behalf of (i) Indonesia, (ii) any jurisdiction in which the Payor is organized or is otherwise resident for tax purposes, (iii) the jurisdiction through which payments are made, or (iv) political subdivision or taxing authority of any of the foregoing (any of the aforementioned being a "*Relevant Taxing Jurisdiction*") from any payment made under or with respect to the notes or the applicable Note Guarantee, the Payor will pay such additional

amounts (“*Additional Amounts*”) as may be necessary so that the net amount received by each holder of a note after such withholding or deduction will not be less than the amount such holder would have received if such Taxes had not been required to be withheld or deducted.

However, no such Additional Amounts will be payable with respect to any payment on any note or under any Note Guarantee to the extent:

- (1) that any Taxes would not have been imposed but for the existence of any connection between the holder or beneficial owner of a note and the Relevant Taxing Jurisdiction other than:
 - (a) a connection arising solely from the mere holding of such note;
 - (b) the exercise of any right provided by such note;
 - (c) the enforcement of the terms of such note; or
 - (d) the receipt of payments with respect to such note;
- (2) of any such Taxes with respect to a note presented for payment more than 30 days after the date on which that payment became due and payable or the date on which payment is provided for and notice given to holders of notes, whichever occurs later, except to the extent that payments to the relevant holder would have been subject to deduction or withholding of Taxes, and the holder of such note would have been entitled to such Additional Amounts on presenting such note for payment on the last day of such 30-day period;
- (3) that any such Taxes would not have been imposed but for the failure of the holder of such note, following the reasonable request by the Payor, to comply with any certification, identification or other reporting requirements concerning the nationality, residence, identity or connection with a Relevant Taxing Jurisdiction of the holder of such note, in each case if compliance is required by law, regulation, administrative practice, treaty or other governmental doctrine as a precondition to exemption from, reduction in the rate of, deduction or withholding of such Taxes;
- (4) of any estate, inheritance, gift, value added, sales, use, transfer, personal property or other similar tax, assessment, or other governmental charge imposed with respect to the notes or under the applicable Note Guarantee;
- (5) that any such taxes, duties, assessments or governmental charges are imposed on a payment to an individual and are required to be made pursuant to any European Union directive on the taxation of savings income implementing the conclusions of the ECOFIN Council meeting of November 26 and 27, 2000 (including the European Union Directive on the Taxation of Savings Income (Directive 2003/48/EC) or any law implementing or complying with, or introduced in order to conform to, such Directive;
- (6) such note was presented for payment by or on behalf of a holder who would have been able to avoid such withholding or deduction by presenting the relevant note to another paying agent in a Member State of the European Union;
- (7) any tax, duty, assessment or other governmental charge which is payable otherwise than by deduction on or withholding from payments of (or in respect of) principal of, premium, if any, or interest on, the notes or under the Note Guarantees;
- (8) any withholding or deduction imposed on or in respect of any Note pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended, (“FATCA”), any current or future regulations or official interpretations thereof, the laws of any Relevant Taxing Jurisdiction (including any intergovernmental agreements and related legislation or official administrative

guidance) implementing FATCA, or any agreement between the Issuer, Parent Guarantor or any Subsidiary Guarantor and the United States or any authority thereof entered into for FATCA purposes; or

- (9) any combination of Taxes referred to in the preceding clauses.

No Additional Amounts will be payable with respect to any payment on any note or under any Note Guarantee to a Holder that is a fiduciary, partnership or person other than the sole beneficial owner of any payment to the extent that such payment would be required to be included for tax purposes in the income under the laws of a Relevant Taxing Jurisdiction, of a beneficiary or settlor with respect to the fiduciary, or a member of that partnership or a beneficial owner who would not have been entitled to such Additional Amounts had that beneficiary, settlor, partner, or beneficial owner been the Holder thereof.

Any reference in this description, in the indenture, in the notes or in the Note Guarantees to principal, premium or interest shall be deemed also to refer to any Additional Amounts to the extent such Additional Amounts are, were or would be payable in respect thereof under the covenant referred to in this section “— Additional Amounts,” unless the context otherwise requires.

Each Payor will provide the trustee with certified copies of tax receipts or other documentation evidencing the payment of any taxes with respect to payments on the notes or the Note Guarantees, as applicable. Copies of this documentation will be made available to the beneficial owners or holders of the notes or the paying agent upon written request at the sole expense of the Issuer.

At least 30 days prior to each date on which any payment under or with respect to the notes or the Note Guarantees is due and payable (unless such obligation to pay Additional Amounts arises shortly before or after the 30th day prior to such date, in which case it shall be promptly thereafter), if a Payor is obligated to pay Additional Amounts with respect to such payment, the Payor will deliver to the trustee an Officers’ Certificate stating the fact that such Additional Amounts will be payable, the amounts so payable and will set forth such other information necessary to enable the paying agent to pay such Additional Amounts to holders of notes on the payment date. Each Officers’ Certificate may be relied upon until receipt of a further Officers’ Certificate addressing such matters. A further certificate need not be given if there is no change in the matters addressed in a previously delivered Officers’ Certificate.

Each Payor will pay any present or future stamp, court or documentary taxes, or any other excise or property taxes, charges or similar levies which arise in any jurisdiction from the execution, delivery or registration of the notes or any other document or instrument referred to therein (other than a transfer of the notes), or the receipt of any payment with respect to the notes or the Note Guarantees (excluding any such taxes, charges or similar levies imposed by any jurisdiction outside Indonesia, the United States or any other jurisdiction in which a paying agent is located, other than those resulting from, or required to be paid in connection with, the enforcement of the notes or the Note Guarantees or any other such document or instrument following the occurrence of any Event of Default with respect to the notes) and the Issuer agrees to indemnify the trustee, each paying agent and the holders for any such taxes paid by such holders.

In the event that Additional Amounts actually paid with respect to the Notes described above are based on rates of deduction or withholding of withholding taxes in excess of the appropriate rate applicable to the Holder of such Notes, and, as a result thereof such Holder is entitled to make claim for a refund or credit of such excess from the authority imposing such withholding tax, then such Holder shall, by accepting such Notes, be deemed to have assigned and transferred all right, title, and interest to any such claim for a refund or credit of such excess to the Issuer.

The foregoing obligations will survive any termination, defeasance or discharge of the indenture and will apply mutatis mutandis to any jurisdiction in which any successor to the Issuer is organized or any political subdivision or taxing authority or agency thereof or therein.

Paying Agent, Transfer Agent and Registrar for the Notes

The Bank of New York Mellon will initially act as paying agent, transfer agent and registrar. The Issuer may change the paying agent, transfer agent or registrar without prior notice to the holders of the notes, and the Issuer or the Parent Guarantor may act as paying agent, transfer agent or registrar.

Transfer and Exchange

A holder may transfer or exchange notes in accordance with the provisions of the indenture. The registrar and the transfer agent may require a holder, among other things, to furnish appropriate endorsements and transfer documents in connection with a transfer of notes. Holders will be required to pay all taxes due on transfer. The Issuer will not be required to transfer or exchange any note selected for redemption. Also, the Issuer will not be required to transfer or exchange any note for a period of 15 days before a selection of notes to be redeemed.

Note Guarantees

As of the date of the indenture, the notes will be guaranteed by the Parent Guarantor but not any of its Subsidiaries. After the date of the indenture, the Parent Guarantor may designate one or more of its Subsidiaries (other than the Issuer) to guarantee the notes. The Note Guarantees will be the joint and several obligations of the Guarantors. The obligation of each Guarantor under its Note Guarantee will be limited as necessary to prevent that Note Guarantee from constituting a fraudulent conveyance under applicable law.

The Note Guarantee of a Guarantor will be released:

- (1) in connection with any sale or other disposition of all or substantially all of the assets of that Guarantor, by way of merger, consolidation or otherwise, to a Person that is not (either before or after giving effect to such transaction) that Guarantor, if the sale or disposition does not violate the provisions of the indenture;
- (2) in the case of the Note Guarantee of a Subsidiary Guarantor, if the Parent Guarantor removes the designation of that Subsidiary Guarantor as a Subsidiary Guarantor in accordance with the applicable provisions of the indenture; or
- (3) upon legal defeasance, covenant defeasance or satisfaction and discharge of the indenture as provided below under the captions “— Legal Defeasance and Covenant Defeasance” and “— Satisfaction and Discharge.”

Optional Redemption

At any time prior to October 31, 2022, the Issuer may on any one or more occasions redeem up to 35% of the aggregate principal amount of notes issued under the indenture, upon not less than 30 nor more than 60 days' notice, at a redemption price equal to 104.2500% of the principal amount of the notes redeemed, plus accrued and unpaid interest, if any, to the date of redemption (subject to the rights of holders of notes on the relevant record date to receive interest on the relevant interest payment date), with the net cash proceeds of an Equity Offering by the Issuer or by a contribution to the Issuer's common equity capital made with the net cash proceeds of a concurrent Equity Offering by the Parent Guarantor; *provided that*:

- (1) at least 65% of the aggregate principal amount of notes originally issued under the indenture (excluding notes held by the Parent Guarantor and its Subsidiaries) remains outstanding immediately after the occurrence of such redemption; and
- (2) the redemption occurs within 60 days of the date of the closing of such Equity Offering.

At any time prior to October 31, 2022, the Issuer may on any one or more occasions redeem all or a part of the notes, upon not less than 30 nor more than 60 days' notice, at a redemption price equal to 100% of the principal amount of the notes redeemed, plus the Applicable Premium as of, and accrued and unpaid interest, if any, to the date of redemption, subject to the rights of holders of notes on the relevant record date to receive interest due on the relevant interest payment date. Neither the Trustee nor any of the Agents shall be responsible for verifying or calculating the Applicable Premium.

Except pursuant to the preceding paragraphs and “*Redemption Upon Changes in Withholding Taxes*” described below, the notes will not be redeemable at the Issuer’s option prior to October 31, 2022.

On or after October 31, 2022, the Issuer may on any one or more occasions redeem all or a part of the notes, upon not less than 30 nor more than 60 days’ notice, at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest, if any, on the notes redeemed, to the applicable date of redemption, if redeemed during the twelve-month period beginning on October 31 of the years indicated below, subject to the rights of holders of notes on the relevant record date to receive interest on the relevant interest payment date:

Year	Percentage
2022	102.1250%
2023 and thereafter	101.0625%

Unless the Issuer defaults in the payment of the redemption price, interest will cease to accrue on the notes or portions thereof called for redemption on the applicable redemption date.

Mandatory Redemption

The Issuer is not required to make mandatory redemption or sinking fund payments with respect to the notes.

Redemption Upon Changes in Withholding Taxes

If, as a result of:

- (1) any amendment after the date of the indenture to, or change after the date of the indenture in, the laws, regulations or rulings of a Relevant Taxing Jurisdiction (or any political subdivision or taxing authority thereof or therein), or
- (2) any change after the date of the indenture in the general application or general or official interpretation of the laws, regulations or rulings (including a holding, judgment or order by a court of competent jurisdiction) of a Relevant Taxing Jurisdiction applicable to the Issuer, the Parent Guarantor or any Subsidiary Guarantor organized in a Relevant Taxing Jurisdiction, or relating to the Coal Cooperation Agreement,

the Issuer, the Parent Guarantor or such Subsidiary Guarantor would be obligated to pay, as a result of that change or amendment, Additional Amounts as described above under “— Additional Amounts” in excess of the Additional Amounts payable with respect to a deduction or withholding on account of Taxes imposed or levied by or on behalf of Indonesia (or any political subdivision or taxing authority thereof or therein) (i) at a rate of 20% of the amount payable under the notes, in the case of the Issuer, (ii) at the rate of 20% of the amount payable under the Parent Guarantor’s Note Guarantee, in the case of the Parent Guarantor, or (iii) at the rate of 20% of the amount payable under such Subsidiary Guarantor’s Note Guarantee (*provided* that, Additional Amounts are also payable at a rate in excess of 20% by the Parent Guarantor), in the case of such Subsidiary Guarantor, which the Issuer, the Parent Guarantor or such Subsidiary Guarantor, as the case may be, cannot avoid by the use of commercially reasonable measures available to it, then the Issuer may redeem all, but not less than all, of the notes, at any time thereafter, upon not less than 30 nor more than 60 days’ notice, at a redemption price of 100% of their principal amount, plus accrued interest to the redemption date. In addition, the obligations of the Issuer, the Parent Guarantor and such Subsidiary Guarantor to pay Additional Amounts must remain in effect when the Issuer gives the notice of redemption. Prior to the giving of any notice of redemption described in this paragraph, the Issuer must deliver to the trustee:

- (1) an Officers’ Certificate stating that the obligation to pay such Additional Amounts cannot be avoided by the Issuer’s, the Parent Guarantor’s or such Subsidiary Guarantor’s taking commercially reasonable measures available to it; and

- (2) an Opinion of Counsel or an independent auditor stating that the Issuer, the Parent Guarantor or such Subsidiary Guarantor has or will become obligated to pay such Additional Amounts as a result of an amendment, change, or official application or interpretation described above.

The trustee and the Agents will be entitled to accept and rely upon such certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent described above, in which event it will be conclusive and binding on the holders and will not be responsible for any loss occasioned by acting in reliance on such certificate or opinion. The trustee has no duty to investigate or verify such certificate or opinion.

The Issuer will provide notice of any optional redemption of the notes described above in accordance with the provisions of the indenture.

Repurchase at the Option of Holders

Change of Control

If a Change of Control occurs, each holder of notes will have the right to require the Issuer to make an offer to repurchase all or any part (equal to US\$250,000 or a higher integral multiple of US\$1,000) of that holder's notes (a "*Change of Control Offer*") on the terms set forth in the indenture. In the Change of Control Offer, the Issuer will offer a payment (the "*Change of Control Payment*") in cash equal to 101% of the aggregate principal amount of notes repurchased, plus accrued and unpaid interest, if any, on the notes repurchased to the date of purchase, subject to the rights of holders of notes on the relevant record date to receive interest due on the relevant interest payment date. Within ten days following any Change of Control, the Issuer will mail a notice to each holder (with a copy to the trustee) describing the transaction or transactions that constitute the Change of Control and specifying a date to repurchase notes (the "*Change of Control Payment Date*"), which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed, pursuant to the procedures required by the indenture and described in such notice.

The Issuer will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the indenture, the Issuer will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Change of Control provisions of the indenture by virtue of such compliance.

On the Change of Control Payment Date, the Issuer will, to the extent lawful:

- (1) accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer;
- (2) deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and
- (3) deliver or cause to be delivered to the paying agent the notes properly accepted together with an Officers' Certificate stating the aggregate principal amount of notes or portions of notes being purchased by the Issuer.

The paying agent will promptly mail to each holder of notes properly tendered the Change of Control Payment for such notes, and, upon receipt of written instructions from the Issuer, the trustee will promptly authenticate and mail (or cause to be transferred by book entry) to each holder a new note equal in principal amount to any unpurchased portion of the notes surrendered, if any. The Issuer will publicly announce the results of the Change of Control Offer on or as soon as practicable after the Change of Control Payment Date.

The provisions described above that require the Issuer to make a Change of Control Offer following a Change of Control will be applicable whether or not any other provisions of the indenture are applicable. Except

as described above with respect to a Change of Control, the indenture does not contain provisions that permit the holders of the notes to require that the Issuer repurchase or redeem the notes in the event of a takeover, recapitalization or similar transaction.

The Issuer will not be required to make a Change of Control Offer upon a Change of Control if (1) a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the indenture applicable to a Change of Control Offer made by the Issuer and purchases all notes properly tendered and not withdrawn under the Change of Control Offer, or (2) notice of redemption has been given pursuant to the indenture as described above under the caption “— Optional Redemption,” unless and until there is a default in payment of the applicable redemption price. Notwithstanding anything to the contrary contained herein, a Change of Control Offer may be made in advance of a Change of Control, conditioned upon the consummation of a Change of Control, if a definitive agreement is in place for the Change of Control at the time the Change of Control Offer is made.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of “all or substantially all” of the properties or assets of the Issuer and its Subsidiaries, if any, taken as a whole. Although there is a limited body of case law interpreting the phrase “substantially all,” there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of notes to require the Issuer to repurchase its notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of the Issuer to another Person or group may be uncertain.

The trustee shall not be required to take any steps to ascertain whether a Change of Control or any event which could lead to a Change of Control has occurred and shall not be liable to any person for any failure to do so.

Asset Sales

Neither the Issuer nor any Subsidiary Guarantor will consummate an Asset Sale unless:

- (1) the Issuer or the Subsidiary Guarantor receives consideration at the time of the Asset Sale at least equal to the Fair Market Value (measured as of the date of the definitive agreement with respect to such Asset Sale) of the assets or Equity Interests issued or sold or otherwise disposed of; and
- (2) at least 75% of the consideration received in the Asset Sale by the Issuer or the Subsidiary Guarantor is in the form of cash or cash equivalents. For purposes of this provision, each of the following will be deemed to be cash:
 - (a) any liabilities of the Issuer or the Subsidiary Guarantor (as shown on the most recent consolidated balance sheet of the Issuer or the Parent Guarantor, respectively), other than contingent liabilities and liabilities that are by their terms subordinated to the notes or the applicable Note Guarantee, that are assumed by the transferee of any such assets pursuant to a customary novation or indemnity agreement that releases the Issuer or the Subsidiary Guarantor from or indemnifies against further liability;
 - (b) any securities, notes or other obligations received by the Issuer or the Subsidiary Guarantor from such transferee that are contemporaneously, subject to ordinary settlement periods, converted by the Issuer or the Subsidiary Guarantor into cash, to the extent of the cash received in that conversion; and
 - (c) any Capital Stock or assets of the kind referred to in clauses (2) or (4) of the next paragraph of this covenant.

Within 360 days after the receipt of any Net Proceeds from an Asset Sale, the Issuer or the Subsidiary Guarantor may apply such Net Proceeds:

- (1) to repay Indebtedness and other Obligations that are secured by a Lien or that are not subordinated to the notes or the applicable Note Guarantee;

- (2) to acquire all or substantially all of the assets of, or any Capital Stock of, another Permitted Business;
- (3) to make capital expenditures; or
- (4) to acquire other assets that are not classified as current assets under GAAP and that are or will be used in a Permitted Business.

Pending the final application of any Net Proceeds, the Issuer or a Subsidiary Guarantor may temporarily reduce revolving credit borrowings or otherwise invest the Net Proceeds in any manner that is not prohibited by the indenture.

Any Net Proceeds from Asset Sales that are not applied or invested within 360 days (or in the case of an acquisition, within 540 days if a binding agreement for the acquisition has been entered into within 360 days, the closing of which is subject only to customary conditions) as provided in the second paragraph of this covenant will constitute “*Excess Proceeds*.” When the aggregate amount of Excess Proceeds exceeds US\$25.0 million, within ten days thereof, the Issuer will make an offer (an “*Asset Sale Offer*”) to all holders of notes and all holders of other Indebtedness that is *pari passu* with the notes containing provisions similar to those set forth in the indenture with respect to offers to purchase, prepay or redeem with the proceeds of sales of assets to purchase, prepay or redeem the maximum principal amount of notes and such other *pari passu* Indebtedness (plus all accrued interest on the Indebtedness and the amount of all fees and expenses, including premiums, incurred in connection therewith) that may be purchased, prepaid or redeemed out of the Excess Proceeds. The offer price in any Asset Sale Offer will be equal to 100% of the principal amount, plus accrued and unpaid interest, if any, to the date of purchase, prepayment or redemption, subject to the rights of holders of notes on the relevant record date to receive interest due on the relevant interest payment date, and will be payable in cash. If any Excess Proceeds remain after consummation of an Asset Sale Offer, the Issuer may use those Excess Proceeds for any purpose not otherwise prohibited by the indenture. If the aggregate principal amount of notes and other *pari passu* Indebtedness tendered in (or required to be prepaid or redeemed in connection with) such Asset Sale Offer exceeds the amount of Excess Proceeds, the Issuer will select the notes and such other *pari passu* Indebtedness to be purchased on a *pro rata* basis, based on the amounts tendered or required to be prepaid or redeemed (with such adjustments as may be deemed appropriate by the Issuer so that only notes in denominations of US\$250,000 or a higher integral multiple of US\$1,000, will be purchased). Upon completion of each Asset Sale Offer, the amount of Excess Proceeds will be reset at zero.

The Issuer will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with each repurchase of notes pursuant to an Asset Sale Offer. To the extent that the provisions of any securities laws or regulations conflict with the Asset Sale provisions of the indenture, the Issuer will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Asset Sale provisions of the indenture by virtue of such compliance.

The agreements governing the Issuer’s other Indebtedness contain, and future agreements may contain, prohibitions of certain events, including events that would constitute a Change of Control or an Asset Sale and including repurchases of or other prepayments in respect of the notes. The exercise by the holders of notes of their right to require the Issuer to repurchase the notes upon a Change of Control or an Asset Sale could cause a default under these other agreements, even if the Change of Control or Asset Sale itself does not, due to the financial effect of such repurchases on the Issuer. If a Change of Control or Asset Sale occurs at a time when the Issuer is prohibited from purchasing notes, the Issuer could seek the consent of the parties to these other agreements to the purchase of notes or could attempt to refinance the borrowings that contain such prohibitions. If the Issuer does not obtain consents or repay those borrowings, the Issuer will remain prohibited from purchasing notes. In that case, the Issuer’s failure to purchase tendered notes would constitute an Event of Default under the indenture which could, in turn, constitute a default under the other indebtedness. Finally, the Issuer’s ability to pay cash to the holders of notes upon a repurchase may be limited by the Issuer’s then existing financial resources. See “Risk Factors — Risks Relating to the Notes and the Guarantee — The Issuer may not have the ability to raise the funds necessary to finance an offer to repurchase the notes upon the occurrence of certain events as required by the indenture governing the Notes.”

Selection and Notice

If less than all of the notes are to be redeemed at any time, the notes will be redeemed on a *pro rata* basis to the extent practicable or pursuant to another method in accordance with the procedures of The Depository Trust Company, unless otherwise required by law or applicable stock exchange or depositary requirements.

No notes of US\$250,000 or less can be redeemed in part. Notices of redemption will be mailed by first class mail at least 30 but not more than 60 days before the redemption date to each holder of notes to be redeemed at its registered address, except that redemption notices may be mailed more than 45 days prior to a redemption date if the notice is issued in connection with a defeasance of the notes or a satisfaction and discharge of the indenture. Notices of redemption may be subject to satisfaction of one or more conditions.

If any note is to be redeemed in part only, the notice of redemption that relates to that note will state the portion of the principal amount of that note that is to be redeemed. A new note in principal amount equal to the unredeemed portion of the original note will be issued in the name of the holder of notes upon cancellation of the original note. Notes called for redemption become due on the date fixed for redemption. On and after the redemption date, interest ceases to accrue on notes or portions of notes called for redemption.

Certain Covenants

Changes in Covenants When Notes Rated Investment Grade

If on any date following the date of the indenture:

- (1) the notes are rated Investment Grade by any one Rating Agency; and
- (2) no Default or Event of Default shall have occurred and be continuing,

then, beginning on that day, the covenants specifically listed under the following captions in this offering memorandum will be suspended:

- (1) “— Repurchase at the Option of Holders — Asset Sales”;
- (2) “— Incurrence of Indebtedness and Issuance of Disqualified Stock” (except that it will be deemed to continue to apply solely for the purposes of the covenant under “— Liens” and the definition of “Permitted Liens”);
- (3) “— Designation of Subsidiary Guarantors”;
- (4) clause (4)(a) of the second paragraph of the covenant described below under the caption “— Merger, Consolidation or Sale of Assets”;
- (5) “— Transactions with Affiliates”; and
- (6) “— Business Activities.”

During any period that the foregoing covenants have been suspended, the Parent Guarantor’s Board of Directors may not remove the designation of any of its Subsidiaries as Subsidiary Guarantors pursuant to the covenant described below under the caption “— Designation of Subsidiary Guarantors”; *provided* that, the Board of Directors of the Parent Guarantor may remove the designation of any Subsidiary Guarantor that (1) is not a Significant Subsidiary Guarantor and (2) would not constitute a Significant Subsidiary Guarantor, when taken together with other Subsidiary Guarantors (not being Significant Subsidiary Guarantors) whose designations have been removed or are being removed after the suspension of covenants.

Notwithstanding the foregoing, if the rating assigned by any one Rating Agency should subsequently decline from Investment Grade to below Investment Grade, the foregoing covenants will be reinstituted as of and from the date of such rating decline.

There can be no assurance that the notes will ever achieve an Investment Grade rating or that any such rating will be maintained.

Incurrence of Indebtedness and Issuance of Disqualified Stock

Neither the Issuer nor any Subsidiary Guarantor will, directly or indirectly, create, incur, issue, assume, guarantee or otherwise become directly or indirectly liable, contingently or otherwise, with respect to (collectively, “*incur*”) any Indebtedness (including Acquired Debt), and neither the Issuer nor any Subsidiary Guarantor will issue any Disqualified Stock; *provided, however*, that the Issuer and any Subsidiary Guarantor may incur Indebtedness (including Acquired Debt) or issue Disqualified Stock, if the Fixed Charge Coverage Ratio for the most recently ended four full fiscal quarters for the Issuer and the Subsidiary Guarantors (if any), for the most recently ended four full fiscal quarters for which internal financial statements of the Issuer and the Subsidiary Guarantors (if any) are available immediately preceding the date on which such additional Indebtedness is incurred or such Disqualified Stock is issued, would have been at least 2.0 to 1.0, determined on a pro forma basis (including a pro forma application of the net proceeds therefrom), as if the additional Indebtedness had been incurred or the Disqualified Stock had been issued at the beginning of such four-quarter period.

The first paragraph of this covenant will not prohibit the incurrence of any of the following items of Indebtedness (collectively, “*Permitted Debt*”):

- (1) the incurrence by the Issuer and any Subsidiary Guarantor of additional revolving credit Indebtedness and letters of credit under Credit Facilities (with letters of credit being deemed to have a principal amount equal to the maximum potential liability of the Issuer and the Subsidiary Guarantors thereunder); *provided* that on the date of the Incurrence of such Indebtedness and after giving effect thereto, the aggregate principal amount outstanding of all such Indebtedness permitted by this clause (1), together with the aggregate principal amount outstanding of Indebtedness permitted to be Incurred under clause (5) below, does not exceed an amount equal to 15.0% of Total Assets;
- (2) the incurrence by the Issuer of the Existing Indebtedness;
- (3) the incurrence by the Issuer of Indebtedness represented by the notes to be issued on the date of the indenture (excluding any Additional Notes);
- (4) the incurrence by the Subsidiary Guarantors of Note Guarantees;
- (5) the incurrence by the Issuer and the Subsidiary Guarantors of Indebtedness represented by Capital Lease Obligations, mortgage financings or purchase money obligations, in each case, incurred for the purpose of financing all or any part of the purchase price or cost of design, construction, installation or improvement of property, plant or equipment used in the business of the Issuer, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (5); *provided* that on the date of the Incurrence of such Indebtedness and after giving effect thereto, the aggregate principal amount outstanding of all such Indebtedness permitted by this clause (5), together with the aggregate principal amount outstanding of Indebtedness permitted to be Incurred under clause (1) above, does not exceed an amount equal to 15.0% of Total Assets;
- (6) the incurrence by the Issuer and the Subsidiary Guarantors of Permitted Refinancing Indebtedness in exchange for, or the net proceeds of which are used to renew, refund, refinance, replace, defease or discharge any Indebtedness (other than intercompany Indebtedness) that was permitted by the indenture to be incurred under the first paragraph of this covenant or clauses (1), (2), (3), (4), (5) or (6) of this paragraph;
- (7) the incurrence by the Issuer and the Subsidiary Guarantors of Hedging Obligations in the ordinary course of business (and not for speculative purposes);

- (8) the incurrence by the Issuer and the Subsidiary Guarantors of Indebtedness in respect of workers' compensation claims, self-insurance obligations, bankers' acceptances, performance and surety bonds in the ordinary course of business;
- (9) the incurrence by the Issuer and the Subsidiary Guarantors of Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument inadvertently drawn against insufficient funds, so long as such Indebtedness is covered within five business days;
- (10) the incurrence of Indebtedness arising from agreements by the Issuer and the Subsidiary Guarantors providing for indemnification, adjustment of purchase price or similar obligations, in each case, in connection with the disposition of any assets of the Issuer, *provided* that the maximum aggregate liability in respect of all such Indebtedness shall at no time exceed the gross proceeds actually received by the Issuer and the Subsidiary Guarantors in connection with such disposition;
- (11) the incurrence by the Issuer and the Subsidiary Guarantors of Indebtedness to the Parent Guarantor that is contractually subordinated to the notes and the applicable Note Guarantees; and
- (12) the incurrence by the Issuer and the Subsidiary Guarantors of additional Indebtedness in an aggregate principal amount (or accreted value, as applicable) at any time outstanding, including all Permitted Refinancing Indebtedness incurred to renew, refund, refinance, replace, defease or discharge any Indebtedness incurred pursuant to this clause (12), not to exceed US\$75.0 million.

Neither the Issuer nor any Subsidiary Guarantor will incur any Indebtedness (including Permitted Debt) that is contractually subordinated in right of payment to any other Indebtedness of the Issuer or the Subsidiary Guarantor unless such Indebtedness is also contractually subordinated in right of payment to the notes or the applicable Note Guarantee on substantially identical terms; *provided, however*, that no Indebtedness will be deemed to be contractually subordinated in right of payment to any other Indebtedness of the Issuer or the Subsidiary Guarantor solely by virtue of being unsecured or by virtue of being secured on a junior priority basis.

For purposes of determining compliance with this "Incurrence of Indebtedness and Issuance of Disqualified Stock" covenant, in the event that an item of Indebtedness meets the criteria of more than one of the categories of Permitted Debt described in clauses (1) through (12) above, or is entitled to be incurred pursuant to the first paragraph of this covenant, the Issuer will be permitted to classify such item of Indebtedness on the date of its incurrence, or later reclassify all or a portion of such item of Indebtedness, in any manner that complies with this covenant. The accrual of interest or preferred stock dividends, the accretion or amortization of original issue discount, the payment of interest on any Indebtedness in the form of additional Indebtedness with the same terms, the reclassification of preferred stock as Indebtedness due to a change in accounting principles, and the payment of dividends on preferred stock or Disqualified Stock in the form of additional shares of the same class of preferred stock or Disqualified Stock will not be deemed to be an incurrence of Indebtedness or an issuance of Disqualified Stock for purposes of this covenant; *provided*, in each such case, that the amount thereof is included in Fixed Charges of the Issuer and the Subsidiary Guarantors as accrued. For purposes of determining compliance with any U.S. dollar-denominated restriction on the incurrence of Indebtedness, the U.S. dollar-equivalent principal amount of Indebtedness denominated in a foreign currency shall be utilized, calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was incurred. Notwithstanding any other provision of this covenant, the maximum amount of Indebtedness that the Issuer may incur pursuant to this covenant shall not be deemed to be exceeded solely as a result of fluctuations in exchange rates or currency values.

The amount of any Indebtedness outstanding as of any date will be:

- (1) the accreted value of the Indebtedness, in the case of any Indebtedness issued with original issue discount;
- (2) the principal amount of the Indebtedness, in the case of any other Indebtedness; and

- (3) in respect of Indebtedness of another Person secured by a Lien on the assets of the specified Person, the lesser of:
 - (a) the Fair Market Value of such assets at the date of determination; and
 - (b) the amount of the Indebtedness of the other Person.

Liens

Neither the Issuer nor any Subsidiary Guarantor will create, incur, assume or otherwise cause or suffer to exist or become effective any Lien of any kind (other than Permitted Liens) upon any of their property or assets, now owned or hereafter acquired, unless all payments due under the indenture and the notes are secured on an equal and ratable basis with the obligations so secured until such time as such obligations are no longer secured by a Lien.

Merger, Consolidation or Sale of Assets

The Parent Guarantor will not, directly or indirectly: (1) consolidate or merge with or into another Person, or (2) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Parent Guarantor and its Subsidiaries taken as a whole, in one or more related transactions, to another Person, unless:

- (1) either: (a) the Parent Guarantor is the surviving corporation; or (b) the Person formed by or surviving any such consolidation or merger (if other than the Parent Guarantor) or to which such sale, assignment, transfer, conveyance or other disposition has been made is a corporation organized or existing under the laws of Indonesia, Australia, Singapore, Hong Kong, the United States, any state of the United States, the District of Columbia, the United Kingdom or any country that was a member of the European Union at the time of such transaction;
- (2) the Person formed by or surviving any such consolidation or merger (if other than the Parent Guarantor) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made assumes all the obligations of the Parent Guarantor under the notes, its Note Guarantee and the indenture pursuant to agreements reasonably satisfactory to the trustee;
- (3) immediately after such transaction, no Default or Event of Default exists; and
- (4) such transaction would not result in a violation of, or in the revocation, suspension or termination of the Coal Cooperation Agreement, or such other government licenses or concessions required for the business conducted by the Issuer.

The Issuer will not, directly or indirectly: (1) consolidate or merge with or into another Person, or (2) sell, assign, transfer, convey or otherwise dispose of all or substantially all of its properties or assets, in one or more related transactions, to another Person, unless:

- (1) either: (a) the Issuer is the surviving corporation; or (b) the Person formed by or surviving any such consolidation or merger (if other than the Issuer) or to which such sale, assignment, transfer, conveyance or other disposition has been made is a corporation organized or existing under the laws of Indonesia;
- (2) the Person formed by or surviving any such consolidation or merger (if other than the Issuer) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made assumes all the obligations of the Issuer under the notes and the indenture;
- (3) immediately after such transaction, no Default or Event of Default exists; and

- (4) the Issuer, or the Person formed by or surviving any such consolidation or merger (if other than the Issuer), or to which such sale, assignment, transfer, conveyance or other disposition has been made:
 - (a) would, on the date of such transaction after giving pro forma effect thereto and any related financing transactions as if the same had occurred at the beginning of the applicable four-quarter period (i) be permitted to incur at least US\$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described above under the caption “— Incurrence of Indebtedness and Issuance of Disqualified Stock” or (ii) have had a Fixed Charge Coverage Ratio greater than the actual Fixed Charge Coverage Ratio for the Issuer for such four-quarter period; and
 - (b) would continue to be entitled or succeed to the rights of the Issuer under applicable government licenses or concessions required for the business conducted by the Issuer, such as the Coal Cooperation Agreement; and
- (5) such transaction would not result in a violation of, or in the revocation, suspension or termination of the Coal Cooperation Agreement or such other government licenses or concessions required for the business conducted by the Issuer.

In addition, the Issuer will not, directly or indirectly, lease all or substantially all of its properties and assets in one or more related transactions, to any other Person.

No Subsidiary Guarantor will, directly or indirectly: (1) consolidate or merge with or into another Person (whether or not the Issuer is the surviving corporation), or (2) sell, assign, transfer, convey or otherwise dispose of all or substantially all of its properties or assets, in one or more related transactions, to another Person, unless:

- (1) either: (a) the Subsidiary Guarantor is the surviving corporation; or (b) the Person formed by or surviving any such consolidation or merger (if other than the Subsidiary Guarantor) or to which such sale, assignment, transfer, conveyance or other disposition has been made is the Issuer, the Parent Guarantor or another Subsidiary Guarantor; and
- (2) immediately after such transaction, no Default or Event of Default exists.

In addition, each Subsidiary Guarantor will not, directly or indirectly, lease all or substantially all of its properties and assets in one or more related transactions, to any other Person other than to the Issuer, the Parent Guarantor or another Subsidiary Guarantor.

Transactions with Affiliates

Neither the Issuer nor any Subsidiary Guarantor will make any payment to or sell, lease, transfer or otherwise dispose of any of its properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate of the Issuer or the Parent Guarantor (each, an “*Affiliate Transaction*”) involving aggregate payments or consideration in excess of US\$5.0 million in any four consecutive fiscal quarters, unless:

- (1) the Affiliate Transaction is on terms that are no less favorable to the Issuer than those that would have been obtained in a comparable transaction by the Issuer with an unrelated Person; and
- (2) the Issuer delivers to the trustee:
 - (a) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of US\$10.0 million, a resolution of the Board of Directors of the Issuer or the applicable Subsidiary Guarantor set forth in an Officers’ Certificate certifying that such Affiliate Transaction complies with this covenant and that such Affiliate Transaction has been approved by a majority of the disinterested members of the Board of Directors of the Issuer or the applicable Subsidiary Guarantor; and

- (b) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of US\$50.0 million, an opinion as to the fairness to the Issuer or the applicable Guarantor, of such Affiliate Transaction from a financial point of view issued by an accounting, appraisal or investment banking firm of international standing.

The following items will not be deemed to be Affiliate Transactions and, therefore, will not be subject to the provisions of the prior paragraph:

- (1) any employment agreement, employee benefit plan, officer, director or commissioner indemnification agreement or any similar arrangement entered into by the Issuer or a Subsidiary Guarantor in the ordinary course of business and payments pursuant thereto;
- (2) transactions between or among the Issuer and the Guarantors;
- (3) transactions between the Issuer on the one hand and other Subsidiaries of the Parent Guarantor on the other hand that are, in each case, on balance after taking into account all of the costs and benefits associated with such transactions, on an arm's length basis, in the reasonable and good faith determination of the Board of Directors of the Issuer;
- (4) transactions with a Person that is an Affiliate of the Issuer solely because the Issuer owns, an Equity Interest in, or controls, such Person;
- (5) payment of reasonable and customary fees and reimbursements of expenses (pursuant to indemnity arrangements or otherwise) of officers, directors, employees or consultants of the Issuer or a Subsidiary Guarantor;
- (6) any issuance of Equity Interests (other than Disqualified Stock) of the Issuer or a Subsidiary Guarantor to the Parent Guarantor;
- (7) loans or advances to employees in the ordinary course of business not to exceed US\$10.0 million in the aggregate at any one time;
- (8) any transactions with respect to, or in relation to, any work plan, budget or program which has been approved or initiated by the Government of Indonesia;
- (9) transactions with Persons pursuant to agreements in existence on the date of the indenture and described under in the "Related Party Transactions" section of this offering memorandum and any amendment, supplement, restatement, replacement, renewal, extension, refinancing thereof or thereto, including without limitation with different counterparties, so long as the amended, supplemented, restated, replaced, renewed, extended, refinanced or new agreement, when taken as a whole, is not more disadvantageous to the holders of the notes in any material respect than the original agreements in existence on the date of the indenture, giving consideration to prevailing market conditions at the time of such amendment, supplement, restatement, replacement, renewal, extension or refinancing; and
- (10) transactions expressly disclosed in the "Use of Proceeds" section of this offering memorandum.

Business Activities

The Issuer and each Subsidiary Guarantor will not, engage in any business other than Permitted Businesses, except to such extent as would not be material to the Issuer or the Subsidiary Guarantor, as the case may be.

Maintenance of Insurance

The Issuer will maintain insurance with reputable and financially sound carriers against such risks and in such amounts as is customarily carried by similarly situated businesses, in the jurisdictions in which the Issuer

conduct their businesses, including, without limitation, property and casualty insurance, and that such insurance coverage (including deductibles, retentions and self-insurance amounts) must at all times comply with the insurance coverage required under any applicable government license or concession, including the Coal Cooperation Agreement.

Government Approvals and Licenses; Compliance with Law

The Issuer will (1) obtain and maintain in full force and effect all governmental approvals, authorizations, consents, permits, concessions and licenses as are reasonably necessary or required to engage in Permitted Businesses; (2) preserve and maintain good and valid title to its properties and assets free and clear of any Liens other than Permitted Liens; and (3) comply with all laws, regulations, orders, judgments and decrees of any governmental body, except to the extent that failure so to obtain, maintain, preserve and comply would not have a material adverse effect on the business, results of operations or prospects of the Issuer.

Investment Company Act

The Issuer will not take any action which would require it to register as an “investment company” as such term is defined in the Investment Company Act.

For so long as any Notes are outstanding, the Issuer shall, and shall cause or direct DTC to, implement all necessary procedures and steps in connection with the Notes to ensure that the Issuer can rely on the exemption provided for under Section 3(c)(7) of the Investment Company Act.

In addition, the Indenture will provide that if, notwithstanding the restrictions contained in the Notes, the Issuer determines that any beneficial owner of a Note is not either (A) a non-U.S. person outside the United States, not an affiliate of the Parent Guarantor and purchasing the Notes in an offshore transaction in compliance with Regulation S or (B) both a qualified institutional buyer (“QIB”) that is not an affiliate of the Parent Guarantor and a qualified purchaser (“QP”) at the time it acquired such beneficial interest, then the Issuer may require, by notice to such beneficial owner, that such beneficial owner sell or transfer, as applicable, such Note (or beneficial interest) to a Person that is either a non-U.S. person outside the United States in an offshore transaction in compliance with Regulation S or both a QIB and a QP, with such sale to be effected within ten days after notice of such sale requirement is given. If such beneficial owner fails to effect the sale or transfer, as applicable, within such ten-day period, the Issuer has the right, without further notice to such beneficial owner, to compel such beneficial owner to sell or transfer, as applicable, such Notes (or such beneficial interest) to a purchaser selected by the Issuer who meets the requirements set forth in the Indenture on such terms as the Issuer may choose. The Issuer may select the purchaser by soliciting one or more bids from one or more brokers or other market professionals that regularly deal in securities similar to the Notes, and selling such Notes to the highest such bidder. The Issuer may also select a purchaser by any other means determined in its sole discretion.

Designation of Subsidiary Guarantors

After the date of the indenture, the Parent Guarantor may designate any of its Subsidiaries (other than the Issuer) or the Issuer’s Subsidiaries, if any, to be a Subsidiary Guarantor, *provided* that the Parent Guarantor may not designate a Subsidiary to be a Subsidiary Guarantor unless:

- (1) all Liens and Indebtedness of that Subsidiary would, at the time of such designation and after giving pro forma effect thereto as if such designation had occurred at the beginning of the applicable preceding four-quarter period, have been permitted to be incurred or made for all purposes of the indenture; and
- (2) no Default or Event of Default would be in existence following such designation.

The designation of a Subsidiary Guarantor will take effect upon:

- (1) the execution and delivery to the trustee of (a) a supplemental indenture containing a Note Guarantee and otherwise in form and substance satisfactory to the trustee, pursuant to which such Subsidiary unconditionally guarantees all of the Issuer’s obligations under the notes and the indenture; and

- (2) the delivery to the trustee of one or more opinions of counsel that such supplemental indenture (a) has been duly authorized, executed and delivered by such Subsidiary and (b) constitutes a valid and legally binding obligation of such Subsidiary in accordance with its terms.

The Board of Directors of the Parent Guarantor may remove the designation of any Subsidiary as a Subsidiary Guarantor; *provided* that:

- (1) the Issuer would be, at the time of such removal of designation, and would have been, after giving pro forma effect thereto as if removal of designation had been made at the beginning of the applicable four-quarter period, permitted to incur at least US\$1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of the covenant described under the caption “— Incurrence of Indebtedness and Issuance of Preferred Stock”; and
- (2) no Default or Event of Default would be in existence following such removal of designation.

The Parent Guarantor must ensure that a Subsidiary Guarantor at all time remains a Subsidiary of the Parent Guarantor and that all Subsidiaries of a Subsidiary Guarantor are also Subsidiary Guarantors.

Payments for Consent

The Issuer will not directly or indirectly, pay or cause to be paid any consideration to or for the benefit of any holder of notes for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the indenture or the notes unless such consideration is offered to be paid and is paid to all holders of the notes that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or agreement. Notwithstanding the foregoing, the Issuer shall be permitted to exclude from any offer or payment of such consideration holders of notes in any jurisdiction where (x) the solicitation of such consent, waiver or amendment, the payment of the consideration therefor or the conduct or completion of a related offer to purchase or exchange the notes for cash or other securities would require the Issuer to file a registration statement, prospectus or similar document under any securities laws of such jurisdiction (including, but not limited to, the United States, the European Union and its member states); or (y) such offer, payment or solicitation would otherwise not be permitted under applicable law in such jurisdiction.

Reports

The Issuer and the Parent Guarantor have agreed, and each Subsidiary Guarantor will agree, in the indenture that, so long as notes remain outstanding and are “restricted securities” within the meaning of Rule 144(a)(3) under the Securities Act, they will furnish, upon the request of any holder of a note or of a beneficial interest in a note, such information as is specified in paragraph (d)(4) of Rule 144A, to such holder or beneficial owner or to a prospective purchaser of a note or a beneficial interest in a note who is a qualified institutional buyer within the meaning of Rule 144A, in order to permit compliance by the holder or beneficial owner with Rule 144A in connection with the resale of the note or beneficial interest in the note in reliance on Rule 144A.

The foregoing requirement does not apply to the Issuer or any Guarantor, as the case may be, if, at the time of the request, it is subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, or claims exemption from the registration requirements of Section 12(g) of the Exchange Act and therefore is required to publish certain information pursuant to Rule 12g3-2(b) under the Exchange Act.

The Parent Guarantor will file with the trustee, and furnish to the holders upon request, as reasonably soon after they are available but in any event not more than five business days after they are filed with the Indonesia Stock Exchange or any other recognized exchange on which the Parent Guarantor’s ordinary shares are at any time listed for trading, true and correct copies of any financial or other report, in the English language, filed with such exchange.

Concurrently with each delivery by the Parent Guarantor of its financial reports pursuant to the preceding paragraph, the Issuer will file with the trustee, and furnish to the holders upon request, the Issuer’s financial statements for the same period covered by the financial reports of the Parent Guarantor being delivered.

To the extent the Parent Guarantor's ordinary shares are not listed on the Indonesia Stock Exchange or any other recognized exchange or to the extent such exchange does not prescribe the delivery of financial statements for a fiscal period referred to below, the Issuer and the Parent Guarantor will each make available to any registered holder of the notes (or any holder of a book-entry interest in the notes designated by the registered holder):

- (1) its annual consolidated financial statements audited by internationally recognized independent accountants (or a local affiliate of such accountants) within 120 days of the end of each fiscal year, together with management's discussion and analysis of the results of the fiscal year;
- (2) semi-annual unaudited consolidated financial statements within 90 days of the end of each semi-annual period; and
- (3) quarterly consolidated unaudited financial statements for the three months ended March 31 and nine months ended September 30 of each fiscal year within 75 days of the end of the relevant period,

in each case prepared in accordance with GAAP.

If the Parent Guarantor has designated any of its Subsidiaries as Subsidiary Guarantors, then the quarterly and annual financial information required by the preceding paragraphs will include a reasonably detailed presentation, either on the face of the financial statements or in the footnotes thereto, of the consolidated financial condition and results of operations of the Parent Guarantor and the Relevant Subsidiaries separate from the financial condition and results of operations of the other Subsidiaries of the Parent Guarantor, as adjusted based on the assumption that each of the Parent Guarantor and each Relevant Subsidiary that is not the Issuer, a Subsidiary Guarantor or a Subsidiary of the Issuer, generates no income or loss, has no assets or liabilities and engages in no business operations other than the ownership of interests in the Issuer or one or more Subsidiary Guarantors (directly or indirectly through one or more Relevant Subsidiaries), but taking into account all transactions between or among the Parent Guarantor and any Relevant Subsidiary to eliminate intercompany transactions based on consolidation in accordance with GAAP.

The Issuer and the Subsidiary Guarantors (if any) will provide to the trustee together with the delivery of its financial statements, an Officers' Certificate of the Issuer's chief financial officer stating the combined Fixed Charge Coverage Ratio of the Issuer and the Subsidiary Guarantors (if any) with respect to the four most recent fiscal quarters and showing in reasonable detail the calculation of the Fixed Charge Coverage Ratio, including the arithmetic computations of each component of the Fixed Charge Coverage Ratio.

Events of Default and Remedies

Each of the following is an "*Event of Default*":

- (1) default for 30 days in the payment when due of interest, if any, on the notes;
- (2) default in the payment when due (at maturity, upon redemption or otherwise) of the principal of, or premium, if any, on the notes;
- (3) failure by the Issuer or any Guarantor to comply with the provisions described under the captions "— Repurchase at the Option of Holders — Change of Control," "— Repurchase at the Option of Holders — Asset Sales" or "— Certain Covenants — Merger, Consolidation or Sale of Assets";
- (4) failure by the Issuer or any Guarantor, for 60 days after notice to the Issuer by the trustee or the holders of at least 25% in aggregate principal amount of the notes then outstanding voting as a single class to comply with any of the other agreements in the indenture;
- (5) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by the Issuer, the Parent Guarantor or any Subsidiary Guarantor (or the payment of which is guaranteed by the Issuer or any

Subsidiary Guarantor), whether such Indebtedness or Guarantee now exists, or is created after the date of the indenture, if that default:

- (a) is caused by a failure to pay principal of, premium on, if any, or interest, if any, on, such Indebtedness prior to the expiration of the grace period provided in such Indebtedness on the date of such default (a "*Payment Default*"); or
- (b) results in the acceleration of such Indebtedness prior to its express maturity,

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default or the maturity of which has been so accelerated, aggregates (a) in the case of default by the Issuer or any Subsidiary Guarantor, to US\$30.0 million or more, or (b) in the case of default by the Parent Guarantor, to an amount which equals or exceeds 10% of the average equity market capitalization of the Parent Guarantor for 5 consecutive trading days preceding the date of such Payment Default or acceleration; *provided* that a default under this sub-paragraph (5) shall not be deemed to be cured by a subsequent increase in the Parent Guarantor's average equity market capitalization for 5 consecutive trading days from the date of such Payment Default or acceleration;

- (6) failure by the Issuer or any Subsidiary Guarantor to pay final judgments entered by a court or courts of competent jurisdiction aggregating in excess of US\$30.0 million (in each case net of any amounts that a reputable and creditworthy insurance company has acknowledged liability in writing), which judgments are not paid, discharged or stayed, for a period of 60 days;
- (7) except as permitted by the indenture, any Note Guarantee is held in any judicial proceeding to be unenforceable or invalid or ceases for any reason to be in full force and effect, or any Guarantor, or any Person acting on behalf of a Guarantor, denies or disaffirms its obligations under its Note Guarantee; *provided* that, for purposes of this clause (7), the Parent Guarantor's Note Guarantee will not be deemed to cease being in full force or effect solely because of any limitation pursuant to an OJK Regulation;
- (8) certain events of bankruptcy or insolvency described in the indenture with respect to the Issuer or any Guarantor; and
- (9) the revocation, suspension, final expiration or termination of the Coal Cooperation Agreement, other than (A) a voluntary suspension at the request of the Issuer that (i) results in a corresponding extension of the term of the Coal Cooperation Agreement for a period not shorter than the period of suspension, and (ii) does not result in the cessation or suspension of coal mining operations that are conducted pursuant to the Coal Cooperation Agreement for a period of more than 60 consecutive days, and (B) any other suspension, final expiration or termination that does not result in the cessation or suspension of coal mining operations that are at the time conducted pursuant to the Coal Cooperation Agreement for a period of more than 365 consecutive days.

In the case of an Event of Default arising from certain events of bankruptcy or insolvency, with respect to the Issuer or the Parent Guarantor, all outstanding notes will become due and payable immediately without further action or notice. If any other Event of Default occurs and is continuing, the trustee or the holders of at least 25% in aggregate principal amount of the then outstanding notes may declare all the notes to be due and payable immediately.

Subject to certain limitations, holders of a majority in aggregate principal amount of the then outstanding notes may direct the trustee in its exercise of any trust or power.

Subject to the provisions of the indenture relating to the duties of the trustee, the trustee will be under no obligation to exercise any of the rights or powers under the indenture at the request or direction of any holders of notes unless such holders have offered to the trustee indemnity or security or prefunding to its satisfaction against

any loss, liability or expense. Except to enforce the right to receive payment of principal, premium, if any, or interest, if any, when due, no holder of a note may pursue any remedy with respect to the indenture or the notes unless:

- (1) such holder has previously given the trustee written notice that an Event of Default is continuing;
- (2) holders of at least 25% in aggregate principal amount of the then outstanding notes make a written request to the trustee to pursue the remedy;
- (3) such holder or holders, provide to the trustee security, indemnity or prefunding satisfactory to the trustee against any loss, liability or expense;
- (4) the trustee does not comply with such request within 60 days after receipt of the security, prefunding or indemnity; and
- (5) during such 60-day period, holders of a majority in aggregate principal amount of the then outstanding notes do not give the trustee a direction inconsistent with such request.

Notwithstanding anything to the contrary in the indenture or any other document relating to the notes, in the event the trustee shall receive instructions from two or more groups of holders, each holding at least 25% in aggregate principal amount of the then outstanding notes, and the trustee believes (in its sole and absolute discretion and subject to such legal or other advice as it may deem appropriate) that such instructions are conflicting, the trustee may, in its sole and absolute discretion, exercise any one or more of the following options:

- (1) refrain from acting on any such conflicting instructions;
- (2) take the action requested by the holders of the highest percentage of the aggregate principal amount of the then outstanding notes, notwithstanding any other provisions of the indenture (and always subject to such indemnification and/or security and/or pre-funding as is satisfactory to the trustee); and
- (3) petition a court of competent jurisdiction for further instructions.

In all such instances where the trustee has acted or refrained from acting as outlined above, the trustee shall not be responsible for any losses or liability of any nature whatsoever to any party.

The holders of a majority in aggregate principal amount of the then outstanding notes by written notice to the trustee may, on behalf of the holders of all of the notes, rescind an acceleration or waive any existing Default or Event of Default and its consequences under the indenture, if the rescission would not conflict with any judgment or decree, except a continuing Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on the notes.

In the case of any Event of Default occurring on or after October 31, 2022 by reason of any willful action (or inaction) taken (or not taken) by or on behalf of the Issuer with the intention of avoiding payment of the premium that the Issuer would have had to pay if the Issuer then had elected to redeem the notes as described under the caption “— Optional Redemption,” then, upon acceleration of the Notes, an equivalent premium will also become and be immediately due and payable, to the extent permitted by law, anything in the indenture or in the notes to the contrary notwithstanding. If an Event of Default occurs prior to October 31, 2022 by reason of any willful action (or inaction) taken (or not taken) by or on behalf of the Issuer with the intention of avoiding the prohibition on redemption of the notes prior to such date, then upon acceleration of the notes, the Applicable Premium will also become and be immediately due and payable, to the extent permitted by law.

If an Event of Default occurs and is continuing, the trustee may pursue, in its own name or as trustee of an express trust, any available remedy by proceeding at law or in equity to collect the payment of principal of and interest on the notes or to enforce the performance of any provision of the notes or the indenture. The trustee may

maintain a proceeding even if it does not possess any of the notes or does not produce any of them in the proceeding.

The holders of at least a majority in aggregate principal amount of the outstanding notes may direct the time, method and place of conducting any proceeding for any remedy available to the trustee with respect to the notes or exercising any trust or power conferred on the trustee. However, the trustee may refuse to follow any direction that conflicts with law or the indenture that may involve the trustee in personal liability or cause it to expend or risk its own funds or otherwise incur any financial liability in following such direction, and may take any other action it deems proper that is not inconsistent with any such direction received from holders. In addition, the trustee will not be required to expend its own funds or risk any liability in following any direction from the holders if it has not been provided with indemnification, pre-funding or security satisfactory to it.

The Issuer is required to deliver to the trustee annually a statement regarding compliance with the indenture. Upon becoming aware of any Default or Event of Default (or at any time within 14 days of any request in writing by the trustee), the Issuer is required to deliver to the trustee a statement specifying such Default or Event of Default.

None of the trustee or any Agent is obligated to do anything to ascertain whether any Event of Default or Default has occurred or is continuing and will not be responsible to holders or any other person for any loss arising from any failure by it to do so, and each of the trustee and the Agents may assume that no such event has occurred and that the Issuer and the Parent Guarantor are performing all of their obligations under the indenture and the notes unless the trustee or the Agents, as the case may be, has received written notice of the occurrence of such event or facts establishing that a Default or an Event of Default has occurred or that the Issuer and the Parent Guarantor are not performing all of their obligations under the indenture and/or the notes.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee, incorporator or stockholder of the Issuer or any Guarantor, as such, will have any liability for any obligations of the Issuer or such Guarantor under the notes, the indenture, the applicable Note Guarantee or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of notes by accepting a note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the notes. The waiver may not be effective to waive liabilities under U.S. federal securities laws.

Legal Defeasance and Covenant Defeasance

The Issuer may at any time, at the option of its Board of Directors evidenced by a resolution set forth in an Officers' Certificate, elect to have all of its obligations discharged with respect to the outstanding notes and all obligations of the Guarantors discharged with respect to the Note Guarantees ("*Legal Defeasance*") except for:

- (1) the rights of holders of outstanding notes to receive payments in respect of the principal of, premium on, if any, or interest, if any, on, such notes when such payments are due from the trust referred to below;
- (2) the Issuer's obligations with respect to the notes concerning issuing temporary notes, registration of notes, mutilated, destroyed, lost or stolen notes and the maintenance of an office or agency for payment and money for security payments held in trust;
- (3) the rights, powers, trusts, duties and immunities of the trustee under the indenture, and the Issuer's and the Parent Guarantor's obligations in connection therewith; and
- (4) the Legal Defeasance and Covenant Defeasance provisions of the indenture.

In addition, the Issuer may, at its option and at any time, elect to have the obligations of the Issuer and the Parent Guarantor released with respect to certain covenants (including its obligation to make Change of Control Offers and Asset Sale Offers) that are described in the indenture ("*Covenant Defeasance*") and thereafter any

omission to comply with those covenants will not constitute a Default or Event of Default with respect to the notes. In the event Covenant Defeasance occurs, all Events of Default described under “*Events of Default and Remedies*” (except those relating to payments on the notes or bankruptcy, receivership, rehabilitation or insolvency events) will no longer constitute an Event of Default with respect to the notes.

In order to exercise either Legal Defeasance or Covenant Defeasance:

- (1) the Issuer must irrevocably deposit with the trustee (or another entity designated by the trustee for such purpose), in trust, for the benefit of the holders of the notes, cash in U.S. dollars, non-callable U.S. Government Obligations, or a combination thereof, in amounts as will be sufficient, in the opinion of an internationally recognized investment bank, appraisal firm or firm of independent accountants, to pay the principal of, premium on, if any, and interest, if any, on, the outstanding notes on the stated date for payment thereof or on the applicable redemption date, as the case may be, and the Issuer must specify whether the notes are being defeased to such stated date for payment or to a particular redemption date;
- (2) in the case of Legal Defeasance, the Issuer must deliver to the trustee an Opinion of Counsel reasonably acceptable to the trustee confirming that (a) the Issuer has received from, or there has been published by, the Internal Revenue Service a ruling or (b) since the date of the indenture, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel will confirm that, the holders of the outstanding notes will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;
- (3) in the case of Covenant Defeasance, the Issuer must deliver to the trustee an Opinion of Counsel to the trustee confirming that the holders of the outstanding notes will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;
- (4) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit (and any similar concurrent deposit relating to other Indebtedness), and the granting of Liens to secure such borrowings);
- (5) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than the indenture and the agreements governing any other Indebtedness being defeased, discharged or replaced) to which the Issuer or the Parent Guarantor is a party or by which the Issuer or the Parent Guarantor is bound;
- (6) the Issuer must deliver to the trustee an Officers’ Certificate stating that the deposit was not made by the Issuer with the intent of preferring the holders of notes over the other creditors of the Issuer with the intent of defeating, hindering, delaying or defrauding any creditors of the Issuer or others; and
- (7) the Issuer must deliver to the trustee an Officers’ Certificate and an Opinion of Counsel, each stating that all conditions precedent relating to the Legal Defeasance or the Covenant Defeasance have been complied with.

Amendment, Supplement and Waiver

Except as provided in the next two succeeding paragraphs, the indenture or the notes or the Note Guarantees may be amended or supplemented with the consent of the holders of at least a majority in aggregate principal amount of the then outstanding notes (including, without limitation, Additional Notes, if any) voting as a single class (including, without limitation, consents obtained in connection with a tender offer or exchange offer for, or purchase of, the notes), and any existing Default or Event of Default (other than a Default or Event

of Default in the payment of the principal of, premium on, if any, or interest, if any, on the notes, except a payment default resulting from an acceleration that has been rescinded) or compliance with any provision of the indenture or the notes or the Note Guarantees may be waived with the consent of the holders of a majority in aggregate principal amount of the then outstanding notes (including, without limitation, Additional Notes, if any) voting as a single class (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes).

Without the consent of each holder of notes affected, an amendment, supplement or waiver may not (with respect to any notes held by a non-consenting holder):

- (1) reduce the principal amount of notes whose holders must consent to an amendment, supplement or waiver;
- (2) reduce the principal of or change the fixed maturity of any note or alter or waive any of the provisions with respect to the redemption of the notes (except those provisions relating to the covenants described above under the caption “— Repurchase at the Option of Holders”);
- (3) reduce the rate of or change the time for payment of interest, including default interest, on any note;
- (4) waive a Default or Event of Default in the payment of principal of, premium on, if any, or interest, if any, on, the notes (except a rescission of acceleration of the notes by the holders of at least a majority in aggregate principal amount of the then outstanding notes and a waiver of the payment default that resulted from such acceleration);
- (5) make any note payable in money other than that stated in the notes;
- (6) make any change in the provisions of the indenture relating to waivers of past Defaults or the rights of holders of notes to receive payments of principal of, premium on, if any, or interest, if any, on the notes;
- (7) waive a redemption payment with respect to any note (other than a payment required by one of the covenants described above under the caption “— Repurchase at the Option of Holders”);
- (8) release any Guarantor from any of its obligations under its Note Guarantee or the indenture, except in accordance with the terms of the indenture; or
- (9) make any change in the preceding amendment and waiver provisions.

Notwithstanding the preceding, without the consent of any holder of notes, the Issuer, the Guarantors and the trustee may amend or supplement the indenture, the notes or the Note Guarantees:

- (1) to cure any ambiguity, defect or inconsistency provided that such actions pursuant to this clause (1) do not materially and adversely affect the interests of the holders;
- (2) to provide for uncertificated notes in addition to or in place of certificated notes;
- (3) to provide for the assumption of the Issuer’s or a Guarantor’s obligations to holders of notes and the Note Guarantees in the case of a merger or consolidation or sale of all or substantially all of the Issuer’s or a Guarantor’s assets, as applicable;
- (4) to make any change that would provide any additional rights or benefits to the holders of notes or that does not adversely affect the legal rights under the indenture of any holder;
- (5) to conform the text of the indenture, the notes or the Note Guarantees to any provision of this Description of Notes to the extent that such provision in this Description of Notes was intended to be

a verbatim recitation of a provision of the indenture, the notes or the Note Guarantees, which intent may be evidenced by an Officers' Certificate to that effect;

- (6) to provide for the issuance of Additional Notes in accordance with the limitations set forth in the indenture as of the date of the indenture;
- (7) to evidence or provide for the acceptance and appointment under the indenture of a successor trustee;
- (8) in any case where a supplemental indenture is required or permitted to be entered into pursuant to the provisions of the indenture without the consent of any holder;
- (9) to provide for collateral to secure the notes or the Note Guarantees;
- (10) to comply with the rules of any applicable securities depositary; and
- (11) to allow any Guarantor to execute a supplemental indenture and/or a Note Guarantee.

In connection with the matters indicated above, the trustee shall be entitled to rely conclusively on an Opinion of Counsel and an Officer's Certificate to the effect that the entry into such amendment, supplement or waiver is authorized or permitted.

Satisfaction and Discharge

The indenture will be discharged and will cease to be of further effect as to all notes issued thereunder, when:

- (1) either:
 - (a) all notes that have been authenticated, except lost, stolen or destroyed notes that have been replaced or paid and notes for whose payment money has been deposited in trust and thereafter repaid to the Issuer, have been delivered to the trustee for cancellation; or
 - (b) all notes that have not been delivered to the trustee for cancellation have become due and payable by reason of the mailing of a notice of redemption or otherwise or will become due and payable within one year and the Issuer or the Parent Guarantor has irrevocably deposited or caused to be deposited with the trustee as trust funds in trust solely for the benefit of the holders, cash in U.S. dollars, non-callable U.S. Government Obligations, or a combination thereof, in amounts as will be sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire Indebtedness on the notes not delivered to the trustee for cancellation for principal of, premium on, if any, and interest, if any, on the notes to the date of maturity or redemption;
- (2) in respect of clause 1(b), no Default or Event of Default has occurred and is continuing on the date of the deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit and any similar deposit relating to other Indebtedness and, in each case, the granting of Liens to secure such borrowings) and the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which the Issuer or the Parent Guarantor is a party or by which the Issuer or the Parent Guarantor is bound (other than with respect to the borrowing of funds to be applied concurrently to make the deposit required to effect such satisfaction and discharge and any similar concurrent deposit relating to other Indebtedness, and in each case the granting of Liens to secure such borrowings);
- (3) the Issuer or the Parent Guarantor has paid or caused to be paid all sums payable by it under the indenture; and

- (4) the Issuer has delivered irrevocable instructions to the trustee under the indenture to apply the deposited money toward the payment of the notes at maturity or on the redemption date, as the case may be.

In addition, the Issuer must deliver an Officers' Certificate and an Opinion of Counsel to the trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

Concerning the Trustee and the Paying Agent

The Bank of New York Mellon is to be appointed as trustee under the indenture (the "trustee") and as registrar ("Registrar"), paying agent (the "paying agent") and transfer agent (the "transfer agent," and together with the paying agent, the "Agents") with regard to the notes. The indenture provides that in case an Event of Default has occurred and is continuing, the trustee will be required, in the exercise of its power, to use the degree of care of a prudent man in the conduct of his own affairs. Subject to such provisions, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of notes, unless such holder has delivered written direction to it and offered to the trustee indemnity, security or prefunding satisfactory to it against any loss, liability or expense. If a Default or an Event of Default occurs and is continuing, all Agents will be required to act on the trustee's direction.

The trustee is permitted to engage in other transactions with the Issuer or the Parent Guarantor and their Affiliates and shall not be obligated to account for any profits therefrom and no trustee and no director or officer of any corporation being a trustee hereof shall by reason of the fiduciary position of such trustee be in any way precluded from making any contracts or entering into any transactions in the ordinary course of business with the Issuer or the Parent Guarantor, or any person or body corporate directly or indirectly associated with the Issuer or the Parent Guarantor, or from accepting the trusteeship of any other debenture stock, debentures or securities of the Issuer or the Parent Guarantor or any person or body corporate directly or indirectly associated with the Issuer or the Parent Guarantor, and neither the trustee nor any such director or officer shall be accountable to the holders, the Issuer or the Parent Guarantor, or any person or body corporate directly or indirectly associated the Issuer or the Parent Guarantor, for any profit, fees, commissions, interest, discounts or share of brokerage earned, arising or resulting from any such contracts or transactions and the trustee and any such director or officer shall also be at liberty to retain the same for its or his own benefit.

Neither the trustee nor the Paying Agent shall be responsible for the performance by any other person appointed by the Issuer in relation to the notes and, unless notified in writing to the contrary, shall assume that the same are being duly performed. Neither the trustee nor the Paying Agent shall be liable to any holder or any other person for any action taken by the holders, the trustee or the Paying Agent or in accordance with the instructions of the holders. Both the trustee and the Paying Agent shall be entitled to rely on any written direction of the holders which has been duly given by the holders in accordance with the indenture. Neither the trustee nor the Paying Agent shall be deemed to have knowledge of any event unless it has been actually notified of such event or have actual knowledge thereof. The trustee is entitled to rely on all instructions, notices, declarations, calculations and certifications received pursuant to the indenture without investigating the accuracy, authenticity and validity of these instructions, notices, declarations, calculations and certifications. Pursuant to the terms of the indenture or the notes, the Issuer or the Parent Guarantor will reimburse the trustee for all incurred expenses.

None of the trustee, the Agents or any of their respective agents will have any responsibility or be liable for any aspect of the records relating to the book-entry interests.

Additional Information

Anyone who receives this offering memorandum may obtain a copy of the indenture without charge by writing to PT Adaro Indonesia, Menara Karya 22nd-23rd Floor, Jalan H.R. Rasuna Said, Blok X-5, Kav. 1-2, Jakarta 12950, Indonesia, Attention: Chief Financial Officer.

Consent to Jurisdiction; Service of Process

The Issuer and each Guarantor will irrevocably:

- (1) submit to the non-exclusive jurisdiction of any United States Federal or New York State court located in the Borough of Manhattan, The City of New York in connection with any suit, action or proceeding arising out of, or relating to the notes, the Note Guarantees, the indenture or any transaction contemplated thereby; and
- (2) designate and appoint Cogency Global Inc., 10 E. 40th Street, 10th Floor, New York, NY 10016, USA, as its authorized agent for receipt of service of process in any such suit, action or proceeding.

Indemnification for Judgment Currency

The obligations of the Issuer or any Guarantor to any holder of the notes or the trustee under the Indenture, the notes or the Note Guarantees will, notwithstanding any judgment in a currency (the “*Judgment Currency*”) other than U.S. dollars, be discharged only to the extent that on the day following receipt by such party of any amount in the judgment currency, such party may in accordance with normal banking procedures purchase U.S. dollars with the judgment currency. If the amount of U.S. dollars so purchased is less than the amount originally to be paid to such party in U.S. dollars, the Issuer and the Parent Guarantor agree, and each Subsidiary Guarantor will agree, jointly and severally, as a separate obligation and notwithstanding such judgment, to the extent permitted by applicable law, to pay the difference, and, if the amount of U.S. dollars so purchased exceeds the amount originally to be paid to such party, such party agrees to pay to or for the account of such payor such excess; *provided* that such party shall not have any obligation to pay any such excess as long as an event of default has occurred and is continuing, in which case such excess may be applied by such party to such obligations.

Governing Law

The indenture, the notes and the Note Guarantees will be governed by the laws of the State of New York. The issuance of the notes and the Note Guarantees will also be subject to a certain extent to the respective laws of the jurisdiction of formation of the Issuer and the Guarantors.

Book-Entry, Delivery and Form

The notes are being offered and sold to qualified institutional buyers in reliance on Rule 144A (“*Rule 144A Notes*”) that are also qualified purchasers (as defined in Section 2(a)(51) of the Investment Company Act). The notes also may be offered and sold in offshore transactions in reliance on Regulation S (“*Regulation S Notes*”). Except as set forth below, the notes will be issued in registered, global form in denominations of US\$250,000 or higher integral multiples of US\$1,000. Notes will be issued at the closing of this offering only against payment in immediately available funds.

Rule 144A Notes initially will be represented by one or more notes in registered, global form without interest coupons (collectively, the “*Rule 144A Global Notes*”). Regulation S Notes initially will be represented by one or more notes in registered, global form without interest coupons (collectively, the “*Regulation S Global Notes*” and, together with the Rule 144A Global Notes, the “*Global Notes*”). The Global Notes will be deposited upon issuance with The Bank of New York Mellon as custodian for The Depository Trust Company (“*DTC*”), in New York, New York, and registered in the name of DTC or its nominee, in each case, for credit to an account of a direct or indirect participant in DTC as described below. Through and including the 40th day after the later of the commencement of this offering and the closing of this offering (such period through and including such 40th day, the “*Restricted Period*”), beneficial interests in the Regulation S Global Notes may be held only through the Euroclear System (“*Euroclear*”) and Clearstream Banking, S.A. (“*Clearstream*”) (as indirect participants in DTC), unless transferred to a person that takes delivery through a Rule 144A Global Note in accordance with the certification requirements described below. Beneficial interests in the Rule 144A Global Notes may not be exchanged for beneficial interests in the Regulation S Global Notes at any time except in the limited circumstances described below. See “— Exchanges between Regulation S Notes and Rule 144A Notes.”

Except as set forth below, the Global Notes may be transferred, in whole and not in part, only to another nominee of DTC or to a successor of DTC or its nominee. Beneficial interests in the Global Notes may not be exchanged for definitive notes in registered certificated form (“*Certificated Notes*”) except in the limited circumstances described below. See “— Exchange of Global Notes for Certificated Notes.” Except in the limited circumstances described below, owners of beneficial interests in the Global Notes will not be entitled to receive physical delivery of notes in certificated form.

Rule 144A Notes (including beneficial interests in the Rule 144A Global Notes) will be subject to certain restrictions on transfer and will bear a restrictive legend as described under “Transfer Restrictions.” Regulation S Notes will also bear the legend as described under “Transfer Restrictions.” In addition, transfers of beneficial interests in the Global Notes will be subject to the applicable rules and procedures of DTC and its direct or indirect participants (including, if applicable, those of Euroclear and Clearstream), which may change from time to time.

Depository Procedures

The following description of the operations and procedures of DTC, Euroclear and Clearstream are provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them. The Issuer takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised the Issuer that DTC is a limited-purpose trust company created to hold securities for its participating organizations (collectively, the “*Participants*”) and to facilitate the clearance and settlement of transactions in those securities between the Participants through electronic book-entry changes in accounts of its Participants. The Participants include securities brokers and dealers (including the initial purchasers), banks, trust companies, clearing corporations and certain other organizations. Access to DTC’s system is also available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a Participant, either directly or indirectly (collectively, the “*Indirect Participants*”). Persons who are not Participants may beneficially own securities held by or on behalf of DTC only through the Participants or the Indirect Participants. The ownership interests in, and transfers of ownership interests in, each security held by or on behalf of DTC are recorded on the records of the Participants and Indirect Participants.

DTC has also advised the Issuer that, pursuant to procedures established by it:

- (1) upon deposit of the Global Notes, DTC will credit the accounts of the Participants designated by the initial purchasers with portions of the principal amount of the Global Notes; and
- (2) ownership of these interests in the Global Notes will be shown on, and the transfer of ownership of these interests will be effected only through, records maintained by DTC (with respect to the Participants) or by the Participants and the Indirect Participants (with respect to other owners of beneficial interest in the Global Notes).

Investors in the Rule 144A Global Notes who are Participants may hold their interests therein directly through DTC. Investors in the Rule 144A Global Notes who are not Participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) which are Participants. Investors in the Regulation S Global Notes must initially hold their interests therein through Euroclear or Clearstream, if they are participants in such systems, or indirectly through organizations that are participants. After the expiration of the Restricted Period (but not earlier), investors may also hold interests in the Regulation S Global Notes through Participants in the DTC system other than Euroclear and Clearstream. Euroclear and Clearstream will hold interests in the Regulation S Global Notes on behalf of their participants through customers’ securities accounts in their respective names on the books of their respective depositories, which are Euroclear Bank S.A./N.V., as operator of Euroclear, and Citibank, N.A., as operator of Clearstream. All interests in a Global Note, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC. Those interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such

systems. The laws of some states require that certain Persons take physical delivery in definitive form of securities that they own. Consequently, the ability to transfer beneficial interests in a Global Note to such Persons will be limited to that extent. Because DTC can act only on behalf of the Participants, which in turn act on behalf of the Indirect Participants, the ability of a Person having beneficial interests in a Global Note to pledge such interests to Persons that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

Except as described below, owners of interests in the Global Notes will not have notes registered in their names, will not receive physical delivery of notes in certificated form and will not be considered the registered owners or “holders” thereof under the indenture for any purpose.

Payments in respect of the principal of, premium on, if any, and interest, if any, on a Global Note registered in the name of DTC or its nominee will be payable to DTC in its capacity as the registered holder under the indenture. Under the terms of the indenture, the Issuer and the trustee will treat the Persons in whose names the notes, including the Global Notes, are registered as the owners of the notes for the purpose of receiving payments and for all other purposes. Consequently, neither the Issuer, the trustee nor any agent of the Issuer or the trustee has or will have any responsibility or liability for:

- (1) any aspect of DTC’s records or any Participant’s or Indirect Participant’s records relating to or payments made on account of beneficial ownership interest in the Global Notes or for maintaining, supervising or reviewing any of DTC’s records or any Participant’s or Indirect Participant’s records relating to the beneficial ownership interests in the Global Notes; or
- (2) any other matter relating to the actions and practices of DTC or any of its Participants or Indirect Participants.

DTC has advised the Issuer that its current practice, upon receipt of any payment in respect of securities such as the notes (including principal and interest), is to credit the accounts of the relevant Participants with the payment on the payment date unless DTC has reason to believe that it will not receive payment on such payment date. Each relevant Participant is credited with an amount proportionate to its beneficial ownership of an interest in the principal amount of the relevant security as shown on the records of DTC. Payments by the Participants and the Indirect Participants to the beneficial owners of notes will be governed by standing instructions and customary practices and will be the responsibility of the Participants or the Indirect Participants and will not be the responsibility of DTC, the trustee or the Issuer. Neither the Issuer nor the trustee will be liable for any delay by DTC or any of the Participants or the Indirect Participants in identifying the beneficial owners of the notes, and the Issuer and the trustee may conclusively rely on and will be protected in relying on instructions from DTC or its nominee for all purposes.

Subject to the transfer restrictions set forth under “Transfer Restrictions,” transfers between the Participants will be effected in accordance with DTC’s procedures, and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Subject to compliance with the transfer restrictions applicable to the notes described herein, cross-market transfers between the Participants, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC’s rules on behalf of Euroclear or Clearstream, as the case may be, by their respective depositories; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective depository to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant Global Note in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream.

DTC has advised the Issuer that it will take any action permitted to be taken by a holder of notes only at the direction of one or more Participants to whose account DTC has credited the interests in the Global Notes and only in respect of such portion of the aggregate principal amount of the notes as to which such Participant or Participants has or have given such direction. However, if there is an Event of Default under the notes, DTC reserves the right to exchange the Global Notes for legended notes in certificated form, and to distribute such notes to its Participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the Rule 144A Global Notes and the Regulation S Global Notes among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. None of the Issuer, the trustee and any of their respective agents will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Exchange of Global Notes for Certificated Notes

A Global Note is exchangeable for Certificated Notes if:

- (1) DTC (a) notifies the Issuer that it is unwilling or unable to continue as depository for the Global Notes or (b) has ceased to be a clearing agency registered under the Exchange Act and, in either case, the Issuer fails to appoint a successor depository;
- (2) the Issuer, at its option, notifies the trustee in writing that it elects to cause the issuance of the Certificated Notes; or
- (3) there has occurred and is continuing a Default or Event of Default with respect to the notes.

In all cases, Certificated Notes delivered in exchange for any Global Note or beneficial interests in Global Notes will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depository (in accordance with its customary procedures) and will bear the applicable restrictive legend referred to in “Transfer Restrictions,” unless that legend is not required by applicable law.

So long as the notes are listed on the Singapore Exchange Securities Trading Limited (“SGX-ST”) and the rules of the SGX-ST so require, if any Global Note is exchanged for Certificated Notes, the Issuer (1) will appoint and maintain a paying agent in Singapore, where the notes may be presented or surrendered for payment or redemption, and (2) make through the SGX-ST an announcement of the exchange that will include all material information with respect to the delivery of the Certificated Notes, including details of the paying agent in Singapore.

Exchanges Between Regulation S Notes and Rule 144A Notes

Prior to the expiration of the Restricted Period, beneficial interests in the Regulation S Global Note may be exchanged for beneficial interests in the Rule 144A Global Note only if:

- (1) such exchange occurs in connection with a transfer of the notes pursuant to Rule 144A; and
- (2) the transferor first delivers to the trustee a written certificate (in the form provided in the indenture) to the effect that the notes are being transferred to a Person:
 - (a) who the transferor reasonably believes to be a qualified institutional buyer (that is also a qualified purchaser within the meaning of the Investment Company Act) within the meaning of Rule 144A;
 - (b) purchasing for its own account or the account of a qualified institutional buyer (that is also a qualified purchaser within the meaning of the Investment Company Act) in a transaction meeting the requirements of Rule 144A; and

- (c) in accordance with all applicable securities laws of the states of the United States and other jurisdictions.

Beneficial interests in a Rule 144A Global Note may be transferred to a Person who takes delivery in the form of an interest in the Regulation S Global Note, whether before or after the expiration of the Restricted Period, only if the transferor first delivers to the trustee a written certificate (in the form provided in the indenture) to the effect that such transfer is being made in accordance with Rule 903 or 904 of Regulation S or Rule 144 (if available) and that, if such transfer occurs prior to the expiration of the Restricted Period, the interest transferred will be held immediately thereafter through Euroclear or Clearstream.

Transfers involving exchanges of beneficial interests between the Regulation S Global Notes and the Rule 144A Global Notes will be effected by DTC by means of an instruction originated by the trustee through the DTC Deposit/Withdraw at Custodian system. Accordingly, in connection with any such transfer, appropriate adjustments will be made to reflect a decrease in the principal amount of the Regulation S Global Note and a corresponding increase in the principal amount of the Rule 144A Global Note or vice versa, as applicable. Any beneficial interest in one of the Global Notes that is transferred to a Person who takes delivery in the form of an interest in the other Global Note will, upon transfer, cease to be an interest in such Global Note and will become an interest in the other Global Note and, accordingly, will thereafter be subject to all transfer restrictions and other procedures applicable to beneficial interests in such other Global Note for so long as it remains such an interest. The policies and practices of DTC may prohibit transfers of beneficial interests in the Regulation S Global Note prior to the expiration of the Restricted Period.

Same Day Settlement and Payment

The Issuer will make payments in respect of the notes represented by the Global Notes, including principal, premium, if any, and interest, if any, by wire transfer of immediately available funds to the accounts specified by DTC or its nominee. The Issuer will make all payments of principal, premium, if any, and interest, if any, with respect to Certificated Notes by wire transfer of immediately available funds to the accounts specified by the holders of the Certificated Notes. The Issuer expects that secondary trading in any Certificated Notes will also be settled in immediately available funds.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a Global Note from a Participant will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a business day for Euroclear and Clearstream) immediately following the settlement date of DTC. DTC has advised the Issuer that cash received in Euroclear or Clearstream as a result of sales of interests in a Global Note by or through a Euroclear or Clearstream participant to a Participant will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Certain Definitions

Set forth below are certain defined terms used in the indenture. Reference is made to the indenture for a full disclosure of all defined terms used therein, as well as any other capitalized terms used herein for which no definition is provided.

“Acquired Debt” means, with respect to any specified Person:

- (1) Indebtedness of any other Person existing at the time such other Person is merged with or into or became a Subsidiary of such specified Person, whether or not such Indebtedness is incurred in connection with, or in contemplation of, such other Person merging with or into, or becoming a Subsidiary of, such specified Person; and
- (2) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

“*Affiliate*” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, “control,” as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; *provided* that beneficial ownership of 20% or more of the Voting Stock of a Person will be deemed to be control. For purposes of this definition, the terms “controlling,” “controlled by” and “under common control with” have correlative meanings.

“*Applicable Premium*” means, with respect to any note on any redemption date, the greater of:

- (1) 1.0% of the principal amount of the note; or
- (2) the excess of:
 - (a) the present value at such redemption date of (i) the redemption price of the note at October 31, 2022, (such redemption price being set forth in the table appearing above under the caption “— Optional Redemption”) plus (ii) all required interest payments due on the note through October 31, 2022, (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the Treasury Rate as of such redemption date plus 50 basis points; over
 - (b) the principal amount of the note.

“*Asset Sale*” means the sale, lease, conveyance or other disposition of any assets or rights; *provided* that, the sale, lease, conveyance or other disposition of all or substantially all of the assets of the Issuer will be governed by the provisions of the indenture described above under the caption “— Repurchase at the Option of Holders — Change of Control” and/or the provisions described above under the caption “— Certain Covenants — Merger, Consolidation or Sale of Assets” and not by the provisions of the Asset Sale covenant.

Notwithstanding the preceding, none of the following items will be deemed to be an Asset Sale:

- (1) any single transaction or series of related transactions that involves assets having a Fair Market Value of less than US\$10.0 million;
- (2) the sale, lease or other transfer of products, services or accounts receivable in the ordinary course of business and any sale or other disposition of damaged, worn-out or obsolete assets in the ordinary course of business (including the abandonment or other disposition of intellectual property that is, in the reasonable judgment of the Issuer, no longer economically practicable to maintain or useful in the conduct of the business of the Issuer);
- (3) licenses and sublicenses of software or intellectual property in the ordinary course of business;
- (4) any surrender or waiver of contract rights or settlement, release, recovery on or surrender of contract, tort or other claims in the ordinary course of business;
- (5) the granting of Liens not prohibited by the covenant described above under the caption “— Liens”;
- (6) the sale or other disposition of cash or cash equivalents;
- (7) any transfer of assets to the government under the Coal Cooperation Agreement;
- (8) any amendments or modifications to, or waivers under, the Coal Cooperation Agreement; and
- (9) the exchange of assets between the Issuer or a Subsidiary Guarantor and another Person; *provided* that (i) the assets received by the Issuer or the Subsidiary Guarantor will immediately constitute, be

part of, or be used in a Permitted Business by the Issuer or the Subsidiary Guarantor, (ii) the assets received are of a comparable Fair Market Value to the assets exchanged, and (iii) any cash or cash equivalents received by the Issuer or the Subsidiary Guarantor from the exchange must be applied in accordance with the covenant described above under the caption “Repurchase at the Option of Holders — Asset Sales.”

“*Asset Sale Offer*” has the meaning assigned to that term in the indenture governing the notes.

“*Beneficial Owner*” has the meaning assigned to such term in Rule 13d-3 and Rule 13d-5 under the Exchange Act, except that in calculating the beneficial ownership of any particular “person” (as that term is used in Section 13(d)(3) of the Exchange Act), such “person” will be deemed to have beneficial ownership of all securities that such “person” has the right to acquire by conversion or exercise of other securities, whether such right is currently exercisable or is exercisable only after the passage of time. The terms “beneficially owns” and “beneficially owned” have a corresponding meaning.

“*Board of Directors*” means:

- (1) with respect to a corporation, the board of directors of the corporation or any committee thereof duly authorized to act on behalf of such board;
- (2) with respect to a partnership, the Board of Directors of the general partner of the partnership;
- (3) with respect to a limited liability company, the managing member or members or any controlling committee of managing members thereof; and
- (4) with respect to any other Person, the board or committee of such Person serving a similar function.

“*Capital Lease Obligation*” means, at the time any determination is to be made, the amount of the liability in respect of a capital lease that would at that time be required to be capitalized on a balance sheet prepared in accordance with GAAP, and the Stated Maturity thereof shall be the date of the last payment of rent or any other amount due under such lease prior to the first date upon which such lease may be prepaid by the lessee without payment of a penalty but excluding, in all cases, any leases that would be considered an operating lease in accordance with GAAP as in effect on the original issue date of the notes.

“*Capital Stock*” means:

- (1) in the case of a corporation, corporate stock;
- (2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;
- (3) in the case of a partnership or limited liability company, partnership interests (whether general or limited) or membership interests; and
- (4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person, but excluding from all of the foregoing any debt securities convertible into Capital Stock, whether or not such debt securities include any right of participation with Capital Stock.

“*Change of Control*” means the occurrence of any of the following:

- (1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Issuer to any Person (including any “person” (as that term is used in Section 13(d)(3) of the Exchange Act));

- (2) the adoption of a plan relating to the liquidation or dissolution of the Issuer; or
- (3) the Parent Guarantor ceasing to own, directly or indirectly, greater than 60% of the Voting Stock of the Issuer.

“*Coal Cooperation Agreement*” means the agreement entered into by and between the Issuer and Perusahaan Negara Tambang Batubara dated November 19, 1982, as novated to the Government of the Republic of Indonesia by Amendment to Agreement No. J2/Ji.DU/52/82 dated June 27, 1997, and as agreed and approved by the Minister of Mines and Energy on October 7, 1997 for and on behalf of the Government of the Republic of Indonesia, as lastly amended by amendment dated January 17, 2018, as extended, replaced, or converted from time to time and/or any Special Mining Business License for Production Operation extension (*Izin Usaha Pertambangan Khusus Operasi Produksi perpanjangan (IUPK-OPP)*) (or any similar license) that is issued in lieu of such agreement.

“*Consolidated EBITDA*” means, with respect to any specified Person for any period, the Consolidated Net Income of such Person for such period *plus*, without duplication:

- (1) an amount equal to any extraordinary loss plus any net loss realized by such Person or any of its Subsidiaries in connection with an Asset Sale, to the extent such losses were deducted in computing such Consolidated Net Income; *plus*
- (2) provision for taxes based on income or profits of such Person and its Subsidiaries for such period, to the extent that such provision for taxes was deducted in computing such Consolidated Net Income; *plus*
- (3) the Fixed Charges of such Person and its Subsidiaries for such period, to the extent that such Fixed Charges were deducted in computing such Consolidated Net Income; *plus*
- (4) any foreign currency translation losses (including losses related to currency remeasurements of Indebtedness) of such Person and its Subsidiaries for such period, to the extent that such losses were taken into account in computing such Consolidated Net Income; *plus*
- (5) depreciation, amortization (including amortization of intangibles but excluding amortization of prepaid cash expenses that were paid in a prior period) and other non-cash charges and expenses (excluding any such non-cash charge or expense to the extent that it represents an accrual of or reserve for cash charges or expenses in any future period and any amortization of a prepaid cash charge or expense that was paid in a prior period) of such Person and its Subsidiaries for such period to the extent that such depreciation, amortization and other non-cash charges or expenses were deducted in computing such Consolidated Net Income; *plus*
- (6) amortization and other non-cash charges and expenses of the Issuer for such period to the extent such amortization and other non-cash charges or expenses were deducted in computing such Consolidated Net Income and represent an amortization or reduction of (i) advances to a Subsidiary of the Parent Guarantor or (ii) prepayments of cash charges or expenses, in each case paid in a prior period; *provided* that such advance or prepayment was paid before the date of the indenture; *minus*
- (7) any foreign currency translation gains (including gains related to currency remeasurements of Indebtedness) of such Person and its Subsidiaries for such period, to the extent that such gains were taken into account in computing such Consolidated Net Income; *minus*
- (8) non-cash items increasing such Consolidated Net Income for such period, other than the accrual of revenue in the ordinary course of business,

in each case, on a consolidated basis and determined in accordance with GAAP.

“*Consolidated Net Income*” means, with respect to any specified Person for any period, the aggregate of the net income (loss) of such Person and its Subsidiaries for such period, on a consolidated basis, determined in accordance with GAAP; *provided that*:

- (1) all extraordinary gains (but not losses) and all gains (but not losses) realized in connection with any Asset Sale or the disposition of securities or the early extinguishment of Indebtedness, together with any related provision for taxes on any such gain, will be excluded;
- (2) the net income (but not loss) of any Person that is not a Subsidiary or that is accounted for by the equity method of accounting will be included only to the extent of the amount of dividends or similar distributions paid in cash to the specified Person or a Subsidiary of the Person;
- (3) the net income (but not loss) of any Subsidiary will be excluded to the extent that the declaration or payment of dividends or similar distributions by that Subsidiary of that net income is not at the date of determination permitted without any prior governmental approval (that has not been obtained) or, directly or indirectly, by operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to that Subsidiary or its stockholders;
- (4) the cumulative effect of a change in accounting principles will be excluded;
- (5) non-cash gains and losses attributable to movement in the mark-to-market valuation of Hedging Obligations pursuant to GAAP.

“*continuing*” means, with respect to any Default or Event of Default, that such Default or Event of Default has not been cured or waived.

“*Credit Facilities*” means, one or more debt facilities or commercial paper facilities, in each case, with banks or other institutional lenders providing for revolving credit loans, term loans, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, modified, renewed, refunded, replaced in any manner (whether upon or after termination or otherwise) or refinanced (including by means of sales of debt securities to institutional investors) in whole or in part from time to time.

“*Default*” means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

“*Disqualified Stock*” means any Capital Stock that, by its terms (or by the terms of any security into which it is convertible, or for which it is exchangeable, in each case, at the option of the holder of the Capital Stock), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option of the holder of the Capital Stock, in whole or in part, on or prior to the date that is 91 days after the date on which the notes mature. The amount of Disqualified Stock deemed to be outstanding at any time for purposes of the indenture will be the maximum amount that the Issuer may become obligated to pay upon the maturity of, or pursuant to any mandatory redemption provisions of, such Disqualified Stock, exclusive of accrued dividends.

“*Equity Interests*” means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

“*Equity Offering*” means, with respect to the Issuer, a public or private sale of Equity Interests of the Issuer by the Issuer (other than Disqualified Stock and other than to the Parent Guarantor or a Subsidiary of the Parent Guarantor), and with respect to the Parent Guarantor, a public or private sale of Equity Interests of the Parent Guarantor (other than to the Issuer or a Subsidiary of the Issuer or the Parent Guarantor) to the extent that the net proceeds therefrom are contributed to the common equity capital of the Issuer.

“*Existing Indebtedness*” means all Indebtedness of the Issuer in existence on the date of the indenture, until such amounts are repaid.

“*Fair Market Value*” means, with respect to any transaction entered or to be entered into by a specified Person, the value that would be paid by a willing buyer to an unaffiliated willing seller in a transaction not involving distress or necessity of either party, determined in good faith by the Board of Directors of the specified Person (unless otherwise provided in the indenture).

“*Fitch*” means Fitch Ratings, Inc. and any of its successors.

“*Fixed Charge Coverage Ratio*” means with respect to any specified Person for any period, the ratio of the Consolidated EBITDA of such Person or Persons for such period to the Fixed Charges of such Person or Persons for such period. In the event that the specified Person or any of its Subsidiaries incurs, assumes, guarantees, repays, repurchases, redeems, defeases or otherwise discharges any Indebtedness (other than ordinary working capital borrowings) or issues, repurchases or redeems preferred stock subsequent to the commencement of the period for which the Fixed Charge Coverage Ratio is being calculated and on or prior to the date on which the event for which the calculation of the Fixed Charge Coverage Ratio is made (the “*Calculation Date*”), then the Fixed Charge Coverage Ratio will be calculated giving pro forma effect (in accordance with Regulation S-X under the Securities Act) to such incurrence, assumption, Guarantee, repayment, repurchase, redemption, defeasance or other discharge of Indebtedness, or such issuance, repurchase or redemption of preferred stock, and the use of the proceeds therefrom, as if the same had occurred at the beginning of the applicable four-quarter reference period.

In addition, for purposes of calculating the Fixed Charge Coverage Ratio:

- (1) acquisitions that have been made by the specified Person or any of its Subsidiaries, including through mergers or consolidations, or any Person or any of its Subsidiaries acquired by the specified Person or any of its Subsidiaries, and including all related financing transactions and including increases in ownership of Subsidiaries, during the four-quarter reference period or subsequent to such reference period and on or prior to the Calculation Date, or that are to be made on the Calculation Date, will be given pro forma effect (in accordance with Regulation S-X under the Securities Act) as if they had occurred on the first day of the four-quarter reference period;
- (2) the Consolidated EBITDA attributable to discontinued operations, as determined in accordance with GAAP, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded;
- (3) the Fixed Charges attributable to discontinued operations, as determined in accordance with GAAP, and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded, but only to the extent that the obligations giving rise to such Fixed Charges will not be obligations of the specified Person or any of its Subsidiaries following the Calculation Date;
- (4) any Person that is a Subsidiary on the Calculation Date will be deemed to have been a Subsidiary at all times during such four-quarter period;
- (5) any Person that is not a Subsidiary on the Calculation Date will be deemed not to have been a Subsidiary at any time during such four-quarter period; and
- (6) if any Indebtedness bears a floating rate of interest, the interest expense on such Indebtedness will be calculated as if the rate in effect on the Calculation Date had been the applicable rate for the entire period (taking into account any Hedging Obligation applicable to such Indebtedness if such Hedging Obligation has a remaining term as at the Calculation Date in excess of 12 months).

“*Fixed Charges*” means, with respect to any specified Person for any period, the sum, without duplication, of:

- (1) the consolidated interest expense of such Person and its Subsidiaries for such period, whether paid or accrued, including, without limitation, amortization of debt issuance costs and original issue discount, non-cash interest payments, the interest component of any deferred payment obligations, the interest component of all payments associated with Capital Lease Obligations, commissions, discounts and other fees and charges incurred in respect of letter of credit or bankers’ acceptance financings, and net of the effect of all payments made or received pursuant to Hedging Obligations in respect of interest rates; *plus*
- (2) the consolidated interest expense of such Person and its Subsidiaries that was capitalized during such period; *plus*
- (3) any interest on Indebtedness of another Person that is guaranteed by such Person or one of its Subsidiaries or secured by a Lien on assets of such Person or one of its Subsidiaries, whether or not such Guarantee or Lien is called upon; *plus*
- (4) the product of (a) all dividends, whether paid or accrued (without duplication of any accrual in any prior period) and whether or not in cash, on any series of preferred stock of such Person or any of its Subsidiaries, other than dividends on Equity Interests payable solely in Equity Interests of the Issuer (other than Disqualified Stock) or to the Issuer or a Subsidiary of the Issuer, *times* (b) a fraction, the numerator of which is one and the denominator of which is one minus the then current combined federal, state and local statutory tax rate of such Person, expressed as a decimal, in each case, determined on a consolidated basis in accordance with GAAP.

“*GAAP*” means generally accepted accounting principles in Indonesia in effect from time to time, which as of the date of the indenture are Indonesian Financial Accounting Standards.

“*Guarantee*” means a guarantee other than by endorsement of negotiable instruments for collection in the ordinary course of business, direct or indirect, in any manner including, without limitation, by way of a pledge of assets or through letters of credit or reimbursement agreements in respect thereof, of all or any part of any Indebtedness (whether arising by virtue of partnership arrangements, or by agreements to keep-well, to purchase assets, goods, securities or services, to take or pay or to maintain financial statement conditions or otherwise).

“*Guarantors*” means the Parent Guarantor and each Subsidiary of the Parent Guarantor that executes a Note Guarantee in accordance with terms of the indenture, and their respective successors and assigns, in each case, until the Note Guarantee of such Person has been released in accordance with the provisions of the indenture.

“*Hedging Obligations*” means, with respect to any specified Person, the obligations of such Person under:

- (1) interest rate swap agreements (whether from fixed to floating or from floating to fixed), interest rate cap agreements and interest rate collar agreements;
- (2) other agreements or arrangements designed to manage interest rates or interest rate risk; and
- (3) other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

“*Indebtedness*” means, with respect to any specified Person, any indebtedness of such Person (excluding accrued expenses and trade payables), whether or not contingent:

- (1) in respect of borrowed money;

- (2) evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof);
- (3) in respect of banker's acceptances;
- (4) representing Capital Lease Obligations;
- (5) representing the balance deferred and unpaid of the purchase price of any property or services due more than six months after such property is acquired or such services are completed; or
- (6) representing any Hedging Obligations,

if and to the extent any of the preceding items (other than letters of credit and Hedging Obligations) would appear as a liability upon a balance sheet of the specified Person prepared in accordance with GAAP. In addition, the term "Indebtedness" includes all Indebtedness of others secured by a Lien on any asset of the specified Person (whether or not such Indebtedness is assumed by the specified Person) and, to the extent not otherwise included, the Guarantee by the specified Person of any Indebtedness of any other Person.

"*Investment Grade*" means a rating of BBB- or better by S&P (or its equivalent under any successor rating category of S&P), a rating of BBB- or better by Fitch (or its equivalent under any successor rating category of Fitch), a rating of Baa3 or better by Moody's (or its equivalent under any successor rating category of Moody's), and the equivalent ratings of any other "nationally recognized statistical rating organization" within the meaning of Rule 15c3-1(c)(2)(vi)(F) under the Exchange Act selected by the Issuer as having been substituted as a Rating Agency for S&P, Fitch or Moody's, as the case may be.

"*Lien*" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law, including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction.

"*Moody's*" means Moody's Investors Service, Inc. and any of its successors.

"*Net Proceeds*" means the aggregate cash proceeds and cash equivalents received by a Person or any of its Subsidiaries in respect of any Asset Sale (including, without limitation, any cash or cash equivalents received upon the sale or other disposition of any non-cash consideration received in any Asset Sale), net of the direct costs relating to such Asset Sale, including, without limitation, legal, accounting and investment banking fees, and sales commissions, and any relocation expenses incurred as a result of the Asset Sale, taxes paid or payable as a result of the Asset Sale, in each case, after taking into account any available tax credits or deductions and any tax sharing arrangements, and amounts required to be applied to the repayment of Indebtedness, other than Indebtedness under a Credit Facility, secured by a Lien on the asset or assets that were the subject of such Asset Sale, and any reserve for adjustment or indemnification obligations in respect of the sale price of such asset or assets established in accordance with GAAP.

"*Note Guarantees*" means the Guarantee by each Guarantor of the Issuer's obligations under the indenture and the notes, executed pursuant to the provisions of the indenture.

"*Obligations*" means any principal, interest, penalties, fees, indemnifications, reimbursements, damages and other liabilities payable under the documentation governing any Indebtedness.

"*Officer*" means one of the directors of the Issuer, in the case of the Issuer, or one of the authorized signatories of the Parent Guarantor, in the case of the Parent Guarantor.

"*Officers' Certificate*" means a certificate signed by two Officers.

“*Opinion of Counsel*” means a written opinion in form and substance from legal counsel who is reasonably acceptable to the trustee.

“*Permitted Business*” means (a) in the case of the Issuer, any business that is the same as, or reasonably related, ancillary or complementary to, any of the businesses in which the Issuer is engaged on the date of the indenture, and (b) in the case of a Subsidiary Guarantor, any business that is the same as, or reasonably related, ancillary or complementary to, any of the businesses in which the Subsidiary Guarantor is engaged on the date it becomes a Subsidiary Guarantor.

“*Permitted Liens*” means:

- (1) Liens on current assets of the Issuer or the Subsidiary Guarantors securing Indebtedness and other Obligations under Credit Facilities that were incurred pursuant to clause (1) of the definition of Permitted Debt and/or securing Hedging Obligations related thereto and/or securing Obligations with regard to Treasury Management Arrangements;
- (2) Liens in favor of the Issuer or a Subsidiary Guarantor;
- (3) Liens on property or assets of a Person existing at the time such Person becomes a Subsidiary of the Issuer or is merged with or into or consolidated with the Issuer; *provided* that, such Liens were in existence prior to the contemplation of such Person becoming a Subsidiary of the Issuer or such merger or consolidation and do not extend to any assets other than those of the Person that becomes a Subsidiary of the Issuer or is merged with or into or consolidated with the Issuer or any Subsidiary of the Issuer;
- (4) Liens on property (including Capital Stock) existing at the time of acquisition of the property by the Issuer or a Subsidiary Guarantor or any Subsidiary of the Issuer or Subsidiary of a Subsidiary Guarantor; *provided* that such Liens were in existence prior to such acquisition and not incurred in contemplation of such acquisition;
- (5) Liens to secure the performance of statutory obligations, insurance, surety or appeal bonds, workers compensation obligations, performance bonds or other obligations of a like nature incurred in the ordinary course of business (including Liens to secure letters of credit issued to assure payment of such obligations);
- (6) Liens to secure Indebtedness (including Capital Lease Obligations) permitted by clause (5) of the second paragraph of the covenant entitled “— Certain Covenants — Incurrence of Indebtedness and Issuance of Disqualified Stock” covering only the assets acquired with or financed by such Indebtedness;
- (7) Liens existing on the date of the indenture;
- (8) Liens for taxes, assessments or governmental charges or claims that are not yet delinquent or that are being contested in good faith by appropriate proceedings promptly instituted and diligently concluded; *provided* that any reserve or other appropriate provision as is required in conformity with GAAP has been made therefor;
- (9) Liens imposed by law, such as carriers’, warehousemen’s, landlord’s and mechanics’ Liens, in each case, incurred in the ordinary course of business;
- (10) survey exceptions, easements or reservations of, or rights of others for, licenses, rights-of-way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning or other restrictions as to the use of real property that were not incurred in connection with Indebtedness and that do not in the aggregate materially adversely affect the value of said properties or materially impair their use in the operation of the business of such Person;

- (11) Liens created for the benefit of (or to secure) the notes (or the Note Guarantees);
- (12) Liens to secure any Permitted Refinancing Indebtedness permitted to be incurred under the indenture; *provided, however*, that:
 - (a) the new Lien is limited to all or part of the same property and assets that secured or, under the written agreements pursuant to which the original Lien arose, could secure the original Lien (plus improvements and accessions to, such property or proceeds or distributions thereof); and
 - (b) the Indebtedness secured by the new Lien is not increased to any amount greater than the sum of (x) the outstanding principal amount, or, if greater, committed amount, of the Indebtedness renewed, refunded, refinanced, replaced, defeased or discharged with such Permitted Refinancing Indebtedness and (y) an amount necessary to pay any fees and expenses, including premiums, related to such renewal, refunding, refinancing, replacement, defeasance or discharge;
- (13) Liens on insurance policies and proceeds thereof, or other deposits, to secure insurance premium financings;
- (14) bankers' Liens, rights of setoff, Liens arising out of judgments or awards not constituting an Event of Default and notices of *lis pendens* and associated rights related to litigation being contested in good faith by appropriate proceedings and for which adequate reserves have been made;
- (15) Liens on cash, cash equivalents or other property arising in connection with the defeasance, discharge or redemption of Indebtedness;
- (16) Liens on specific items of inventory or other goods (and the proceeds thereof) of any Person securing such Person's obligations in respect of bankers' acceptances issued or created in the ordinary course of business for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;
- (17) Liens arising out of conditional sale, title retention, consignment or similar arrangements for the sale of goods entered into in the ordinary course of business;
- (18) Liens resulting from escrow arrangements unrelated to Indebtedness for borrowed money entered into in connection with a disposition of assets;
- (19) Liens arising under the Coal Cooperation Agreement;
- (20) Liens to secure Indebtedness permitted by clause (1) of the second paragraph of the covenant entitled "— Certain Covenants — Incurrence of Indebtedness and Issuance of Disqualified Stock"; and
- (21) other Liens to secure obligations in an aggregate amount not to exceed US\$75.0 million.

"Permitted Refinancing Indebtedness" means any Indebtedness of the Issuer or a Subsidiary Guarantor issued in exchange for, or the net proceeds of which are used to renew, refund, refinance, replace, defease or discharge other Indebtedness of the Issuer or that Subsidiary Guarantor (other than intercompany Indebtedness); *provided that*:

- (1) the principal amount (or accreted value, if applicable) of such Permitted Refinancing Indebtedness does not exceed the principal amount (or accreted value, if applicable) of the Indebtedness renewed, refunded, refinanced, replaced, defeased or discharged (plus all accrued interest on the Indebtedness and the amount of all fees and expenses, including premiums, incurred in connection therewith);
- (2) such Permitted Refinancing Indebtedness has a final maturity date later than the final maturity date of, and has a Weighted Average Life to Maturity that is (a) equal to or greater than the Weighted

Average Life to Maturity of, the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged or (b) more than 90 days after the final maturity date of the notes;

- (3) if the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged is subordinated in right of payment to the notes, such Permitted Refinancing Indebtedness is subordinated in right of payment to the notes on terms at least as favorable to the holders of notes as those contained in the documentation governing the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged; and
- (4) such Indebtedness is incurred by the Issuer or that Subsidiary Guarantor that was the obligor on the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged and is guaranteed only by Persons who were obligors on the Indebtedness being renewed, refunded, refinanced, replaced, defeased or discharged.

“*Person*” means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company or government or other entity.

“*Rating Agency*” means any of (i) S&P, (ii) Moody’s, (iii) Fitch or (iv) if any or all of them shall not make a rating of the Notes publicly available, any other “nationally recognized statistical rating organization” within the meaning of Rule 15c3-1(c)(2)(vi)(F) under the Exchange Act selected by the Issuer as a replacement agency.

“*Relevant Subsidiaries*” means, with respect to the Parent Guarantor:

- (1) the Issuer and its Subsidiaries, if any;
- (2) each Subsidiary Guarantor and its Subsidiaries; and
- (3) each Subsidiary through which the Parent Guarantor holds an indirect interest in the Issuer or any Subsidiary Guarantor.

“*S&P*” means S&P Global Ratings and any of its successors.

“*Significant Subsidiary Guarantor*” means any Subsidiary Guarantor that would be the Parent Guarantor’s “significant subsidiary” as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act, as such Regulation is in effect on the date of the indenture.

“*Stated Maturity*” means, with respect to any installment of interest or principal on any series of Indebtedness, the date on which the payment of interest or principal was scheduled to be paid in the documentation governing such Indebtedness as of the date of the indenture, and will not include any contingent obligations to repay, redeem or repurchase any such interest or principal prior to the date originally scheduled for the payment thereof.

“*Subsidiary*” means, with respect to any specified Person:

- (1) any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency and after giving effect to any voting agreement or stockholders’ agreement that effectively transfers voting power) to vote in the election of directors, managers or trustees of the corporation, association or other business entity is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person (or a combination thereof); and
- (2) any partnership or limited liability company of which (a) more than 50% of the capital accounts, distribution rights, total equity and voting interests or general and limited partnership interests, as applicable, are owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of that Person or a combination thereof, whether in the form of membership, general,

special or limited partnership interests or otherwise, and (b) such Person or any Subsidiary of such Person is a controlling general partner or otherwise controls such entity.

“*Subsidiary Guarantor*” means a Guarantor other than the Parent Guarantor.

“*Total Assets*” means, as of any date of determination, the total assets of the Issuer and the Subsidiary Guarantors (if any) measured in accordance with GAAP as of the last day of the most recently ended fiscal quarter prior to such date for which consolidated financial statements (which may be internal financial statements) of the Issuer are available; *provided* that, “Total Assets” will be calculated after giving pro forma effect to reflect (without duplication) (a) the cumulative value of all assets, real or personal property, machinery, plant and equipment, the acquisition, development, installation, expansion, construction or improvement of which requires or required the Incurrence of Indebtedness, as measured by the purchase price or cost therefor or budgeted cost provided in good faith by the Issuer or any Subsidiary Guarantor, as applicable, to the bank or financial institutional lender providing such Indebtedness (but only to the extent that such cumulative value is not reflected in such total consolidated assets as of the last day of such fiscal quarter) and (b) any asset acquisitions and asset dispositions (including giving pro forma effect to the application of proceeds of any asset disposition) that have been made since the last day of such fiscal quarter and on or prior to such date of determination.

“*Treasury Management Arrangement*” means any agreement or other arrangement governing the provision of treasury or cash management services, including deposit accounts, overdraft, credit or debit card, funds transfer, automated clearinghouse, zero balance accounts, returned check concentration, controlled disbursement, lockbox, account reconciliation and reporting and trade finance services and other cash management services.

“*Treasury Rate*” means, as of any redemption date, the yield to maturity as of such redemption date of United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two business days prior to the redemption date (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to October 31, 2022, *provided, however*, that if the period from the redemption date to October 31, 2022 is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year will be used.

“*U.S. Government Obligations*” means securities that are (a) direct obligations of the United States of America for the payment of which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America, which, in either case, are not callable or redeemable at the option of the Issuer thereof at any time prior to the Stated Maturity of the Notes, and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Obligation or a specific payment of interest on or principal of any such U.S. Government Obligation held by such custodian for the account of the holder of a depository receipt; *provided* that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the U.S. Government Obligation or the specific payment of interest on or principal of the U.S. Government Obligation evidenced by such depository receipt.

“*Voting Stock*” of any specified Person as of any date means the Capital Stock of such Person that is at the time entitled to vote in the election of the Board of Directors of such Person.

“*Weighted Average Life to Maturity*” means, when applied to any Indebtedness at any date, the number of years obtained by dividing:

- (1) the sum of the products obtained by multiplying (a) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect of the Indebtedness, by (b) the number of years (calculated to the nearest one-twelfth) that will elapse between such date and the making of such payment; *by*
- (2) the then outstanding principal amount of such Indebtedness.

TAXATION

The following summary is based on applicable tax laws that are in effect on the date of this Offering Memorandum, and is subject to changes in such laws, including changes that could have retroactive effect. The following summary does not take into account or discuss the tax laws of any jurisdictions other than the ones described below. Prospective purchasers in all jurisdictions are advised to consult their own tax advisers as to tax consequences applicable to the acquisition, ownership and disposition of the Notes, including, in particular, the effect of any foreign, state or local tax laws to which they are subject.

Indonesian Taxation

The following is a summary of the principal Indonesian income tax and stamp duty consequences relevant to the prospective Noteholders who are not tax residents of Indonesia and have no permanent establishment in Indonesia. The summary does not address any laws other than the tax laws of the Republic of Indonesia in force as of the date of this Offering Memorandum.

The summary represents a general guide only. The summary does not constitute tax advice for particular individual or corporate Noteholders. Prospective investors in all jurisdictions are advised to consult their own tax advisors as to other tax consequences of the acquisition, ownership and disposition of the Notes relevant to their facts and circumstances.

General

Generally, an individual is considered to be a Non-resident Taxpayer of Indonesia if the individual does not reside in Indonesia or does not stay (or intend to stay) in Indonesia for more than 183 days within a 12 month period. A corporation will be considered as a Non-resident Taxpayers of Indonesia if the entity is not established or domiciled in Indonesia. Activities of a Non-resident may attract Indonesian taxation if the activities are conducted through a permanent establishment in Indonesia or the income is sourced from Indonesia.

In determining the tax residence or existence of a permanent establishment of an individual or corporation, and the allocation of the right to tax income between the two countries, consideration will also be given to the provision of any applicable agreement for the avoidance of double taxation which Indonesia has concluded with other countries (“Tax Treaty”). In this section, Non-resident individuals and Non-resident corporations will be referred to collectively as “Non-resident Taxpayers” unless the context states otherwise.

Non-resident Taxpayers, who derive Indonesian sourced income, including interest are generally subject to a final withholding tax on that income at a rate of 20%, as long as the income is not effectively connected with a permanent establishment of the Non-resident Taxpayer in Indonesia. This withholding tax may be reduced or exempted under the provisions of any applicable Tax Treaty. If the income is effectively connected with a permanent establishment in Indonesia, such income shall be regarded as income earned by the permanent establishment, and is taxable in the same manner as for resident taxpayers.

Coal Cooperation Agreement

Adaro Indonesia entered into a 30 year Coal Cooperation Agreement (with *Perusahaan Negara Tambang Batubara*) in 1982 which is a first generation Coal Cooperation Agreement in which the Indonesian taxation should follow the *lex specialis* treatment in the Coal Cooperation Agreement as Article 33A (4) of the Law No. 36/2008 (“ITL”), which stipulates that tax provisions in the Coal Cooperation Agreement which are still in force at the time the law takes effect should continue to apply until the end of the Coal Cooperation term.

Under the Coal Cooperation Agreement, the withholding tax on dividends, interest and royalties on patents paid by the contractor is subject to withholding tax at the rate of 10%. Further, the stamp duty on loan agreements between the Contractor and financial institutions, for use in Indonesia, up to a maximum rate of one permille (0.001%) of the total amount of the loan mentioned in the loan agreement. Effective from January 17, 2018, the Coal Cooperation Agreement was amended and regulates that the Issuer should follow the prevailing ITL for the withholding tax and stamp duty purposes.

Taxation on Interest and other payments related to the Notes

Payments of principal under the Notes are not subject to withholding tax in Indonesia, whilst the interest (including premium or discount) paid or due to be paid by the Company to the Non-resident Taxpayer with non-permanent establishment is subject to final withholding tax in Indonesia at the statutory rate of 20% or the relevant reduced rate under an applicable Tax Treaty between Indonesia and countries where the Noteholders become tax residents.

The amount of any payment by the Guarantor under the Guarantees attributable to interest payable on the Notes to a Non-resident Taxpayer will be subject to final withholding tax in Indonesia at the rate of 20% or the relevant reduced rate under an applicable Tax Treaty.

To be entitled to the reduced rate under an applicable Tax Treaty, a non-resident individual and corporation must satisfy the eligibility requirements under the applicable Tax Treaty and the Indonesian tax regulations, including the requirement that there is no abuse of the tax treaty use, the interest recipient be the beneficial owner (“BO”) of the income, and certain administrative requirements are met. See “— Anti-Avoidance Rule on the Tax Treaty and Certificate of Domicile Requirements” below. However, as described under the “Description of Notes — Additional Amounts,” and subject to the limitations therein, Noteholders will generally be entitled to Additional Amounts with respect to Indonesian withholding tax irrespective of whether such Noteholders qualify for Tax Treaty benefits.

Interest due (including premium or discount, and any other payments in the nature of interest in form of additional amount, applicable premium, etc.) to any Indonesian Tax Resident (individual or corporation) or permanent establishment in Indonesia (“Indonesian Tax Resident”) Notes holder (other than banks operating in Indonesia and government approved pension funds in which case are exempt from withholding tax) are subject to a final withholding tax rate of 15%. A special tax rate of 5% is available for interest received by a mutual fund and infrastructure investment funds Taxpayer in the form of collective investment contracts, real estate investment funds in the form of collective investment contracts, and asset-backed securities in the form of collective investment contracts registered with the Financial Services Authority (Otoritas Jasa Keuangan/OJK) until year 2020 and 10% thereafter.

Taxation on Sale or Disposition Notes

Under Government Regulation No. 16/2009 effective January 1, 2009 (“Government Regulation No. 16”) and amended by Government Regulation No. 100/2013 which took effect on December 31, 2013 (“Government Regulation No. 100”) and as lastly amended with Government Regulation No. 55/2019 which took effect on August 7, 2019 (“Government Regulation No. 55”), Non-resident Taxpayer individual and corporation without a permanent establishment in Indonesia may be subject to Indonesian withholding tax on any gain derived from the sale or other disposal of Notes. Under Government Regulation No. 16, Government Regulation No. 100, and the latest amendment, Government Regulation No. 55, a gain on such sales would be subject to Indonesian withholding tax as the DGT would treat the capital gain as Indonesian-sourced interest. Therefore, any gain from the sale of Notes by an investor that is not an Indonesian tax resident where the transactions is conducted through a securities company, dealer or bank in Indonesia (either as intermediary or buyer) will be subject to the 20% Indonesian withholding tax normally applicable to Indonesian-sourced interest.

However, if the Non-resident Taxpayer individual and corporation is a tax resident of a country that has a Tax Treaty with Indonesia which defines gain on the disposal of the Notes not as interest, instead such as capital gains and provides capital gain exemption provision for the disposal of the Notes, relief from the imposition of such withholding tax shall be available. The reduced rate or exempted withholding tax applicable to a Non-resident Taxpayer is also subject to the satisfaction of Anti-Avoidance Rule on the Tax Treaty and Certificate of Domicile Requirements (see below).

Any gains from disposal of the Notes (i.e. discount) derived by Indonesian Tax Residents are subject to 15% final withholding tax.

Anti-Avoidance Rule on the Tax Treaty and Certificate of Domicile Requirements

Indonesia has concluded tax treaties with a number of countries including, among others, Australia, Belgium, China, Canada, France, Germany, Hong Kong, Japan, Luxemburg, the Netherlands, Singapore, Sweden, Switzerland, United Kingdom, and the United States, etc. The relevant Tax Treaty may affect the definition of Non-resident Taxpayers and level of withholding tax applied to payments on the Notes

Where a Tax Treaty exists and the eligibility requirements of that treaty benefit are satisfied, a reduced rate of withholding tax may be applicable in the case of interest (or payments in the nature of interest, such as premium or discount). This is subject to there being no misuse of the Tax Treaties, the Non-resident Taxpayers meeting the administrative requirements under the Indonesian tax regulations and the Non-resident Taxpayer individual, and the income recipient must be the BOs of the income received from Indonesia. Some Tax Treaties also provide an exemption from Indonesian tax on any capital gains of Non-resident Taxpayers arising from alienation of movable assets or Notes in Indonesia.

In accordance with the DGT Regulation No. PER-25/PJ/2018 (“PER-25”) dated November 21, 2018 regarding the Procedures for Applying Tax Treaties, the Indonesian tax withholder (i.e. the Indonesian party making a payment to the non-resident taxpayer) is allowed to withhold tax at the reduced rate in accordance with the provisions of a tax treaty, provided that:

- a) the non-resident taxpayer is not an Indonesian tax resident;
- b) the non-resident taxpayer is a tax resident of a tax treaty partner;
- c) the administrative requirements have been fulfilled;
- d) there is no tax treaty abuse by the non-resident taxpayer; and
- e) the non-resident taxpayer is the beneficial owner of the income (if so required by the tax treaty).

In the case that the above requirements are not met, the Indonesian tax withholder shall withhold the tax in accordance with the Indonesian tax regulations, i.e. withholding tax at the rate of 20%.

Under PER-25 a Non-resident taxpayer is considered to participate in tax treaty abuse if one of the purposes of the arrangement(s) or transaction(s) is to obtain directly or indirectly a benefit under the tax treaty contrary to the object and purpose of the tax treaty. In addition, treaty abuse may be considered to occur if;

- a) a transaction or structure does not have economic substance;
- b) the legal form of the structure/transactions is different from the economic substance;
- c) the business operations is not managed by its own management and the management does not have appropriate authority to carry out transactions;
- d) the entity’s assets, other than the assets to generate income from Indonesia are not sufficient and adequate to carry out business operations in the tax treaty partner country;
- e) the entity does not have sufficient qualified employees to conduct its business operations; or
- f) the entity has no active business other than receiving income from dividends, interest, and/or royalty originating from Indonesia.

Where the non-resident taxpayer is required by a Tax Treaty to be the BO of the income (e.g. for interest income) then, in addition to satisfying the conditions for non-abuse of the tax treaty, that non-resident taxpayer must fulfill the following:

- a) if an individual:- that are not acting as an agent or a nominee; or

- b) if a company:
 - i. it is not acting as an agent, nominee, or conduit and the company
 - ii. has the power to use or enjoy the funds, assets, or right to earn income from Indonesia;
 - iii. does not use more than 50% of its total income (non-consolidated) to fulfill obligations to other parties in the form of interest, royalty, or other fees (excluding reasonable remuneration for employees, and other expenses normally incurred by the company in running the business;
 - iv. bears the risk on its own assets, capital, and/or liabilities; and
 - v. it does not have any contractual or legal obligation to transfer the whole or part of the income received from Indonesia to another party.

In the case that there is tax treaty abuse or the income recipient is not the beneficial owner the following will apply:

- a) the Indonesian tax withholder is not entitled to apply the tax treaty benefits and must withhold tax which is payable in accordance with Indonesian tax regulations, i.e., withholding tax at the rate of 20%; and
- b) the Non-resident taxpayer who abuses the tax treaty cannot apply for a refund for the overpayment of the tax which should not have been payable.

If there is a difference between the legal form of a structure/scheme and the economic substance, the tax regulations will be applied in accordance with the economic substance (substance over form).

Certificate of Domicile (“COD”)

Under PER-25, the administrative criteria to be fulfilled by the Non-resident Taxpayers in order to enjoy Tax Treaty benefits are in the COD form, which must be:

- a) in the form prescribed in the attachment to PER-25 (i.e., Form DGT);
- b) filled in completely by the non-resident taxpayers;
- c) signed by the Non-resident Taxpayers;
- d) certified by the competent tax authority of the treaty country of the Non-resident Taxpayers (except where alternative certification arrangements are in place); and
- e) provided to the Indonesian party (or a receipt of earlier filing is provided) prior to the due date for lodgement of the relevant monthly tax return.

If certification from the tax authority (as set out in point (d) above) the treaty country cannot be obtained, the non-resident taxpayers may replace this with the traditional COD issued by the competent tax authority of the treaty country. In this case, the traditional COD issued by the competent tax authority is required to be attached to the Form DGT, that has been completed and signed by the non-resident taxpayer. The COD must satisfy certain requirements set by the DGT. The certified first page of Form DGT or the traditional COD used in lieu thereof, has a maximum validity of one year.

The Non-resident Taxpayer should provide the original COD form to the Indonesian tax withholder. The Indonesian tax withholder is required to attach the copy of COD from the non-resident taxpayer, or a receipt of earlier filing, in the relevant monthly tax return.

In the case that there is income received or earned by a Non-resident Taxpayer but no tax is withheld in Indonesia according to the Tax Treaty, the Indonesian tax withholder is still obliged to arrange reporting of the income and the COD.

Stamp Duty

In Indonesia, nominal stamp duty applies per document basis, and is computed based on the value of the transaction. Stamp duty applies on certain documents made, executed or brought into Indonesia or intended to be used as evidence for civil proceedings. Documents subject to stamp duty include notarial deeds, documents evidencing or recording the receipt of money, and securities instruments. The nominal amount of the Indonesian stamp duty for any kind of securities transaction having a value greater than Rp1,000,000 is Rp6,000. Generally, the stamp duty is due at the time the document is executed. Stamp duty is payable by the party who benefits from the executed document unless all parties involved decided otherwise.

Other Indonesian Taxes

There are no Indonesian estate, inheritance, succession or gift taxes generally applicable to the acquisition, ownership or disposal of the Notes. There are no Indonesian registrations or similar taxes payable by the Holders of the Notes.

Singapore Taxation

The statements below are general in nature and are based on certain aspects of current tax laws in Singapore and administrative guidelines and circulars issued by the Inland Revenue Authority of Singapore (“IRAS”) and the Monetary Authority of Singapore (the “MAS”) in force as at the date of the Offering Memorandum and are subject to any changes in such laws, administrative guidelines or circulars, or the interpretation of those laws, guidelines or circulars, occurring after such date, which changes could be made on a retroactive basis. These laws, guidelines and circulars are also subject to various interpretations and no assurance can be given that the relevant tax authorities or the courts will agree with the explanations or conclusions set out below. Neither these statements nor any other statements in the Offering Memorandum are intended or are to be regarded as advice on the tax position of any holder of the Notes or of any person acquiring, selling or otherwise dealing with the Notes or on any tax implications arising from the acquisition, sale or other dealings in respect of the Notes. The statements made herein do not purport to be a comprehensive or exhaustive description of all the tax considerations that may be relevant to a decision to subscribe for, purchase, own or dispose of the Notes and do not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities or financial institutions in Singapore which have been granted the relevant Financial Sector Incentive(s)) may be subject to special rules or tax rates. The statements should not be regarded as advice on the tax position of any person and should be treated with appropriate caution. Holders and prospective holders of the Notes are advised to consult their own tax advisors as to the Singapore or other tax consequences of the acquisition, ownership of or disposal of the Notes, including, in particular, the effect of any foreign, state or local tax laws to which they are subject. It is emphasized that none of the Issuer, the Initial Purchasers and any other persons involved in the issue of the Notes accepts responsibility for any tax effects or liabilities resulting from the subscription for, purchase, holding or disposal of the Notes.

Qualifying Debt Securities Scheme

Each of DBS Bank Ltd., Citigroup Global Markets Singapore Pte. Ltd., UBS AG Singapore Branch, MUFG Securities Asia (Singapore) Limited and Oversea-Chinese Banking Corporation Limited is a Financial Sector Incentive (Standard Tier) (“FSI-ST”) Company for the purposes of the Income Tax Act, Chapter 134 of Singapore (the “ITA”). As the Notes are issued on or before December 31, 2023 and if more than half of the lead managers are either a Financial Sector Incentive (Capital Market) Company, a FSI-ST Company or a Financial Sector Incentive (Bond Market) Company, the Notes would be qualifying debt securities for the purposes of the ITA, and subject to certain conditions having been fulfilled (including the furnishing of a return on debt securities to the MAS in respect of the Notes within such period as the MAS may specify and such other particulars in connection with the Notes as the MAS may require), interest, discount income (not including discount income arising from secondary trading), prepayment fee, redemption premium and break cost

(collectively, the “Qualifying Income”) from the Notes derived by any company or body of persons (as defined in the ITA) in Singapore is subject to income tax at a concessionary rate of 10 per cent. (except for holders of the relevant Financial Sector Incentive(s) who may be taxed at different rates).

However, notwithstanding the foregoing:

- (A) if during the primary launch of the Notes, the Notes are issued to fewer than four persons and 50% or more of the issue of such Notes is beneficially held or funded, directly or indirectly, by related parties of the Issuer, such Notes would not qualify as “qualifying debt securities”; and
- (B) even though the Notes are “qualifying debt securities”, if at any time during the tenure of such Notes, 50% or more of the issue of such Notes is held beneficially or funded, directly or indirectly, by any related party(ies) of the Issuer, Qualifying Income derived from such Notes held by:
 - (i) any related party of the Issuer; or
 - (ii) any other person where the funds used by such person to acquire such Notes are obtained, directly or indirectly, from any related party of the Issuer,

shall not be eligible for the concessionary rate of tax as described above.

The term “related party”, in relation to a person, means any other person who, directly or indirectly, controls that person, or is controlled, directly or indirectly, by that person, or where he and that other person, directly or indirectly, are under the control of a common person.

For the purposes of the ITA and this Singapore tax disclosure:

- (a) “break cost” means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by any loss or liability incurred by the holder of the securities in connection with such redemption;
- (b) “prepayment fee” means any fee payable by the issuer of the securities on the early redemption of the securities, the amount of which is determined by the terms of the issuance of the securities; and
- (c) “redemption premium” means any premium payable by the issuer of the securities on the redemption of the securities upon their maturity.

Notwithstanding that the Issuer is permitted to make payments of interest, discount income, prepayment fee, redemption premium and break cost (i.e. the Qualifying Income) in respect of the Notes without deduction or withholding for tax under Section 45 or Section 45A of the ITA, any person whose interest, discount income, prepayment fee, redemption premium or break cost (i.e. the Qualifying Income) derived from the Notes is not exempt from tax shall include such income in a return of income made under the ITA.

Gains on Disposal of Notes

Any gains considered to be in the nature of capital made from the sale of the Notes will not be taxable in Singapore. However, any gains derived by any person from the sale of the Notes which are gains from any trade, business, profession or vocation carried on by that person, if accruing in or derived from Singapore, may be taxable as such gains are considered revenue in nature.

Holders of the Notes who apply or are required to apply Singapore Financial Reporting Standard 39 (“FRS 39”), Financial Reporting Standard 109 - Financial Instruments (“FRS 109”) or Singapore Financial Reporting Standard (International) 9 (Financial Instruments) (“SFRS(I) 9”) (as the case may be) may for Singapore income tax purposes be required to recognize gains or losses (not being gains or losses in the nature of capital) on the Notes, irrespective of disposal, in accordance with FRS 39, FRS 109 or SFRS(I) 9 (as the case may be). Please see the section below on “*Adoption of FRS 39, FRS 109 or SFRS(I) 9 Treatment for Singapore Income Tax Purposes.*”

Adoption of FRS 39, FRS 109 or SFRS(I) 9 Treatment for Singapore Income Tax Purposes

Subject to certain “opt-out” provisions, Section 34A of the ITA requires taxpayers who adopt or are required to adopt FRS 39 for financial reporting purposes to calculate their profit, loss or expense for Singapore income tax purposes in respect of financial instruments in accordance with FRS 39, subject to certain exceptions provided in that section. The IRAS has also issued a circular entitled “Income Tax Implications Arising from the Adoption of FRS 39 — Financial Instruments: Recognition and Measurement” to provide guidance on the Singapore income tax treatment of financial instruments.

FRS 109 or SFRS(I) 9 (as the case may be) is mandatorily effective for annual periods beginning on or after January 1, 2018, replacing FRS 39. Section 34AA of the ITA requires taxpayers who adopt or who are required to adopt FRS 109 or SFRS(I) 9 for financial reporting purposes to calculate their profit, loss or expense for Singapore income tax purposes in respect of financial instruments in accordance with FRS 109 or SFRS(I) 9 (as the case may be), subject to certain exceptions provided in that section. The IRAS has also issued a circular entitled “Income Tax: Income Tax Treatment Arising from Adoption of FRS 109 — Financial Instruments.”

Holders of the Notes who may be subject to the tax treatment under the FRS 39 tax regime, FRS 109 tax regime or the SFRS(I) 9 tax regime should consult their own accounting and tax advisers regarding the Singapore income tax consequences of their acquisition, holding or disposal of the Notes.

Estate Duty

Singapore estate duty has been abolished with respect to all deaths occurring on or after February 15, 2008.

Certain U.S. Federal Income Tax Considerations

The following is a general discussion based upon present law of certain U.S. federal income tax considerations for prospective purchasers of the Notes. This discussion is based upon the U.S. Internal Revenue Code of 1986, as amended (the “Code”), Treasury regulations issued thereunder, and judicial and administrative interpretations thereof, each as in effect on the date hereof, and all of which are subject to change, possibly with retroactive effect. The discussion addresses only persons that purchase Notes in the original offering at their “issue price”, hold the Notes as capital assets, and, in the case of U.S. Holders (as defined below), use the U.S. dollar as their functional currency. The discussion does not consider the circumstances of particular purchasers, some of which (such as financial institutions, insurance companies, regulated investment companies, tax exempt organizations, dealers, traders who elect to mark their investment to market, U.S. expatriates and persons holding the Notes as part of a hedge, straddle, conversion, constructive sale or integrated transaction) are subject to special tax regimes. The discussion does not address any state, local or foreign taxes, the Medicare tax on net investment income or the federal alternative minimum tax. Prospective investors should note that no rulings have been, or are expected to be, sought from the U.S. Internal Revenue Service (the “IRS”) with respect to any of the U.S. federal income tax consequences discussed below, and no assurance can be given that the IRS or a court will not take contrary positions.

EACH PROSPECTIVE PURCHASER IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES OF AN INVESTMENT IN THE NOTES UNDER THE FEDERAL, STATE AND LOCAL LAWS OF THE UNITED STATES, SINGAPORE, INDONESIA AND THE LAWS OF ANY OTHER JURISDICTION WHERE THE PURCHASER MAY BE SUBJECT TO TAXATION.

For purposes of this discussion, “U.S. Holder” means the beneficial owner of a Note that for U.S. federal income tax purposes is:

- a citizen or individual resident of the United States,
- a corporation for U.S. federal income tax purposes organized in or under the laws of the United States or any political subdivision thereof,
- a trust subject to the control of one or more U.S. persons and the primary supervision of a U.S. court or that has validly elected to be treated as a U.S. person, or
- an estate the income of which is subject to U.S. federal income taxation regardless of its source.

“Non-U.S. Holder” means a person (other than a partnership or partner therein) that is a beneficial owner of a Note other than a U.S. Holder.

The treatment of partners in a partnership (including an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that owns Notes may depend on the status of such partners and the status and activities of the partnership and such persons should consult their own tax advisors about the consequences of an investment in the Notes.

Under recently enacted legislation, U.S. Holders that use an accrual method of accounting for tax purposes generally will be required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. The application of this rule thus may require the accrual of income earlier than would be the case under the general tax rules described below, although the precise application of this rule is unclear at this time. This rule generally is effective for tax years beginning after December 31, 2017. U.S. Holders that use an accrual method of accounting should consult with their tax advisors regarding the potential applicability of this legislation to their particular situation.

Potential Contingent Payment Debt Instrument Treatment

In certain circumstances the Company may be required to make payments on a Note that would change the yield of the Note. See “Description of Notes — Change of Control” and “Description of Notes — Optional Redemption.” This obligation may implicate the provisions of Treasury regulations relating to contingent payment debt instruments (“CPDIs”). According to the applicable Treasury regulations, certain contingencies will not cause a debt instrument to be treated as a CPDI if such contingencies, as of the date of issuance, are “remote or incidental” or certain other circumstances apply. The Company intends to take the position that the Notes are not CPDIs. This determination is binding on each holder of the Notes unless such holder discloses its contrary position in the manner required by the applicable Treasury regulations. This determination, however, is not binding on the IRS and if the IRS were to successfully challenge this determination, a U.S. Holder may be required to accrue income on the Notes that such U.S. Holder owns in excess of stated interest, and to treat as ordinary income rather than capital gain any income realized on the taxable disposition of such Notes before the resolution of the contingency. If the Notes are not CPDIs but such contingent payments were required to be made, it would affect the amount and timing of the income that a U.S. Holder recognizes. U.S. Holders are urged to consult their own tax advisors regarding the potential application to the Notes of the CPDI rules and other rules above and the consequences thereof. It is expected, and the remainder of this discussion assumes, that the Notes will not be treated as CPDIs for U.S. federal income tax purposes.

Interest

Stated interest paid to a U.S. Holder, and any Additional Amounts with respect to withholding tax on the Notes (including the amount of tax withheld from payments of interest and Additional Amounts), will be includible in the U.S. Holder’s gross income as ordinary interest income at the time interest and Additional Amounts are received or accrued in accordance with the U.S. Holder’s regular method of tax accounting for U.S. federal income tax purposes. It is expected, and the remainder of this discussion assumes, that the Notes will not be issued with original issue discount for U.S. federal income tax purposes.

Interest on the Notes generally will be treated as foreign source income for U.S. federal income tax purposes and generally will constitute “passive category” income for most U.S. Holders. Subject to generally applicable restrictions and conditions (including a minimum holding period requirement), a U.S. Holder generally will be entitled to a foreign tax credit in respect of any foreign income taxes withheld on interest payments on the Notes. Alternatively, the U.S. Holder may be able to deduct such taxes in computing taxable income for U.S. federal income tax purposes. The rules governing the foreign tax credit are complex. U.S. Holders are urged to consult their tax advisors regarding the availability of the foreign tax credit or a deduction for foreign taxes paid under their particular circumstances.

Sale, Exchange or Other Taxable Disposition

Upon the sale, exchange or other taxable disposition (including redemption) of a Note, a U.S. Holder generally will recognize taxable gain or loss equal to the difference, if any, between the amount realized on the

sale, exchange or other taxable disposition (other than accrued but unpaid interest, which will be taxable as interest) and the U.S. Holder's adjusted tax basis in the Note. A U.S. Holder's adjusted tax basis in a Note generally will be equal to the amount that the U.S. Holder paid for the Note. Any such gain or loss generally will be capital gain or loss and generally will be long-term capital gain or loss if the Note has been held for more than one year at the time of its sale, exchange or other taxable disposition. Certain non-corporate U.S. Holders (including individuals) may be eligible for preferential rates of U.S. federal income tax in respect of long-term capital gains. The deductibility of capital losses is subject to limitations.

Any gain or loss recognized on the sale, exchange, retirement or other taxable disposition of the Note generally will be treated as U.S. source gain or loss, as the case may be, for U.S. foreign tax credit purposes. Consequently, in the case of a gain from the sale, exchange, retirement or other taxable disposition of a Note that is subject to either an Indonesian or Singaporean tax, the U.S. Holder may not be able to benefit from the foreign tax credit for that Indonesian or Singaporean tax, respectively, unless the U.S. Holder can apply the credit against U.S. federal income tax payable on other income from foreign sources. A U.S. Holder is urged to consult its tax adviser regarding the U.S. federal income tax consequences if an Indonesian or Singaporean tax is imposed on the sale, exchange, retirement or other taxable disposition of the Note, including the availability of the U.S. foreign tax credit under a Holder's particular circumstances. Alternatively, the U.S. Holder may take a deduction for the Indonesian or Singaporean income tax if it does not elect to or is unable to claim a foreign tax credit with respect to any foreign income taxes paid or accrued during the taxable year.

Non-U.S. Holders

Subject to the discussion of backup withholding below, a Non-U.S. Holder generally will not be subject to U.S. federal withholding tax on interest and Additional Amounts on or gain with respect to the Notes. A Non-U.S. Holder also generally will not be subject to U.S. federal income tax on a net income basis with respect to interest and Additional Amounts received in respect of the Notes or gain realized on the sale, exchange or other taxable disposition (including redemption) of the Notes, unless (i) that interest or gain is effectively connected with the conduct by the Non-U.S. Holder's trade or business within the United States or, (ii) in the case of gain realized by an individual Non-U.S. Holder, the Non-U.S. Holder is present in the United States for 183 days or more in the taxable year of the sale, exchange, or other taxable disposition and certain other conditions are met.

U.S. Backup Withholding and Information Reporting

Information reporting generally will apply to payments of principal of, and interest on, Notes (including Additional Amounts), and to proceeds from the sale, exchange or other taxable disposition (including redemption) of Notes to a U.S. Holder (other than an exempt recipient). Backup withholding may be required on reportable payments if the holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with, or establish an exemption from, information reporting and backup withholding. Non-U.S. Holders generally will be required to comply with applicable certification procedures to establish that they are not U.S. Holders in order to avoid the application of information reporting and backup withholding. Backup withholding is not an additional tax. A holder of Notes generally will be entitled to credit any amounts withheld under the backup withholding rules against its U.S. federal income tax liability or to obtain a refund of the amounts withheld provided the required information is furnished to the IRS in a timely manner.

"Specified Foreign Financial Asset" Reporting

Owners of "specified foreign financial assets" with an aggregate value in excess of US\$50,000 (and in some circumstances, a higher threshold), may be required to file an information statement with respect to such assets with their U.S. federal income tax returns, currently on IRS Form 8938. The Notes generally are expected to constitute "specified foreign financial assets" unless they are held in accounts maintained by financial institutions. U.S. Holders are urged to consult their tax advisors regarding the application of this legislation to their ownership of the Notes.

THE FOREGOING SUMMARY OF CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS IS INCLUDED FOR GENERAL INFORMATION ONLY AND DOES NOT CONSTITUTE LEGAL ADVICE. THE ABOVE DESCRIPTION IS NOT INTENDED TO CONSTITUTE A COMPLETE ANALYSIS OF ALL TAX CONSEQUENCES RELATING TO THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE NOTES. THE TAX CONSEQUENCES MAY VARY DEPENDING UPON THE PARTICULAR CIRCUMSTANCES OF THE HOLDER. PROSPECTIVE PURCHASERS OF NOTES SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE U.S. FEDERAL TAX, AS WELL AS NON-U.S. TAX CONSEQUENCES OF THEIR PARTICULAR SITUATIONS.

PLAN OF DISTRIBUTION

Subject to the terms and conditions in the purchase agreement among the Issuer, the Parent Guarantor and the Initial Purchasers, the Issuer has agreed to sell to the Initial Purchasers, and the Initial Purchasers have agreed to purchase from the Issuer, the principal amount of the Notes set forth opposite their respective names below.

Initial Purchaser	Principal Amount (US\$)
DBS Bank Ltd.	250,000,000
Citigroup Global Markets Singapore Pte. Ltd.	212,500,000
UBS AG Singapore Branch	212,500,000
MUFG Securities Asia (Singapore) Limited	37,500,000
Oversea-Chinese Banking Corporation Limited	37,500,000
Total	US\$750,000,000

The obligations of the Initial Purchasers under the purchase agreement, including their agreement to purchase Notes from the Issuer, are several and not joint. The purchase agreement provides that the obligations of the Initial Purchasers to purchase the Notes are subject to approval of certain legal matters by counsel and to certain other conditions.

The Initial Purchasers initially propose to offer the Notes for resale at the issue price that appears on the cover of this Offering Memorandum. After the initial offering, the Initial Purchasers may change the offering price and any other selling terms. The Initial Purchasers may offer and sell Notes through certain of their affiliates.

In the purchase agreement, the Issuer and the Parent Guarantor have agreed that they will indemnify the Initial Purchasers against certain liabilities, including liabilities under the Securities Act, or contribute to payments that the Initial Purchasers may be required to make in respect of those liabilities.

New Issue of Securities

The Notes are a new issue of securities, and there is currently no established trading market for the Notes. In addition, the Notes are subject to certain restrictions on resale and transfer as described under “Transfer Restrictions.” Approval in-principle has been received for the listing and quotation of the Notes on the SGX-ST. The Initial Purchasers have advised the Issuer that they intend to make a market in the Notes, but they are not obligated to do so. The Initial Purchasers may discontinue any market making in the Notes at any time in their sole discretion. Accordingly, no assurance can be given that a liquid trading market will develop for the Notes, that you will be able to sell your Notes at a particular time or that the prices that you receive when you sell will be favorable.

Stabilization

In connection with this offering, Citigroup Global Markets Singapore Pte. Ltd. (or persons acting on its behalf) may, to the extent permitted by applicable laws and regulations, over-allot Notes or effect transactions with a view to supporting the market price of the Notes at a level higher than that which might otherwise prevail. However, there is no assurance that Citigroup Global Markets Singapore Pte. Ltd. (or persons acting on its behalf) will undertake stabilization action. Any stabilization action may begin on or after the date on which adequate public disclosure of the offer of Notes is made and, if begun, may be ended at any time, but must end no later than the earlier of 30 days after the issue date of the Notes and 60 days after the allotment of the Notes.

The Initial Purchasers also may impose a penalty bid. This occurs when a particular Initial Purchaser repays to the Initial Purchasers a portion of the underwriting discount received by it because the Initial Purchasers have repurchased the Notes sold by or for the account of such Initial Purchaser in stabilizing or short cover transactions.

None of the Issuer, the Parent Guarantor and the Initial Purchasers makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the

Notes. In addition, none of the Issuer, the Parent Guarantor and the Initial Purchasers makes any representation that the Initial Purchasers will engage in such transactions or that such transactions, once commenced, will not be discontinued without notice.

Certain Relationships

The Initial Purchasers and some of their respective affiliates have from time to time provided and may in the future provide certain commercial banking, investment banking and advisory and other services to us, our shareholders and our affiliates for which they have received or will receive customary fees and expenses. Some of the Initial Purchasers or their respective affiliate have provided loans to the shareholders of the Parent Guarantor. The Initial Purchasers and their respective affiliates are full service financial institutions engaged in various activities which may include securities trading, commercial and investment banking, financial advice, investment management, principal investment, hedging, financing and brokerage activities. In the ordinary course of their various business activities, the Initial Purchasers and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investments and securities activities may involve our securities and other financial instruments, including the Notes. Certain of the Initial Purchasers or their respective affiliates are facility agents and/or lenders under Adaro Indonesia's financing agreements as described under "Description of Material Indebtedness" and, accordingly, may receive a portion of the net proceeds of the Notes pursuant to Adaro Indonesia's repayment of that indebtedness. See "Use of Proceeds."

Delivery of the Notes is expected on or about October 31, 2019, which is the fifth business day following the date of this Offering Memorandum (such settlement cycle being referred to as "T+5"). Under Rule 15c6-1 under the U.S. Securities Exchange Act of 1934, as amended, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes on the date of pricing or the next succeeding business day will be required, because the Notes initially will settle in T+5, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers who wish to trade the Notes on the pricing date or the next succeeding business day should consult their own advisors.

Selling Restrictions

The Notes have not been registered under the Securities Act or the securities laws of any other jurisdiction. The Issuer has not registered, and does not intend to register, as an investment company under the Investment Company Act, in reliance on the exception from registration provided by Section 3(c)(7) thereof. In the purchase agreement, each Initial Purchaser has agreed that, during the initial distribution of the Notes, as further described below, it will offer or sell Notes only (i) in compliance with Rule 144A, to investors that are both qualified institutional buyers as defined in Rule 144A and qualified purchasers as defined in the Investment Company Act, or (ii) outside the United States in compliance with Regulation S, to investors that are not U.S. persons as defined in Regulation S. In connection with sales outside the United States in compliance with Regulation S, the Initial Purchasers will send to each dealer to whom they sell Notes during such 40-day period a confirmation or other notice setting forth the restrictions on offers and sales of the Notes by a dealer within the United States or to, or for the account or benefit of, U.S. persons.

United States

The Notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Each of the Initial Purchasers has represented and warranted that it has not offered or sold, and agreed that it will not offer or sell, any Notes constituting part of its allotment within the United States except to investors who are both qualified institutional buyers in compliance with Rule 144A and qualified purchasers under the Investment Company Act. Accordingly, none of the Initial Purchasers nor any persons acting on each of Initial Purchasers' behalf have engaged or will engage in any directed selling efforts (as defined in Regulation S) or general solicitation and general advertising (as defined in Regulation D under the

Securities Act) with respect to the Notes. Terms used in this paragraph have the meaning given to them by Regulation S.

Each of the Initial Purchasers has represented and warranted that it has not entered and agrees that it will not enter into any contractual arrangement with any distributor (as that term is defined in Regulation S) with respect to the distribution or delivery of the Notes, except with their respective affiliates or with the prior written consent of the Issuer.

In addition, until 40 days after the commencement of the offering of the Notes, an offer or sale of Notes within the United States by a dealer (whether or not participating in this offering) may violate the registration requirements of the Securities Act.

European Economic Area

Each of the Initial Purchasers has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes to any retail investor in the European Economic Area. For the purposes of this provision:

- (a) the expression retail investor means a person who is one (or more) of the following:
 - (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, “MiFID II”); or
 - (ii) a customer within the meaning of Directive 2016/97/EU (as amended), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or
 - (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended); and
- (b) the expression an “offer” includes the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes.

United Kingdom

Each of the Initial Purchasers has represented, warranted and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the “FSMA”) received by it in connection with the issue or sale of any Notes in circumstances in which section 21(1) of the FSMA does not apply to the Issuer; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the Notes in, from or otherwise involving the United Kingdom.

Republic of Italy

The offering of the Notes has not been registered pursuant to Italian securities legislation and, accordingly, no Notes may be offered, sold or delivered, nor may copies of the Offering Memorandum or of any other document relating to the Notes be distributed in the Republic of Italy, except:

- (i) to qualified investors (*investitori qualificati*), as defined pursuant to Article 2 of Regulation (EU) No. 1129 of June 14, 2017 (the “PD Regulation”) and any applicable provision of Legislative Decree No. 58 of February 24, 1998, as amended (the “Financial Services Act”) and Italian CONSOB regulations; or

- (ii) in other circumstances which are exempted from the rules on public offerings pursuant to Article 1 of the PD Regulation, Article 34-ter of CONSOB Regulation No. 11971 of May 14, 1999, as amended from time to time, and the applicable Italian laws.

Any offer, sale or delivery of the Notes or distribution of copies of this Offering Memorandum or any other document relating to the Notes in the Republic of Italy under (i) or (ii) above must:

- (a) be made by an investment firm, bank or financial intermediary permitted to conduct such activities in the Republic of Italy in accordance with the Financial Services Act, CONSOB Regulation No. 20307 of February 15, 2018 (as amended from time to time) and Legislative Decree No. 385 of September 1, 1993 (as amended, the “Banking Act”);
- (b) comply with any other applicable laws and regulations or requirement imposed by CONSOB, the Bank of Italy (including the reporting requirements, where applicable, pursuant to Article 129 of the Banking Act and the implementing guidelines of the Bank of Italy, as amended from time to time) and/or any other Italian authority.

Hong Kong

Each of the Initial Purchasers has represented and agreed that (1) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and (2) it has not issued or had in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any invitation or advertisement or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Notes which are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) and any rules made under that Ordinance.

Singapore

Each of the Initial Purchasers has acknowledged that this Offering Memorandum has not been registered as a prospectus with MAS. Accordingly, each of the Initial Purchasers has represented, warranted and agreed that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

Securities or Securities-based derivative contracts (each term, as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

- (i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (ii) where no consideration is or will be given for the transfer;
- (iii) where the transfer is by operation of law;
- (iv) as specified in Section 276(7) of the SFA; or
- (v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Security-based Derivatives Contracts) Regulation 2018 of Singapore.

Notification under Section 309B of the SFA — In connection with Section 309B of the SFA and the CMP Regulations 2018, the Company has determined the classification of the Notes as prescribed capital markets products (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Indonesia

The Notes have not been, and will not be, registered with the OJK, and therefore, the Notes may not be offered or sold within Indonesia or to Indonesian citizens wherever they are domiciled in a manner which constitutes a public offer under Law No.8 of 1995 on Capital Markets and the implementing regulations. Accordingly, the Joint Global Coordinators and Bookrunners have represented and agreed that they will not, directly or indirectly, expressly or implicitly:

- offer the Notes to more than 100, or sell the Notes to more than 50, parties in Indonesia and/or Indonesian citizens wherever they are domiciled; and
- offer the Notes by way of mass media, including any newspaper, magazine, film, television, radio or other electronic media or any letter, brochure or other printed medium, distributed to more than 100 parties in Indonesia and/or to Indonesian citizens wherever they are domiciled.

Japan

The Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (the "Financial Instruments and Exchange Act"). Accordingly, each of the Initial Purchasers has represented, warranted and agreed that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Notes in Japan or to, or for benefit of, any resident of Japan (which term as used in this Offering Memorandum means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

TRANSFER RESTRICTIONS

The Notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Accordingly, the Notes are being offered and sold only (A) to “qualified institutional buyers,” as defined in Rule 144A under the Securities Act, (“qualified institutional buyers”) that are also “qualified purchasers,” as defined in Section 2(a)(51) of the Investment Company Act (“qualified purchasers”) (such Notes, the “Rule 144A Notes”) or (B) to non-U.S. persons outside the United States and purchasing the Notes in an offshore transaction in compliance with Regulation S under the Securities Act (such Notes, the “Regulation S Notes”).

The Rule 144A Notes and the Regulation S Notes will at all times be represented by separate global Notes and have separate CUSIP numbers.

By its purchase of Notes, each purchaser or beneficial owner of the Notes will be deemed to:

(1) represent that it is purchasing the Notes for its own account or an account with respect to which it exercises sole investment discretion and (1) with respect to the Rule 144A Notes, (a) is both a qualified institutional buyer and a qualified purchaser, and is aware that the sale to it is being made in reliance on Rule 144A; (b) is not a broker-dealer that owns and invests on a discretionary basis less than U.S.\$25 million in securities of unaffiliated issuers; and (c) is not a participant-directed employee plan, such as a 401(k) plan, or a trust fund as referred to in paragraph (a)(1)(i)(F) of Rule 144A that holds the assets of such a plan or (2) with respect to the Regulation S Notes, is a non-U.S. person outside the United States and is purchasing the Notes in an offshore transaction pursuant to Regulation S;

(2) acknowledge that the Notes (i) have not been and will not be offered in a transaction involving any public offering in the United States within the meaning of the Securities Act or registered under the Securities Act and (ii) may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except as set forth below;

(3) agree that if it should resell or otherwise transfer the Notes (and the guarantees), it will do so only (a) to the Issuer, (b) to a person it reasonably believes is both a qualified institutional buyer and a qualified purchaser that is purchasing for its own account or for the account of another qualified institutional buyer that is also a qualified purchaser and to whom notice is given that the transfer is being made in reliance on Rule 144A, all in compliance with Rule 144A (if available) or (c) to persons who are not U.S. persons and are outside the United States, in an offshore transaction in compliance with Regulation S under the Securities Act;

(4) represent that it is (A) a non-U.S. person outside the United States and is purchasing the Notes in an offshore transaction in compliance with Regulation S under the Securities Act or (B) is not (x) a partnership, common trust fund, special trust, pension fund or retirement plan or other entity in which the partners, beneficiaries, security owners or participants, as the case may be, may designate the particular investments to be made or the allocation thereof, unless each such partner, beneficiary, security owner or participant empowered alone or with other partners or participants to make such decisions is both a qualified institutional buyer and a qualified purchaser, (y) an entity that has invested more than 40% of its assets in securities of the Issuer, giving effect to the amount invested in collection with its acquisition of the Notes or a beneficial interest therein, or (z) an entity that was formed or is operated for the specific purpose of purchasing the Notes or investing in the Issuer, unless, in each case, each beneficial owner of its securities is both a qualified institutional buyer and a qualified purchaser;

(5) acknowledge that the Issuer may receive a list of participants holding positions in its securities from one or more book entry depositories;

(6) represent that it (A) is a non-U.S. person outside the United States and is purchasing the Notes in an offshore transaction in compliance with Regulation S under the Securities Act or (B) either (x) is not an entity

organized prior to April 30, 1996 that is excepted from the Investment Company Act pursuant to Section 3(c)(1) or 3(c)(7) thereof or (y) has received the consent of the beneficial owners of its securities with respect to its treatment as a “qualified purchaser” in the manner required by Section 2(a)(51)(C) of the Investment Company Act and the rules thereunder;

(7) understand that if any person acquiring a Note (or any beneficial interest therein) is not either (A) a non-U.S. person outside the United States and purchasing the Notes in an offshore transaction in compliance with Regulation S under the Securities Act or (B) both a qualified institutional buyer and a qualified purchaser (or fails to meet the other requirements set forth under the indenture) at the time of acquiring the Notes, the Issuer may regard the transaction as null and void and of no effect. If the purchaser or any subsequent purchaser or transferee of a note (or any beneficial interest therein) is determined not to have met either the foregoing Regulation S or the foregoing qualified institutional buyer and qualified purchaser requirements (and the other requirements set forth in the indenture) at the time it acquired such Notes (or such beneficial interest), the Issuer may compel such person to sell or transfer, as applicable, such Notes (or such beneficial interest) within ten days after notice of the sale requirement is given, to a person that is a non-U.S. person or is both a qualified institutional buyer and a qualified purchaser (and, in each case, meets the other requirements as set forth in the indenture). If such holder (or beneficial owner) fails to effect the sale or transfer, as applicable, within such ten-day period, the Issuer has the right, without further notice to such holder, to compel such holder to sell or transfer, as applicable, such Notes (or such beneficial interest) to a purchaser selected by the Issuer who meets the requirements set forth in the indenture on such terms as the Issuer may choose. The Issuer may select the purchaser by soliciting one or more bids from one or more brokers or other market professionals that regularly deal in securities similar to the Notes, and selling such Notes to the highest such bidder. However, the Issuer may select a purchaser by any other means determined in its sole discretion;

(8) understand that at all times the Notes (whether Rule 144A Notes or Regulation S Notes) will bear a legend to the following effect:

THIS NOTE HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND PT ADARO INDONESIA (THE “ISSUER”) HAS NOT BEEN REGISTERED AND DOES NOT INTEND TO REGISTER AS AN INVESTMENT COMPANY UNDER THE UNITED STATES INVESTMENT COMPANY ACT OF 1940, AS AMENDED (THE “INVESTMENT COMPANY ACT”) AND MAY RELY ON THE EXCLUSION FROM THE DEFINITION OF INVESTMENT COMPANY PROVIDED BY SECTION 3(C)(7) OF THE INVESTMENT COMPANY ACT. THIS NOTE MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE ACQUIRER:

(1) REPRESENTS THAT IT AND ANY ACCOUNT FOR WHICH IT IS ACTING IS EITHER (1) BOTH A “QUALIFIED INSTITUTIONAL BUYER” (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) AND A “QUALIFIED PURCHASER” (AS DEFINED IN SECTION 2(A)(51) OF THE INVESTMENT COMPANY ACT) OR (2) A NON-U.S. PERSON OUTSIDE THE UNITED STATES AND IS PURCHASING THE NOTES IN AN OFFSHORE TRANSACTION PURSUANT TO REGULATION S AND, IN BOTH CASES, THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT;

(2) AGREES FOR THE BENEFIT OF THE ISSUER THAT IT WILL NOT OFFER, SELL, PLEDGE OR OTHERWISE TRANSFER THIS NOTE OR ANY BENEFICIAL INTEREST HEREIN, EXCEPT IN ACCORDANCE WITH THE SECURITIES ACT AND ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES AND ONLY

(A) TO THE ISSUER;

(B) TO A PERSON IT REASONABLY BELIEVES IS A “QUALIFIED INSTITUTIONAL BUYER” AND THAT IS ALSO A “QUALIFIED PURCHASER” PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER THAT IS ALSO A QUALIFIED PURCHASER TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A; OR

(C) TO A NON-U.S. PERSON OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT;

(3) AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THIS SECURITY IS TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS RESTRICTIVE LEGEND. THIS LEGEND WILL ONLY BE REMOVED WITH CONSENT OF THE ISSUER, AND WILL NOT BE REMOVED SO LONG AS THE ISSUER CONTINUES TO RELY ON SECTION 3(C)(7) UNDER THE INVESTMENT COMPANY ACT;

(4) REPRESENTS THAT IT IS (A) A NON-U.S. PERSON OUTSIDE THE UNITED STATES AND IS PURCHASING THE NOTES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S OR (B) NOT (i) A BROKER-DEALER THAT OWNS AND INVESTS ON A DISCRETIONARY BASIS LESS THAN \$25 MILLION IN SECURITIES OF UNAFFILIATED ISSUERS OR (ii) A PARTICIPANT-DIRECTED EMPLOYEE PLAN, SUCH AS A 401(K) PLAN, OR A TRUST FUND AS REFERRED TO IN PARAGRAPH (A)(1)(I)(F) OF RULE 144A THAT HOLDS THE ASSETS OF SUCH A PLAN;

(5) REPRESENTS THAT IT IS (A) A NON-U.S. PERSON OUTSIDE THE UNITED STATES AND IS PURCHASING THE NOTES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S OR (B) NOT (X) A PARTNERSHIP, COMMON TRUST FUND, SPECIAL TRUST, PENSION FUND OR RETIREMENT PLAN OR OTHER ENTITY IN WHICH THE PARTNERS, BENEFICIARIES, SECURITY OWNERS OR PARTICIPANTS, AS THE CASE MAY BE, MAY DESIGNATE THE PARTICULAR INVESTMENTS TO BE MADE OR THE ALLOCATION THEREOF, UNLESS EACH SUCH PARTNER, BENEFICIARY, SECURITY OWNER OR PARTICIPANT EMPOWERED ALONE OR WITH OTHER PARTNERS OR PARTICIPANTS TO MAKE SUCH DECISIONS IS BOTH A QUALIFIED INSTITUTIONAL BUYER AND A QUALIFIED PURCHASER, (Y) AN ENTITY THAT HAS INVESTED MORE THAN 40% OF ITS ASSETS IN SECURITIES OF THE ISSUER, GIVING EFFECT TO THE AMOUNT INVESTED IN CONNECTION WITH ITS ACQUISITION OF THE NOTES OR A BENEFICIAL INTEREST THEREIN, OR (Z) AN ENTITY THAT WAS FORMED OR IS OPERATED FOR THE SPECIFIC PURPOSE OF PURCHASING THE NOTES OR INVESTING IN THE ISSUER, UNLESS, IN EACH CASE, EACH BENEFICIAL OWNER OF ITS SECURITIES IS BOTH A QUALIFIED INSTITUTIONAL BUYER AND A QUALIFIED PURCHASER;

(6) UNDERSTANDS THAT THE ISSUER MAY RECEIVE A LIST OF PARTICIPANTS HOLDING POSITIONS IN ITS SECURITIES FROM ONE OR MORE BOOK ENTRY DEPOSITORIES;

(7) REPRESENTS THAT IT (1) IS A NON-U.S. PERSON OUTSIDE THE UNITED STATES AND IS PURCHASING THE NOTES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S OR (2) EITHER (X) IS NOT AN ENTITY ORGANIZED PRIOR TO APRIL 30, 1996 THAT IS EXCEPTED FROM THE INVESTMENT COMPANY ACT PURSUANT TO SECTION 3(C)(1) OR 3(C)(7) THEREOF OR (Y) HAS RECEIVED THE CONSENT OF THE BENEFICIAL OWNERS OF ITS SECURITIES WITH RESPECT TO ITS TREATMENT AS A “QUALIFIED PURCHASER” IN THE MANNER REQUIRED BY SECTION 2(A)(51)(C) OF THE INVESTMENT COMPANY ACT AND THE RULES THEREUNDER; AND

(8) UNDERSTANDS THAT IF ANY PERSON ACQUIRING A NOTE (OR ANY BENEFICIAL INTEREST THEREIN) IS NOT (A) A NON-U.S. PERSON OUTSIDE THE UNITED STATES AND PURCHASING THE NOTES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT OR (B) BOTH A QUALIFIED INSTITUTIONAL BUYER AND A QUALIFIED PURCHASER (OR FAILS TO MEET THE OTHER REQUIREMENTS SET FORTH UNDER THE INDENTURE) AT THE TIME OF ACQUISITION THEREOF, THE ISSUER MAY REGARD THE TRANSACTION AS NULL AND VOID AND OF NO EFFECT. IF THE PURCHASER OR ANY SUBSEQUENT PURCHASER OR TRANSFEREE OF A NOTE (OR ANY

BENEFICIAL INTEREST THEREIN) IS DETERMINED NOT TO HAVE MET EITHER THE FOREGOING REGULATION S REQUIREMENT OR THE FOREGOING QUALIFIED INSTITUTIONAL BUYER AND QUALIFIED PURCHASER REQUIREMENTS (AND, IN EACH CASE, THE OTHER REQUIREMENTS SET FORTH IN THE INDENTURE) AT THE TIME IT ACQUIRED SUCH NOTES (OR SUCH BENEFICIAL INTEREST), THE ISSUER MAY COMPEL SUCH PERSON TO SELL OR TRANSFER, AS APPLICABLE, SUCH NOTES (OR SUCH BENEFICIAL INTEREST) WITHIN TEN DAYS AFTER NOTICE OF THE SALE REQUIREMENT IS GIVEN, TO A PERSON THAT IS EITHER A NON-U.S. PERSON OR A QUALIFIED INSTITUTIONAL BUYER AND A QUALIFIED PURCHASER (AND, IN EACH CASE, MEETS THE OTHER REQUIREMENTS AS SET FORTH IN THE INDENTURE). IF SUCH HOLDER (OR BENEFICIAL OWNER) FAILS TO EFFECT THE SALE OR TRANSFER, AS APPLICABLE, WITHIN SUCH TEN-DAY PERIOD, THE ISSUER HAS THE RIGHT, WITHOUT FURTHER NOTICE TO SUCH HOLDER, TO COMPEL SUCH HOLDER TO SELL OR TRANSFER, AS APPLICABLE, SUCH NOTES (OR SUCH BENEFICIAL INTEREST) TO A PURCHASER SELECTED BY THE ISSUER WHO MEETS THE REQUIREMENTS SET FORTH IN THE INDENTURE ON SUCH TERMS AS THE ISSUER MAY CHOOSE. THE ISSUER MAY SELECT THE PURCHASER BY SOLICITING ONE OR MORE BIDS FROM ONE OR MORE BROKERS OR OTHER MARKET PROFESSIONALS THAT REGULARLY DEAL IN SECURITIES SIMILAR TO THE NOTES, AND SELLING SUCH NOTES TO THE HIGHEST SUCH BIDDER. HOWEVER, THE ISSUER MAY SELECT A PURCHASER BY ANY OTHER MEANS DETERMINED IN ITS SOLE DISCRETION.

(9) agree that it will deliver to each person to whom it transfers Notes notice of the above resale restrictions;

(10) acknowledge that the Issuer, the Parent Guarantor and the Initial Purchasers will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements, and agree that if any of the acknowledgments, representations or warranties deemed to have been made by it by its purchase of Notes are no longer accurate, it shall promptly notify the Issuer, the Parent Guarantor and the Initial Purchasers; if they are acquiring Notes as a fiduciary or agent for one or more investor accounts, they represent that they have sole investment discretion with respect to each such account and they have full power to make the foregoing acknowledgments, representations and agreements on behalf of each such account;

(11) acknowledge that each of the Rule 144A Notes and the Regulation S Notes will be issued with separate CUSIP numbers;

(12) as a purchaser of Regulation S Notes, if applicable, agree and acknowledge that the Regulation S Notes are contractually restricted, that a sale of the Regulation S Notes in reliance on Regulation S does not cause them to cease to be contractually restricted and that the Regulation S Notes will remain contractually restricted so long as they are outstanding; and

(13) represent that no portion of the assets used by such purchaser or holder to purchase or hold the Notes or any interest therein constitutes assets of any (a) employee benefit plan subject to Title I of the U.S. Employee Retirement Income Security Act of 1974, as amended (“ERISA”), (b) plan, account or other arrangement that is subject to Section 4975 of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), or (c) entity whose underlying assets are considered to include “plan assets” of any such plan, account or arrangement.

(14) You acknowledge that this Offering Memorandum has not been and will not be registered as a prospectus with the Monetary Authority of Singapore. Accordingly, you represent and warrant that you have not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and have not circulated or distributed, nor will it circulate or distribute, this Offering Memorandum or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA, (ii) to a relevant person (as defined in

Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

- i. to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- ii. where no consideration is or will be given for the transfer;
- iii. where the transfer is by operation of law;
- iv. as specified in Section 276(7) of the SFA; or
- v. as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018 of Singapore.

Notification under Section 309B(1)(c) of the SFA: In connection with Section 309B of the SFA and the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore (the "CMP Regulations 2018"), the Company has determined the classification of the Notes as prescribed capital markets products (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

(15) You acknowledge that the Issuer, the Parent Guarantor, the Initial Purchasers and others will rely upon the truth and accuracy of the above acknowledgments, representations and agreements. You agree that if any of the acknowledgments, representations or agreements you are deemed to have made by your purchase of Notes is no longer accurate, you will promptly notify the Issuer, the Parent Guarantor and the Initial Purchasers. If you are purchasing any Notes as a fiduciary or agent for one or more investor accounts, you represent that you have sole investment discretion with respect to each of those accounts and that you have full power to make the above acknowledgments, representations and agreements on behalf of each account.

RATINGS

The Notes are expected to be rated “Ba1” by Moody’s and “BBB-” by Fitch. The ratings reflect the rating agencies’ assessment of the likelihood of timely payment of the principal of and interest on the Notes. The ratings do not address the payment of any additional amounts and do not constitute recommendations to purchase, hold or sell the Notes inasmuch as such ratings do not comment as to market price or suitability for a particular investor. There can be no assurance that the ratings will remain in effect for any given period or that the ratings will not be revised by such rating agencies in the future if in their judgment circumstances so warrant. Each such rating should be evaluated independently of any other rating on the Notes. See “Risk Factors — Risks Relating to the Notes and the Guarantees — The ratings assigned to the Notes may be lowered or withdrawn.”

LEGAL MATTERS

Certain legal matters with respect to the Notes will be passed upon for us and Adaro Indonesia by Milbank LLP, as to matters of United States federal and New York law, and Hendra Soenardi, as to matters of Indonesian law. Certain legal matters will be passed upon for the Initial Purchasers by Allen & Overy (Asia) Pte Ltd, with respect to United States federal and New York law, and Ginting & Reksodiputro, as to matters of Indonesian law.

INDEPENDENT ACCOUNTANTS

The consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries as of and for each of the years ended December 31, 2018, 2017 and 2016 included in this Offering Memorandum have been audited by KAP Tanudiredja, Wibisana, Rintis & Rekan (a member of the PricewaterhouseCoopers network of firms), independent accountants, as stated in their report appearing herein.

With respect to the unaudited interim consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries as of June 30, 2019 and for the six-month periods ended June 30, 2019 and 2018 included in this Offering Memorandum, KAP Tanudiredja, Wibisana, Rintis & Rekan (a member of the PricewaterhouseCoopers network of firms) reported that they have applied limited procedures in accordance with professional standards in Indonesia for a review of such information. However, their separate report dated October 11, 2019 appearing herein states that they did not audit and they do not express an opinion on that unaudited interim consolidated financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied.

INDEPENDENT MINING EXPERT

Our proven and probable coal reserve figures presented in this Offering Memorandum are estimates. The estimates for Adaro Indonesia and attached hereto as Appendix A have been prepared by Adaro Indonesia and reviewed by RPM, an independent mining expert. RPM has provided, and is expected to continue to provide, mining consulting services to us.

SUMMARY OF CERTAIN DIFFERENCES BETWEEN INDONESIAN FAS AND U.S. GAAP

Our consolidated financial information included in this Offering Memorandum has been prepared and presented in conformity with Indonesian Financial Accounting Standards (“Indonesian FAS”). Certain differences exist between Indonesian FAS and U.S. GAAP which might be material to the financial information herein. The matters described below summarize certain differences between Indonesian FAS and U.S. GAAP that may be material. We are responsible for preparing the summary below. We have not prepared a complete reconciliation of our consolidated financial statements and related footnote disclosures between Indonesian FAS and U.S. GAAP and have not quantified such differences. Accordingly, we cannot assure you that the following summary of differences between Indonesian FAS and U.S. GAAP is complete. In making an investment decision, investors must rely upon their own examination of the Company and its subsidiaries, the terms of the offering and the financial information contained herein. Potential investors should consult their own professional advisors for an understanding of the differences between Indonesian FAS and U.S. GAAP and how those differences might affect the financial information herein.

Consolidation

Indonesian FAS focuses on the concept of control in determining whether a parent-subsidiary relationship exists. “Control” is defined as the power to govern the financial and operating policies of an entity to obtain benefits from its activities. The standard and interpretation provide indicators of when the substance of a relationship indicates control is present.

In assessing control of an entity, an investor should consider the entity’s purpose and design to identify the relevant activities, how decisions about the relevant activities are made, who has the current ability to direct those activities, and who is exposed or has rights to the returns from those activities. Only substantive rights can provide power.

The greater an investor’s exposure to variability of returns, the greater its incentive to obtain rights to give it power (i.e., it is an indicator of power and is not by itself determinative of having power).

When an entity is controlled by voting rights, control is presumed to exist when a parent owns, directly or indirectly, more than 50 percent of an entity’s voting power. Control also exists when a parent owns half or less of the voting power but has legal or contractual rights to control either the majority of the entity’s voting power or the board of directors. Control may exist even in cases where an entity owns little or none of a structured equity. The application of the control concept requires, in each case, judgment in the context of all relevant factors.

Under U.S. GAAP, all consolidation decisions are evaluated first under the Variable Interest Entity (“VIE”) model. VIEs are evaluated for consolidation based on all contractual, ownership, or other interest that expose their holders to the risks and rewards of the entity, where such interests are termed variable interests. An entity with a variable interest in a VIE is required to qualitatively assess the determination of the primary beneficiary of the VIE. In applying the qualitative model, an entity is deemed to have a controlling financial interest if it meets both of the following criteria:

- Power to direct activities of the VIE that most significantly impact the VIE’s economic performance (power criterion);
- Obligation to absorb losses from or right to receive benefits of the VIE that could potentially be significant to the VIE (losses/benefits criteria). In assessing whether an enterprise has a controlling financial interest in an entity, it should consider the entity’s purpose and design, including the risks that the entity was designed to create and pass through to its variable interest holders.

Only one enterprise, if any, is expected to be identified as the primary beneficiary of a VIE. Although more than one enterprise could meet the losses/benefits criterion, only one enterprise, if any, will have the power to direct the activities of a VIE that most significantly impact the entity’s economic performance.

If an entity is determined not to be a VIE, it is assessed under the voting interest model. Unlike Indonesian FAS, only actual voting rights are considered. Under the voting interest model, control can be direct or indirect. In certain unusual circumstances, control may exist with less than 50 percent ownership, when contractually supported.

Under Indonesian FAS, consolidated financial statements are prepared by using uniform accounting policies for like transactions and events in similar circumstances for all of the entities in a group.

Under U.S. GAAP, consolidated financial statements are also prepared by using uniform accounting policies for all of the entities in a group. However, limited exceptions exist when a subsidiary has specialized industry accounting principles. Retention of the specialized accounting policy in consolidation is permitted in such cases.

Investments in Associates

Under Indonesian FAS, when determining significant influence, which is, in general, an investment of 20% or more voting power of the equity of an investee (including potential voting rights). Only currently exercisable potential voting rights are considered in determining whether the investor exerts significant influence over the investee. However, potential voting rights are not considered in the measurement of the equity earnings recorded by the investor.

Under U.S. GAAP, when determining significant influence, which is, in general, an investment of 20% or more of the voting common stock of an investee, potential voting rights are generally not considered.

Under Indonesian FAS, an investor's financial statements are prepared using uniform accounting policies for similar transactions and events. This also applies to equity method investees.

Under U.S. GAAP, the equity investee's accounting policies do not have to conform to the investor's accounting policies if the investee follows an acceptable alternative U.S. GAAP treatment.

Under Indonesian FAS, an investor should assess whether objective indicators of impairment exist based on the "loss event" criteria as described in the applicable accounting standard. A significant or prolonged decline in the fair value of an investment in an equity instrument below its cost is considered objective evidence of impairment. If there are objective indicators that the investment may be impaired, the investment is tested for impairment in accordance with impairment of assets standard. Impairments of equity method investments can be reversed.

Under U.S. GAAP, an investor should determine whether a loss in the fair value of an investment below its carrying value is a temporary decline. If it is other than temporary, the investor calculates an impairment as the excess of the investment's carrying amount over the fair value. Reversals of impairments on equity method investments are prohibited.

Under Indonesian FAS, unless an entity has incurred a legal or constructive obligation, losses in excess of the investment are not recognized. The concept of an imminent return to profitable operations does not exist under IFRS.

Under U.S. GAAP, even without a legal or constructive obligation to fund losses, a loss in excess of the investment amount (i.e., a negative or liability investment balance) should be recognized when the imminent return to profitable operations by an investee appears to be assured.

Indonesian FAS and U.S. GAAP have different disclosure requirements for interests in subsidiaries, joint arrangements and associates.

Investments in Joint Ventures

Under Indonesian FAS, a joint arrangement is a contractual agreement whereby two or more parties undertake an economic activity that is subject to joint control. Joint control is the contractually agreed sharing of control of an economic activity. Unanimous consent is required for the relevant activities of the parties sharing control, but not necessarily of all parties in the arrangement.

Under Indonesian FAS, joint arrangements are classified in two types: (i) joint operations, which give parties to the arrangement direct rights to the assets and obligations for the liabilities; and (ii) joint ventures, which give the parties rights to the net asset of the arrangement.

Under U.S. GAAP, the term “joint venture” refers only to jointly controlled entities, where the arrangement is carried on through a separate entity. A corporate joint venture is defined as a corporation owned and operated by a small group of businesses as a separate and specific business or project for the mutual benefit of the members of the group. Most joint venture arrangements give each venturer (investor) participating rights over the joint venture (with no single venturer having unilateral control), and each party sharing control must consent to the venture’s operating, investing, and financing decisions.

Under Indonesian FAS, the classification of a joint arrangement as a joint venture or a joint operation determines the investor’s accounting. An investor in a joint venture must account for its interest using the equity method. An investor in a joint operation accounts for its share of assets, liabilities, income and expenses based on its direct rights and obligations. If the joint operation constitutes a business, the investor must apply the relevant principles on business combination accounting standard, and other standards, and disclose the related information required under those standards.

A joint operator that increases its interest in a joint operation that constitutes a business should not remeasure previously held interests in the joint operation when joint control is retained. Similarly, when an entity that has an interest (but not joint control) obtains joint control, previously held interests are not remeasured.

Under U.S. GAAP, prior to determining the accounting model, an entity first assesses whether the joint venture is a VIE. If the joint venture is a VIE, the accounting model discussed in “Consolidation” earlier is applied. Joint ventures often have a variety of service, purchase, and/or sales agreements, as well as funding and other arrangements that may affect the entity’s status as a VIE. Equity interests are often split 50-50 or near 50-50, making nonequity interests (i.e., any variable interests) highly relevant in consolidation decisions. After considering all relevant contracts and governing documents and a joint venture is within the scope of the variable interest model, consolidation is required.

If the joint venture is not a VIE, venturers apply the equity method to recognize the investment in a jointly controlled entity. Proportionate consolidation is generally not permitted except for unincorporated entities operating in certain industries. A full understanding of the rights and responsibilities conveyed in management, shareholder, and other governing documents is necessary.

The application of equity method of accounting — conforming accounting policies, impairment, losses in excess of an investor’s interest and disclosures for joint ventures are similar with investment in associates as described above.

Business Combinations

The business combinations guidance states that for a business combination to occur, an acquirer must obtain control over a business. Indonesian FAS and U.S. GAAP define control differently. Consequently, the same transaction may be accounted for as a business combination under U.S. GAAP, but not under Indonesian FAS, or vice versa.

Under Indonesian FAS, an investor has control over an investee when all of the following elements are present:

- Power over the investee;
- Exposure, or rights, to variable returns from its involvement with the investee; and
- Ability to use power to affect the returns.

Under U.S. GAAP, control is evaluated first under the VIE model. If VIE model is not met, it is evaluated under the voting interest model.

Under Indonesian FAS, non-controlling interest components that are present ownership interests and entitle their holders to a proportionate share of the acquiree's net assets may be measured at (i) fair value (including goodwill) or (ii) the non-controlling interest's proportionate share of the fair value of the acquiree's identifiable net assets (excluding goodwill) on an acquisition by acquisition basis.

Under U.S. GAAP, non-controlling interest is measured at fair value (including goodwill).

Under Indonesian FAS, the acquired contingent liabilities are recognized as of the acquisition date provided that their fair value can be measured reliably, while contingent assets are not recognized. The contingent liability is measured subsequently at the higher of the amount initially recognized less, if appropriate, cumulative amortization recognized under the revenue guidance SFAS 23 on "Revenue" or the best estimate of the amount required to settle (under the provisions guidance — SFAS 57 on "Provisions, Contingent Liabilities, and Contingent Assets"). Contingent assets are not recognized.

Under U.S. GAAP, acquired contingent assets and liabilities are recognized at fair value in accordance with Accounting Standards Codification 820 on "Fair Value Measurement and Disclosures" ("ASC 820"), if the fair value can be determined during the measurement period; otherwise, those assets or liabilities are recognized at the acquisition date in accordance with ASC 450 on "Contingencies" ("ASC 450"), if the related criteria for recognition are met. If contingent assets and liabilities are initially recognized at fair value, an acquirer should develop a systematic and rational basis for subsequently measuring and accounting for those assets and liabilities depending on their nature. If amounts are initially recognized and measured in accordance with ASC 450, the subsequent accounting and measurement should be based on that guidance.

Under Indonesian FAS, no guidance exists for pushdown accounting. The general view is that entities may not use the hierarchy in SFAS 25 on "Accounting Policies, Changes in Accounting Estimates, and Errors" to refer to U.S. GAAP and apply pushdown accounting in the separate financial statements of an acquired subsidiary, because the application of pushdown accounting will result in the recognition and measurement of assets and liabilities in a manner that conflicts with certain standards and interpretations under Indonesian FAS.

Under U.S. GAAP, companies have the option to apply pushdown accounting in their separate financial statements upon a change-in-control event. The election is available to the acquired company, as well as to any direct or indirect subsidiaries of the acquired company. If an acquired company elects to apply pushdown accounting, the acquired company should reflect the new basis of accounting established by the parent for the individual assets and liabilities of the acquired company arising from the acquisition in its standalone financial statements.

Under pushdown accounting, goodwill should be calculated and recognized consistent with business combination accounting. Bargain purchase gains, however, should not be recognized in the income statement of the acquired company that applies pushdown accounting. Instead, they should be recognized in additional paid-in capital within equity. Debt (including acquisition related debt) and any other liabilities of the acquirer should be recognized by the acquired company only if they represent an obligation of the acquired company.

Long-Lived Assets

Under Indonesian FAS, historical cost is the primary basis of accounting. However, Indonesian FAS permits the revaluation to fair value of some property, plant, and equipment; and investment property and inventories in certain industries (e.g., commodity broker/dealer). Indonesian FAS also requires that biological assets (except bearer plants) be reported at fair value.

U.S. GAAP generally utilizes historical cost and prohibits revaluations except for certain categories of financial instruments, which are carried at fair value.

Under Indonesian FAS, separate significant components of property, plant, and equipment with different economic lives should be recorded and depreciated separately. The guidance includes a requirement to review residual values and useful lives at each balance sheet date.

Under U.S. GAAP, the component approach is generally not required for depreciation. While it would generally be expected that the appropriateness of significant assumptions within the financial statements would be reassessed at each reporting period, there is no explicit requirement for an annual review of residual values. Further, there is also no explicit requirement to evaluate the remaining useful life for property, plant, and equipment.

Under Indonesian FAS, eligible borrowing costs that are capitalized as part of a qualifying long-lived asset include exchange rate differences from foreign currency borrowings to the extent that such borrowing costs are regarded as an adjustment to interest costs. For borrowings associated with a specific qualifying long-lived asset, actual borrowing costs are capitalized and offset by investment income earned on those borrowings.

Under U.S. GAAP, eligible borrowing costs that are capitalized as part of qualifying long-lived assets do not include exchange rate differences. Interest earned on the investment of borrowed funds generally cannot offset interest costs incurred during the period. For borrowings associated with a specific qualifying long-lived asset, borrowing costs equal to the weighted-average accumulated expenditures times the borrowing rate are capitalized.

Under Indonesian FAS, costs that represent a replacement of a previously identified component of a long-lived asset, such as costs of a major overhaul, are capitalized if future economic benefits are probable and the costs can be reliably measured; otherwise, expensed as incurred.

Under U.S. GAAP, multiple accounting models have evolved in practice for costs related to a major overhaul, including (i) expense costs as incurred, (ii) capitalize costs and amortize them through the date of the next overhaul or (iii) follow the approach provided under Indonesian FAS or the International Financial Reporting Standards.

Under Indonesian FAS, investment property is separately defined as property (land and/or buildings) held in order to earn rentals and/or for capital appreciation. The definition does not include owner-occupied property, property held for sale in the ordinary course of business, or property being constructed or developed for such sale. Properties under construction or development for future use as investment properties are within the scope of investment properties.

Investment property is initially measured at cost (transaction costs are included). Thereafter, it may be accounted for on a historical-cost basis or on a fair value basis as an accounting policy choice. When fair value is applied, the gain or loss arising from a change in the fair value is recognized in the income statement. The carrying amount is not depreciated.

The election to account for investment property at fair value may also be applied to leased property.

Under U.S. GAAP, there is no specific definition of investment property. The historical-cost model is used for most real estate companies and operating companies holding investment-type property. Investor entities — such as many investment companies, insurance companies' separate accounts, bank-sponsored real estate trusts, and employee benefit plans that invest in real estate — carry their investments at fair value. The fair value alternative for leased property does not exist.

Impairment of Long-Lived Assets and Goodwill, and Intangible Assets

Under Indonesian FAS, impairment of long-lived assets is determined using the “one-step” approach, which requires that impairment loss calculation be performed if impairment indicators exist. Impairment loss is recognized when the carrying amount of the long-lived asset exceeds its recoverable amount. Recoverable amount is the higher of (i) fair value less costs to sell, or (ii) value in use.

Fair value less costs of disposal represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date less costs of disposal. Current and deferred tax balances, with the exception of unused tax losses, and their associated cash flows, are taken into account when calculating fair value less costs of disposal, if a market participant would also include them.

Value in use represents entity-specific or CGU-specific future pretax cash flows discounted to present value by using a pretax, market-determined rate that reflects the current assessment of the time value of money and the risks specific to the asset or CGU for which the cash flow estimates have not been adjusted.

Under U.S. GAAP, impairment of long-lived assets is determined using the “two-steps” approach, which requires that a recoverability test be performed first. Under a recoverability test, the carrying amount of the long-lived asset is compared with the sum of the future undiscounted cash flows generated through use and eventual disposition. If the carrying amount is lower than the undiscounted cash flows, no impairment loss is recognized, although it might be necessary to review depreciation (or amortization) estimates and methods for the related asset. If it is determined that the long-lived asset is not recoverable (the carrying amount is higher than the undiscounted cash flows), an impairment loss is measured as the difference between the carrying amount and fair value.

Fair value is defined as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date (an exit price). Fair value should consider the impact of the related current and deferred tax balances and should be based on the assumptions of market participants and not those of the reporting entity.

Under Indonesian FAS, changes in market interest rates can potentially trigger impairment and, hence, are impairment indicators.

Under U.S. GAAP, changes in market interest rates are not considered impairment indicators.

Under Indonesian FAS, goodwill is allocated to a cash-generating unit (“CGU”) or group of CGUs that represents the lowest level within the entity at which the goodwill is monitored for internal management purposes and cannot be larger than an operating segment (before aggregation). The use of qualitative assessment in determining the impairment of goodwill (and indefinite-lived intangibles) is not permitted. Impairment of goodwill (and indefinite-lived intangibles) is determined using the “one-step” approach, which requires that an impairment test be performed at the CGU level by comparing the CGU’s carrying amount (including goodwill) and its recoverable amount. Impairment loss on the CGU, which is the amount by which the CGU’s carrying amount (including goodwill) exceeds its recoverable amount, is allocated first to reduce goodwill to zero, then, the carrying amount of other assets in the CGU are reduced on a pro rata basis based on the carrying amount of each asset.

Under U.S. GAAP, goodwill is assigned to a reporting unit, which is defined as an operating segment or one level below an operating segment (component). The determination of reporting units is based on a segment reporting structure. When performing the goodwill impairment test, an entity may first assess qualitative factors to determine whether the quantitative goodwill impairment test is necessary. If the entity determines, based on the qualitative assessment, that it is more likely than not that the fair value of a reporting unit is below its carrying amount, the impairment test is performed. An entity can bypass the qualitative assessment for any reporting unit in any period and proceed directly to the quantitative assessment.

Under Indonesian FAS, the reversal of impairment loss previously recognized is prohibited for goodwill, while other assets must be reviewed at the end of each reporting period for reversal indicators. If appropriate, impairment loss should be reversed up to the newly estimated recoverable amount, not to exceed the initial carrying amount adjusted for depreciation.

Under U.S. GAAP, the reversal of impairment loss previously recognized is prohibited for all assets to be held and used.

Asset Retirement Obligations

Under Indonesian FAS, management’s best estimate of the costs of dismantling and removing item or restoring the site on which it is located is required to be recorded when an obligation exists. The estimate is to be based on a present obligation (legal or constructive) that arises as a result of acquisition, construction or development of a long-lived asset. If it is not clear whether a present obligation exists, the entity may evaluate the evidence under a more-likely-than-not threshold. This threshold is evaluated in relation to the likelihood of settling the obligation.

The measurement of the liability is based on the present of the expenditure expected to be required to settle the obligation. The anticipated cash flows are discounted using a pre-tax discount rate (or rates) that reflect(s) current market assessments of the time value of money and the risks specific to the liability (for which the cash flow estimates have not been adjusted) if the effect is material. The estimated liability shall be reviewed at the end of each reporting period and adjusted to reflect the current best estimates.

Changes in the measurement of an existing decommissioning, restoration, or similar liability that result from changes in the estimated timing or amount of the cash outflows or other resources, or a change in the discount rate, adjust the carrying value of the related asset under the cost model. Adjustments may result in an increase of the carrying amount of an asset beyond its recoverable amount. An impairment loss would result in such circumstances. Adjustments may not reduce the carrying amount of an asset to a negative value. Once the carrying value reaches zero, further reductions are recorded in profit and loss. The periodic unwinding of the discount is recognized in profit or loss as a finance cost as it occurs.

Under U.S. GAAP, asset retirement obligations (AROs) are recorded at fair value and are based upon the legal obligation that arises as a result of the acquisition, construction, or development of a long-lived asset.

The use of a credit-adjusted, risk-free rate is required for discounting purposes when an expected present value technique is used for estimating the fair value of the liability. A fair value measurement should include a risk premium reflecting the amount that market participants would demand as compensation for the uncertainty inherent in the cash flows.

The guidance also requires an entity to measure changes in the liability for an ARO due to passage of time by applying an interest method of allocation to the amount of the liability at the beginning of the period. The interest rate used for measuring that change would be the credit-adjusted, risk-free rate that existed when the liability, or portion thereof, was initially measured.

In addition, changes to the undiscounted cash flows are recognized as an increase or a decrease in both the liability for an ARO and the related asset retirement cost. Upward revisions are discounted by using the current credit-adjusted, risk-free rate. Downward revisions are discounted by using the credit-adjusted, risk-free rate that existed when the original liability was recognized. If an entity cannot identify the prior period to which the downward revision relates, it may use a weighted average, credit-adjusted, risk-free rate to discount the downward revision to estimated future cash flows.

Inventory

Under Indonesian FAS, cost of inventory is generally determined using the first-in, first-out ("FIFO") or weighted average cost method. The use of the last-in, first-out ("LIFO") method is prohibited.

Under U.S. GAAP, the cost of inventory may be determined using the LIFO method in addition to the FIFO or weighted-average cost method.

Under Indonesian FAS, inventory provisions related to adjustments for the lower of cost and net realizable value can be written back up if there is clear evidence that the net realizable value has increased because of the change in economic circumstances.

Under U.S. GAAP, a provision to write down inventories to the lower of cost and net realizable value cannot be reversed should the market value recover prior to the sale or disposition because of the change in economic circumstances. As a result, under U.S. GAAP, write-downs of inventory can only be recovered through a sale or a disposition.

Provisions and Contingencies

Under Indonesian FAS, a contingent liability is defined as a possible obligation from a past event whose outcome will be confirmed only by the occurrence or nonoccurrence of one or more uncertain future events not wholly within the entity's control.

A contingent liability is not recognized. A contingent liability becomes a provision and is recorded when three criteria are met: (1) a present obligation from a past event exists, (2) it is probable that an outflow of resources will be required to settle the obligation, and (3) a reliable estimate can be made.

The term “probable” is used for describing a situation in which the outcome is more likely than not to occur. Generally, the phrase “more likely than not” denotes any chance greater than 50%.

The amount recognized should be the best estimate of the expenditure required (the amount an entity would rationally pay to settle or transfer to a third party the obligation at the balance sheet date).

Where there is a continuous range of possible outcomes and each point in that range is as likely as any other, the midpoint of the range is used.

The amount of a provision to be recorded is the present value of the expenditure expected to be required to settle the obligation. The anticipated cash flows are discounted using a pretax discount rate (or rates) that reflect(s) current market assessments of the time value of money and the risks specific to the liability (for which the cash flow estimates have not been adjusted) if the effect is material.

Provisions shall be reviewed at the end of each reporting period and adjusted to reflect the current best estimate. The carrying amount of a provision increases in each period to reflect the passage of time with said increase recognized as a borrowing cost.

Under U.S. GAAP, a loss contingency is an existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an entity that will ultimately be resolved when one or more future events occur or fail to occur.

An accrual for a loss contingency is required if two criteria are met: (1) if it is probable that a liability has been incurred and (2) the amount of loss can be reasonably estimated.

Implicit in the first condition above is that it is probable that one or more future events will occur confirming the fact of the loss.

The guidance uses the term “probable” to describe a situation in which the outcome is likely to occur. While a numeric standard for probable does not exist, practice generally considers an event that has a 75% or greater likelihood of occurrence to be probable.

A single standard does not exist to determine the measurement of obligations. Instead, entities must refer to guidance established for specific obligations (e.g., environmental or restructuring) to determine the appropriate measurement methodology.

Pronouncements related to provisions do not necessarily have settlement price or even fair value as an objective in the measurement of liabilities, and the guidance often describes an accumulation of the entity’s cost estimates. When no amount within a range is a better estimate than any other amount, the low end of the range is accrued.

For losses that meet the accrual criteria of ASC 450, an entity will generally record them at the amount that will be paid to settle the contingency, without considering the time that may pass before the liability is paid. Discounting these liabilities is acceptable when the aggregate amount of the liability and the timing of cash payments for the liability are fixed or determinable. Entities with these liabilities that are eligible for discounting are not, however, required to discount those liabilities; the decision to discount is an accounting policy choice.

The classification in the statement of operations of the accretion of the liability to its settlement amount is an accounting policy decision that should be consistently applied and disclosed.

When discounting is applied, the discount rate applied to a liability should not change from period to period if the liability is not recorded at fair value.

There are certain instances outside of ASC 450 (e.g., in the accounting for asset retirement obligations) where discounting is required.

Deferred Exploration and Development Costs

Under Indonesian FAS, entity is permitted to develop an accounting policy for recognition of exploration and evaluation expenditures. As such, an entity may defer exploration and evaluation costs incurred in an area of interest associated with a potential mineral deposit and valid mining right and, when either: (a) exploration costs are expected to be recovered through exploitation or sale of proved reserves; or (b) activities have not yet reached a stage permitting reasonable assessments of the existence or otherwise of economically recoverable reserves. The reporting entity also needs to demonstrate that active and significant exploration of the area of interest is continuing to substantiate deferral. Expenditures related to the development of ore body shall not be recognized as exploration and evaluation assets.

Under U.S. GAAP, costs incurred before mineralization are expensed. The standard prohibits capitalization of exploration and evaluation costs until feasibility study are completed and permits are in place. Costs are capitalized when it has been determined that an ore body can be economically developed, which requires the completion of a feasibility study. The time between initial acquisition and full evaluation of property's potential is variable and is determined by several factors, including the location relative to existing infrastructure, the property's stage of development, geological controls and ore prices. If an ore body is determined to be economically mineable, acquisition and development costs are amortized when production begin using the unit-of-production method based on proved and probable reserves.

Amortization of Mining Properties and Property, Plant and Equipment

Under Indonesian FAS, amortization of mining properties (which include exploration and development costs) are calculated based on the units-of-production method. Under certain circumstances, the amortization is calculated based on the estimated useful economic life of the area of interest if it is considered to result in more accurate financial information. Other amortization method can be used as long as it reflects the pattern in which the asset's future economic benefits are expected to be consumed by the entity. The basis for calculating amortization should be applied consistently. If the unit-of-production method is used, the amortization rate each year should be based on the reasonable reserves which could be produced until the end of the exploration period of that area of interest. If the amortization is based on the passage of time, then the estimated economic useful life should not be longer than the exploitation period or the term of mining license. Amortization method are revised whenever there is a change in the pattern in which the asset's future economic benefits are expected to be consumed by the entity. The revisions are accounted for prospectively as changes in estimates.

Under Indonesian FAS, property, plant and equipment is depreciated using a method which reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity. Generally, an entity in mining industry will depreciate its property, plant and equipment to their residual value using the straight-line method over the estimated useful liver, life of mine or the term of the coal cooperation agreement, whichever is shorter.

Under U.S. GAAP, amortization of mining properties, property, plant and equipment is computed using the units-of-production method over the estimated proved and probable reserves or the economic useful life of the equipment if shorter. In certain limited circumstances, the straight-line method may be used if the impact is substantially similar to the units-of-production method. Units-of-production depreciation rates are revised whenever there is an indication of the need for revision. The revisions are accounted for prospectively as changes in estimates.

Stripping costs incurred during the production phase

Under Indonesian FAS, stripping activity conducted during the production phase may provide two benefits that accrue to an entity: (i) coal that is processed into inventory in the current year; and (ii) improved access to the coal body in future periods.

To the extent that the benefit from the stripping activity is realized in the form of inventory produced, an entity should account for the costs of this stripping activity as variable production costs and should be included in the costs of the inventory produced during the period that the stripping costs are incurred.

To the extent the benefit is improved access to the coal body, an entity should recognize these costs as a stripping activity asset provided that all of the following criteria are met:

1. It is probable that the future economic benefit (improved access to the coal body) associated with the stripping activity will flow to that entity;
2. The entity can identify the component of the coal body for which access has been improved; and
3. The costs relating to the stripping activity associated with that component can be measured reliably.

When the costs of the stripping activity asset and the inventory produced are not separately identifiable, an entity allocates the production stripping costs between the inventory produced and the stripping activity asset using an allocation basis that is based on a relevant production measure.

Under U.S. GAAP, stripping costs incurred during the production phase of a mine are variable production costs that should be included in the costs of the inventory produced (that is, extracted) during the period that the stripping costs are incurred.

Revenue Recognition

Under existing Indonesian FAS (SFAS 23 — Revenue), revenue from sale of goods is recognized only when (i) risks and rewards of ownership have been transferred, (ii) the seller retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold, (iii) revenues can be measured reliably, (iv) it is probable that the economic benefits will flow to the seller and (v) the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Revenue from rendering of services is recognized when the outcome of the transaction can be estimated reliably. This is done by reference to the stage of completion of the transaction at the balance sheet date, using requirements similar to those for construction contracts. The outcome of a transaction can be estimated reliably when: (1) the amount of revenue can be measured reliably; (2) it is probable that economic benefits will flow to the entity; (3) the stage of completion can be measured reliably; and (4) the costs incurred and costs to complete can be reliably measured.

However, starting January 1, 2020, the new revenue standard (SFAS 72 — Revenue from Contracts with Customers) will be effective. It contains principles that an entity will apply to determine the measurement of revenue and the timing of when it is recognized. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. Under SFAS 72, revenue is recognized based on the satisfaction of performance obligations. In applying SFAS 72, entities would follow a five-step process: (1) Identify the contract with a customer. (2) Identify the separate performance obligations in the contract. (3) Determine the transaction price. (4) Allocate the transaction price to the separate performance obligations. (5) Recognize revenue when (or as) each performance obligation is satisfied. As a result, SFAS 72 could significantly change how many entities recognize revenue. The standard will also result in a significant increase in the volume of disclosures related to revenue recognition.

SFAS 72 is adopted from IFRS 15 — Revenue from Contracts with Customers. Since IFRS 15 and ASC 606, Revenue from Contracts with Customers are the converged standards from Financial Accounting Standards Board (“FASB”) and International Accounting Standards Board (“IASB”), the new model introduced by the standard eliminates many of the existing differences in accounting for revenue between the two frameworks, with the exception of a few discrete areas, among others, below:

- Any noncash consideration received from a customer needs to be included in the transaction price. Noncash consideration is measured at fair value. ASC 606 was amended to specify that noncash

consideration should be measured at contract inception and addresses how to apply the variable consideration guidance to contracts with noncash consideration. Noncash consideration paid to a customer is recognized as contra-revenue, unless it is payment for a distinct good or service. This is true even if such payments are in the form of share-based payments, which would be valued as noncash consideration following ASC 606. However, IFRS 15 has not been amended to address noncash consideration, and as a result, approaches other than that required by ASC 606 may, where appropriate, be applied under IFRS 15.

- ASC 606 and IFRS 15 have some differences in practical expedients available to ease application of and transition to the revenue standards. Additionally, the two standards define a “completed contract” differently. ASC 606 provides a “use of hindsight” practical expedient intended to simplify the transition for contracts modified multiple times prior to the initial application of the standard. An entity applying the expedient will determine the transaction price of a contract at the date of initial application and perform a single, standalone selling price allocation (with the benefit of hindsight) to all of the satisfied and unsatisfied performance obligations in the contract from inception. IFRS 15 provides a similar “use of hindsight” practical expedient; however, entities can choose to apply the expedient either at the beginning of the earliest period presented or at the date of initial application.
- ASC 606 permits entities using the modified retrospective transition approach to apply the new standard to either all contracts or only contracts that are not yet complete as of the date of initial application. The U.S. GAAP standard defines a completed contract as a contract for which all (or substantially all) of the revenue was recognized in accordance with legacy revenue guidance before the date of initial application. IFRS 15 permits entities to apply the new standard either to all contracts or only contracts that are not yet complete as of the date of initial application under the modified retrospective transition approach. The IFRS standard defines a completed contract as a contract for which the entity has transferred all of the goods or services identified in accordance with legacy revenue guidance. IFRS 15 also permits entities using the full retrospective transition approach to not restate contracts that are completed contracts as of the beginning of the earliest period presented.
- Entities that sell products often deliver them via third-party shipping service providers. Management needs to consider whether the entity is the principal for the shipping service or is an agent arranging for the shipping service to be provided to the customer when control of the goods transfers at shipping point. ASC 606 allows entities to elect to account for shipping and handling activities that occur after the customer has obtained control of a good as a fulfilment cost rather than an additional promised service. IFRS 15 does not provide this election. IFRS reporters (and U.S. GAAP reporters that do not make this election) are required to consider whether shipping and handling services give rise to a separate performance obligation.
- The revenue standards require entities to recognize an impairment loss on contract costs (that is, capitalized costs to acquire or fulfill a contract) when certain conditions are met. Consistent with other U.S. GAAP impairment guidance, ASC 340-40, Other Assets and Deferred Costs — Contracts with Customers, does not permit entities to reverse impairment losses recognized on contract costs. Consistent with other IFRS impairment guidance, IFRS 15 requires impairment losses to be reversed in certain circumstances similar to the existing standard on impairment of assets.

Since SFAS 72 is adopted from IFRS 15, the same principles apply with respect to SFAS 72 and ASC 606. ASC 606 was effective for annual periods beginning after December 15, 2016, for public entities.

Financial Instruments

Under existing Indonesian FAS, accounting for financial instruments are prescribed in various standards such as SFAS 50 — Financial Instruments: Presentation, in SFAS 55 — Financial Instruments: Recognition and Measurement, SFAS 60 — Financial Instruments: Disclosures, Interpretation of Financial Accounting Standards (“IFAS”) 26 — Reassessment of Embedded Derivatives and IFAS 28 — Extinguishing Financial Liabilities —

with Equity Instruments. SFAS 71 — Financial Instruments will replace SFAS 55 beginning on or after January 1, 2020. However, for some entities, SFAS 55 will remain relevant (for example insurers that apply the SFAS 62 — Insurance contracts). On transition to SFAS 71 entities may also continue to apply SFAS 55 hedge accounting. The objective of the new standards is to establish requirements for all aspects of accounting for financial instruments, including distinguishing debt from equity, netting, recognition, derecognition, measurement, hedge accounting and disclosure.

Under existing Indonesian FAS (SFAS 55), there are four classes of financial asset: (1) fair value through profit or loss; (2) held to maturity; (3) loans and receivables; and (4) available for sale. Financial liabilities are classified either as financial liabilities measured at fair or at amortized cost. SFAS 71 replaces the multiple classification and measurement models for financial assets in SFAS 55 (“FVOCI”) with a single model that has three classification categories: (1) amortized cost; (2) fair value through OCI; and (3) fair value through profit and loss. Classification under SFAS 71 is driven by the entity’s business model for managing the financial assets and whether the contractual characteristics of the financial assets represent solely payments of principal and interest. However, at initial recognition an entity may irrevocably designate a financial asset as measured at fair value through profit and loss if doing so eliminates or significantly reduces an accounting mismatch.

Some financial instruments and other contracts combine a derivative and a non-derivative in a single contract. The derivative part of the contract is referred to as an ‘embedded derivative’. Under the existing Indonesian FAS, embedded derivatives that are not ‘closely related’ to the rest of the contract are separated and accounted for as standalone derivatives (that is, measured at fair value, generally with changes in fair value recognized in profit or loss). An embedded derivative is not ‘closely related’ if its economic characteristics and risks are different from those of the rest of the contract.

SFAS 71 removes the requirement to separate embedded derivatives from financial asset hosts. It requires a hybrid contract to be classified in its entirety at either amortized cost or fair value if the contractual cash flows do not represent solely payments of principal and interest. SFAS 71 prohibits reclassifications except in rare circumstances when the entity’s business model changes. There is specific guidance for contractually linked instruments that leverage credit risk, which is often the case with investment tranches in a securitization.

The impairment rules under existing Indonesian FAS is based on “incurred loss” model while the impairment rules of SFAS 71 introduce a new, forward looking, expected credit loss (“ECL”) impairment model which will generally result in earlier recognition of losses compared to SFAS 55.

The hedging rules of SFAS 71 better aligns hedge accounting with management’s risk management strategies. Further, some of the prohibitions and rules in SFAS 55 are removed or changed, making hedge accounting easier or less costly to achieve for many hedges. For instance, SFAS 55’s 80-125% bright line test is replaced with a requirement for there to be an economic relationship between the hedged item and hedging instrument and no imbalance between their weighting that would create ineffectiveness. Risk components can be designated for non-financial hedged items provided the risk component is separately identifiable and reliably measurable and there will be less income statement volatility for entities using options or forwards for hedging. Both of these changes will likely result in more hedges qualifying for hedge accounting than under SFAS 55.

SFAS 71 provides an accounting policy choice: entities can either continue to apply the hedge accounting requirements of SFAS 55 until the macro hedging project is finalized, or they can apply SFAS 71 (with the scope exception only for fair value macro hedges of interest rate risk). This accounting policy choice will apply to all hedge accounting and cannot be made on a hedge-by-hedge basis.

There are differences between IFRS and U.S. GAAP in financial instruments. Below is not the exhausted list but rather certain aspects that may have a significant difference. Since SFAS 71 is adopted from IFRS 9 — Financial Instrument, all the differences between IFRS and U.S. GAAP will apply to the differences between Indonesian FAS and U.S. GAAP

Under IFRS or U.S. GAAP frameworks, the determination of whether a financial asset is considered debt or equity has implications on its classification and subsequent measurement. However, the criteria for making

this determination are different. Therefore, certain investments could be accounted for as a debt investment under one framework and as an equity investment under the other.

Under both IFRS and U.S. GAAP, equity investments are generally required to be measured at fair value with changes in fair value recognized in earnings. Unlike U.S. GAAP, IFRS does not include simplifications such as the “NAV exception” or “measurement alternative,” which exist under U.S. GAAP. However, IFRS provides an option to recognize the changes in the fair value of equity investments in other comprehensive income, with no subsequent reclassification to profit or loss.

Classification of loans and receivables is not driven by legal form under IFRS, whereas legal form drives the classification of debt securities under U.S. GAAP. The potential classification differences drive subsequent measurement differences under IFRS and U.S. GAAP.

Classification of debt securities is not driven by legal form under IFRS, whereas legal form drives the classification of debt securities under U.S. GAAP.

Under IFRS 9, an entity does not need to determine whether embedded derivatives need to be bifurcated from financial assets. The contractual features of the financial asset are assessed as part of the SPPI test, which drives the classification of the instrument as a whole. Under U.S. GAAP, bifurcation of embedded derivatives is required. This can create a significant difference between the models, since under U.S. GAAP only a particular feature may require bifurcation and measurement at fair value through profit or loss, whereas under IFRS 9, the entire instrument may require measurement at fair value through profit or loss.

Under IFRS, for debt instruments measured at FVOCI, the total change in fair value is bifurcated, with the portion associated with foreign exchange gains/losses on the amortized cost basis separately recognized in the income statement. The remaining portion of the total change in fair value (except for impairment losses) is recognized in OCI, net of tax effect.

Under U.S. GAAP, the total change in fair value of available-for-sale debt securities — net of associated tax effects — is recorded in Other Comprehensive Income (“OCI”). Any component of the overall change in fair market value that may be associated with foreign exchange gains and losses on an available-for-sale debt security is treated in a manner consistent with the remaining overall change in the instrument’s fair value.

A financial asset that is within the scope of IFRS 9 is not assessed for embedded derivatives because the SPPI test is applied to the entire hybrid contract to determine the appropriate measurement category. If an entity fails the SPPI test, the entire instrument is measured at FVTPL.

Under U.S. GAAP, when the terms of a financial asset involve returns that vary in timing or amounts, the asset should be evaluated to determine if there are any embedded derivatives that should be accounted for separately and measured at fair value through profit or loss.

The IFRS 9 impairment model is an expected loss model. Current U.S. GAAP (until the effective date of the expected credit loss (“ECL”) model) is an incurred loss model. The impairment models are therefore currently fundamentally different. The models will be more converged when the U.S. GAAP ECL model is effective; however, many significant differences will still exist.

Leases

Under existing Indonesian FAS (SFAS 30 — Leases), a lease is classified as a finance lease if it transfers substantially all risks and rewards incidental to ownership otherwise it will be classified as operating lease (off balance sheet) by a lessee. However, starting on January 1, 2020, the new lease standard (SFAS 73 — Leases) requires the lessee to recognize almost all lease contracts on the balance sheet; the only optional exemptions are for certain short-term leases and leases of low-value assets. For lessees that have entered into contracts classified as operating leases under existing accounting standard, this could have a huge impact on the financial statements.

There are significant differences in SFAS 30 and SFAS 73 under Indonesian FAS, among others, as follows:

- Lease components need to be separated if provide separate benefit to lessees and it is not highly inter-related with other component under SFAS 73 while no specific guidance under SFAS 30 except for lease of land and building.
- Lease contract should be combined if meeting certain criteria under SFAS 73 but no comprehensive guidance under SFAS 30.
- SFAS 73 provides exemption (for lessee) for short-term lease (lease term is less or equal to 12 months provided that no purchase option and low-value assets (although no explicit absolute threshold) while no such exemption in SFAS 30.
- Variable lease payment is part of the lease liability if they depend on index/rate under SFAS 73 while it is not part of the lease liability under SFAS 30.
- Modification of lease contract can be treated as adjustment of existing lease or accounted for as a separate lease depending on type of modification in SFAS 73 but no specific guidance under SFAS 30.
- Sale and leaseback is distinguished based on whether the transfer is sale under SFAS 73 but it is based on classification of leaseback under SFAS 30.

SFAS 73 is adopted from IFRS 16 — Leases. Since IFRS 16 and ASC 842 are the Joint Project of the IASB and the FASB, those standards on leases are nearly identical. However, application of the guidance may require significant judgment, and as a result, the practical application of the principles to similar transaction may differ. The same principles apply with respect to SFAS 73 and ASC 842. ASC 842 was effective for public entities for annual periods beginning after December 15, 2018.

GLOSSARY OF CERTAIN TERMS USED IN THE OFFERING MEMORANDUM

The explanations of certain terms used in this Offering Memorandum are not intended as technical definitions, but have been provided to assist the reader to understand certain terms as used in this Offering Memorandum. We have also included abbreviations and acronyms of certain units of measurement in this Offering Memorandum.

<i>Adaro MetCoal Companies or AMC</i>	a group of companies owned by Adaro Energy which have metallurgical and thermal coal concessions in Central and East Kalimantan
<i>Ash</i>	impurities consisting of iron, alumina and other incombustible matter that are contained in coal. Since ash increases the weight of coal, it adds to the cost of handling and can affect the characteristics of coal
<i>Balangan Coal Companies</i>	a group of companies 75% owned by Adaro Energy which have coal concessions in South Kalimantan, near Adaro Indonesia's operations consisting of PT Semesta Centramas ("SCM"), PT Laskar Semesta Alam ("LSA") and PT Paramitha Cipta Sarana ("PCS")
<i>Barge</i>	a long and large, usually flat-bottomed, boat of between 240 to 400 feet in length that is towed by a tugboat
<i>BPI</i>	PT Bhimasena Power Indonesia
<i>BVGL</i>	Business Viability Guarantee Letter
<i>Coal Corporation Agreement</i>	Adaro Indonesia's 30-year right from the Government to mine coal within its specified concession, which expires in October 2022, unless extended in accordance with its terms
<i>EMR</i>	EMR Capital Ltd
<i>Envirocoal</i>	Export coal from Adaro Energy's Tutupan mine is marketed under the Envirocoal brand. Envirocoal is considered the benchmark sub-bituminous coal brand in the export market. It has a specific energy of around 5,000 kcal/kg gar and is registered as a trademark worldwide
<i>GAR</i>	gross calorific value or "higher heating value" is the calorific value under laboratory conditions
<i>Government</i>	Government of the Republic of Indonesia
<i>IBT</i>	PT Indonesia Bulk Terminal
<i>IDX</i>	Indonesia Stock Exchange
<i>IMPT</i>	PT Indonesia Multi Purpose Terminal
<i>JORC</i>	the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia
<i>2012 JORC Code</i>	the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 edition, prepared by the JORC, which sets out the minimum standards, recommendations and guidelines for public reporting of exploration results, mineral resources and ore reserves in Australasia
<i>Kestrel</i>	Kestrel Coal Group Pty Ltd. which is 34.6% effectively owned by Adaro Energy
<i>Kestrel Acquisition</i>	On August 1, 2018, we together with EMR, completed the acquisition of Rio Tinto's 80% interest in the Kestrel Coal Mine in Australia, which

	we will jointly manage and operate with EMR. Following the acquisition, Kestrel Coal Mine is indirectly owned by Kestrel Coal Group Pty Ltd (80%) and Mitsui Coal Australia (20%)
<i>Kestrel Coal Mine</i>	a metallurgical coal asset located in Australia
<i>MEMR</i>	Ministry of Energy and Mineral Resources of the Republic of Indonesia
<i>MBP</i>	PT Maritim Barito Perkasa
<i>Metallurgical coal</i>	is used in steel production. It is used either to produce coke, which is then fed into the top of the blast furnace along with the iron ore; or for pulverized coal injection (PCI), where the coal is injected directly into the base of the blast furnace
<i>MIP</i>	PT Mustika Indah Permai
<i>MOF</i>	the Ministry of Finance of the Republic of Indonesia
<i>MOHLR</i>	Ministry of Law and Human Rights of the Republic of Indonesia
<i>MSW</i>	PT Makmur Sejahtera Wisesa
<i>NAR</i>	Net calorific value, or lower heating value, is the useful calorific value in a boiler plant
<i>OJK</i>	the Indonesian Financial Services Authority
<i>Operational EBITDA</i>	Earnings Before Income Tax, Depreciation and Amortization (EBITDA) excluding a one-time non-operational transaction and foreign exchange loss/(gain). Adaro Indonesia Operational EBITDA and SIS Operational EBITDA should be interpreted accordingly
<i>Overburden</i>	any material, consolidated or unconsolidated, such as layers of earth and rock, that overlies a coal seam or lies in between a number of coal seams (typically called interburden). In surface mining operations, overburden is removed prior to coal extraction
<i>PBMM</i>	PT Puradika Bongkar Muat Makmur
<i>PDAM</i>	Indonesian regional Government water company
<i>PPA</i>	power purchase agreement
<i>Probable reserves</i>	is the economically mineable part of an indicated, and in some circumstances, a measured resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments indicate at the time of reporting that extraction could reasonably be justified (as defined in the 2012 JORC Code)
<i>Proved reserves</i>	is the economically mineable part of a measured resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments indicate at the time of reporting that extraction could reasonably be justified (as defined in the 2012 JORC Code)
<i>QHSE Steering Committee</i>	a steering committee to improve its quality, health, safety and environment

<i>Reclamation</i>	the process of restoring the environment to close to its original state following mining activities. The process commonly includes “recontouring” or reshaping the land to its approximate original appearance. Reclamation operations are usually underway before the mining of a particular site is completed. Reclamation is regulated by applicable local law
<i>Reserves</i>	coal, about which size, form, distribution, quantity and quality are known to a certain degree of confidence, and which is mineable considering the economic, technical, legal and environmental aspects at the time of measurement
<i>Resources</i>	define coal in the ground in such location, form, quality and quantity that there are reasonable prospects for eventual economic extraction. Under the JORC code, resources are sub-divided, in order of increasing geological confidence into Inferred, Indicated and Measured categories
<i>RPMGlobal Mining Consultants</i>	consultants for the Independent Technical Review of Resources and Reserves (“the RPM Report”)
<i>RUPTL</i>	Rencana Usaha Penyediaan Tenaga Listrik
<i>SDM</i>	PT Sarana Daya Mandiri
<i>SIS</i>	PT Saptaindra Sejati
<i>Strip ratio</i>	is an overburden-to-coal ratio, measured in bank cubic meters to tonnes. A lower ratio generally means a lower cost of extraction
<i>Sub-bituminous</i>	is the next highest coal rank after lignite with a carbon content in the range 73-80% (daf), typical moisture levels of 10-20% and specific energy typically less than around 5,400 kcal/kg GAR. Sub-bituminous coal is used primarily for power generation, with increasing amounts being sold on the seaborne market
<i>Thermal coal</i>	is used in combustion processes to produce steam for power generation, heating, and industrial applications such as cement manufacture
<i>TPI</i>	PT Tanjung Power Indonesia

Units of Measurement and Abbreviations

<i>CAGR</i>	Compound average growth rate
<i>GAR</i>	Gross as received
<i>GDP</i>	Gross domestic product
<i>Mbcm</i>	Million bank cubic meters
<i>MT</i>	Million tonnes
<i>Mtpa</i>	Million tonnes per annum
<i>SSCC</i>	Semi-soft coking coal

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**PT ADARO ENERGY Tbk
AND ITS SUBSIDIARIES**

INTERIM CONSOLIDATED FINANCIAL STATEMENTS

**30 JUNE 2019 AND 31 DECEMBER 2018
AND FOR THE SIX-MONTH PERIODS ENDED
30 JUNE 2019 AND 2018**

**BOARD OF DIRECTORS' STATEMENT REGARDING
THE RESPONSIBILITY FOR THE INTERIM CONSOLIDATED FINANCIAL
STATEMENTS AS AT 30 JUNE 2019 AND 31 DECEMBER 2018 AND FOR
THE SIX-MONTH PERIODS ENDED 30 JUNE 2019 AND 2018
PT ADARO ENERGY Tbk AND ITS SUBSIDIARIES**

In accordance with a resolution of the Board of Directors of PT Adaro Energy Tbk and on behalf of the Board of Directors, we, the undersigned:

1. Name : Garibaldi Thohir
Office Address : Menara Karya Lt. 23,
Jl. H.R. Rasuna Said
Blok X-5 Kav. 1 - 2, Jakarta
Address of Domicile : GD. Peluru Blok E/139
Tebet, Jakarta Selatan
Telephone : +62 21 5211265
Position : President Director
2. Name : Christian Ariano Rachmat
Office Address : Menara Karya Lt. 23,
Jl. H.R. Rasuna Said
Blok X-5 Kav. 1 - 2, Jakarta
Address of Domicile : Jl. Patra Kuningan I LI/10-11
Kuningan Timur, Setiabudi
Jakarta Selatan
Telephone : +62 21 5211265
Position : Vice President Director

declare that:

1. The Board of Directors is responsible for the preparation and presentation of the interim consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries (the "Group");
2. The Group's interim consolidated financial statements have been prepared and presented in accordance with Indonesian Financial Accounting Standards;
3. a. All information has been fully and correctly disclosed in the Group's interim consolidated financial statements;
b. The Group's interim consolidated financial statements do not contain false material information or facts, nor do they omit material information or facts; and
4. The Board of Directors is responsible for the Group's internal control systems.

This statement is made truthfully.

For and on behalf of the Board of Directors.



Garibaldi Thohir
President Director



Christian Ariano Rachmat
Vice President Director

JAKARTA
11 October 2019



**REPORT ON REVIEWS OF INTERIM CONSOLIDATED FINANCIAL INFORMATION
TO THE SHAREHOLDERS OF
PT ADARO ENERGY Tbk**

Introduction

We have reviewed the accompanying interim consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries, which comprise the interim consolidated statement of financial position as at 30 June 2019, and the interim consolidated statements of profit or loss and other comprehensive income, statements of changes in equity and statements of cash flows for the six-month periods ended 30 June 2019 and 2018, and a summary of significant accounting policies and other explanatory notes. Management is responsible for the preparation and fair presentation of these interim consolidated financial statements in accordance with Indonesian Financial Accounting Standards. Our responsibility is to express a conclusion on these interim consolidated financial statements based on our reviews.

Scope of Review

We conducted our reviews in accordance with Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity", established by the Indonesian Institute of Certified Public Accountants. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Standards on Auditing established by the Indonesian Institute of Certified Public Accountants and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our reviews, nothing has come to our attention that causes us to believe that the accompanying interim consolidated financial statements do not present fairly, in all material respects, the financial position of PT Adaro Energy Tbk and its subsidiaries as at 30 June 2019, and their financial performance and cash flows for the six-month periods ended 30 June 2019 and 2018 in accordance with Indonesian Financial Accounting Standards.

Other Matter

Prior to this report, we have issued reports on review of interim consolidated financial information No. N20190822001/DC2/YAN/2019 dated 22 August 2019 and No. N20180816002/DC2/DKO/2018 dated 16 August 2018 on the interim consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries for the six-month periods ended 30 June 2019 and 2018, respectively. This report has been prepared solely for inclusion in the offering document in connection with the proposed offering of debt securities of PT Adaro Indonesia, and is not intended to be, and should not be, used for any other purposes.

JAKARTA
11 October 2019

Yanto S.E., Ak., M.Ak., CPA
License of Public Accountant No. AP.0241

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Nomor Izin Usaha: KEP-241/KM.1/2015.

N20191011012/DC2/YAN/2019

**INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
AS AT 30 JUNE 2019 AND 31 DECEMBER 2018**

(Expressed in thousands of US Dollars, except for par value and share data)

	<u>Notes</u>	<u>30 June 2019</u>	<u>31 December 2018</u>
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	4	895,216	927,896
Restricted time deposits - current portion	5	33	32
Available-for-sale financial assets - current portion	6	59,239	89,147
Trade receivables	7	406,179	370,894
Inventories	9	107,960	112,005
Prepaid taxes - current portion	31a	46,613	72,295
Recoverable taxes	31b	14,324	8,804
Other receivables		2,690	6,036
Advances and prepayments - current portion	8	11,716	12,488
Other current assets		<u>246</u>	<u>697</u>
Total current assets		<u>1,544,216</u>	<u>1,600,294</u>
NON-CURRENT ASSETS			
Restricted time deposits - non-current portion	5	24,383	15,637
Available-for-sale financial assets - non-current portion	6	28,349	14,897
Investments in joint ventures	11	617,127	576,888
Advances and prepayments - non-current portion	8	65,914	56,521
Prepaid taxes - non-current portion	31a	30,618	33,515
Mining properties	12	2,265,122	2,296,723
Fixed assets	10	1,715,476	1,609,701
Goodwill	13	793,610	793,610
Deferred tax assets	31e	34,439	27,336
Other non-current assets		<u>38,119</u>	<u>35,633</u>
Total non-current assets		<u>5,613,157</u>	<u>5,460,461</u>
TOTAL ASSETS		<u>7,157,373</u>	<u>7,060,755</u>

The accompanying notes to the interim consolidated financial statements form an integral part of these interim consolidated financial statements.

**INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
AS AT 30 JUNE 2019 AND 31 DECEMBER 2018**

(Expressed in thousands of US Dollars, except for par value and share data)

	<u>Notes</u>	<u>30 June 2019</u>	<u>31 December 2018</u>
LIABILITIES AND EQUITY			
LIABILITIES			
CURRENT LIABILITIES			
Trade payables	14	328,445	341,766
Dividends payable	26	-	83,773
Accrued expenses	16	63,749	52,207
Short-term employee benefits liabilities		2,375	3,272
Taxes payable	31c	172,271	82,948
Royalties payable	15	52,103	8,516
Current maturity of long-term borrowings:			
- Finance lease payables	19	42,159	37,404
- Bank loans	20	364,291	182,671
Derivative financial instruments - current portion	18	8,440	17,590
Other liabilities		<u>10,247</u>	<u>6,296</u>
Total current liabilities		<u>1,044,080</u>	<u>816,443</u>
NON-CURRENT LIABILITIES			
Loans from a third party	17	13,432	13,432
Long-term borrowings, net of current maturities:			
- Finance lease payables	19	130,928	125,289
- Bank loans	20	794,479	1,072,527
Derivative financial instruments - non-current portion	18	6,796	2,522
Deferred tax liabilities	31e	523,695	539,503
Post-employment benefits liabilities	21	70,836	63,247
Provision for mine rehabilitation, reclamation and closure	22	<u>129,774</u>	<u>125,100</u>
Total non-current liabilities		<u>1,669,940</u>	<u>1,941,620</u>
TOTAL LIABILITIES		<u>2,714,020</u>	<u>2,758,063</u>

The accompanying notes to the interim consolidated financial statements form an integral part of these interim consolidated financial statements.

**INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
AS AT 30 JUNE 2019 AND 31 DECEMBER 2018**

(Expressed in thousands of US Dollars, except for par value and share data)

	<u>Notes</u>	<u>30 June 2019</u>	<u>31 December 2018</u>
LIABILITIES AND EQUITY			
EQUITY			
Equity attributable to owners of the parent entity			
Share capital - authorised 80,000,000,000 shares; issued and fully paid 31,985,962,000 shares at par value of Rp100 per share	23	342,940	342,940
Additional paid-in capital, net	24	1,154,494	1,154,494
Difference in value from transactions with non-controlling interests		626	532
Retained earnings	25	2,333,068	2,161,277
Other comprehensive loss	2h, 2i	<u>(58,013)</u>	<u>(8,844)</u>
Total equity attributable to owners of the parent entity		<u>3,773,115</u>	<u>3,650,399</u>
Non-controlling interests	27	<u>670,238</u>	<u>652,293</u>
TOTAL EQUITY		<u>4,443,353</u>	<u>4,302,692</u>
TOTAL LIABILITIES AND EQUITY		<u>7,157,373</u>	<u>7,060,755</u>

The accompanying notes to the interim consolidated financial statements form an integral part of these interim consolidated financial statements.

**INTERIM CONSOLIDATED STATEMENTS OF PROFIT OR LOSS
AND OTHER COMPREHENSIVE INCOME
FOR THE SIX-MONTH PERIODS ENDED 30 JUNE 2019 AND 2018**

(Expressed in thousands of US Dollars, except for basic and diluted earnings per share)

	<u>Notes</u>	<u>30 June 2019</u>	<u>30 June 2018</u>
Revenue	28	1,775,229	1,610,291
Cost of revenue	29	<u>(1,210,844)</u>	<u>(1,118,289)</u>
Gross profit		564,385	492,002
Operating expenses	30	(114,747)	(89,848)
Other income/(expenses), net		<u>900</u>	<u>(10,710)</u>
Operating income		<u>450,538</u>	<u>391,444</u>
Finance costs		(34,317)	(29,739)
Finance income		12,005	12,511
Share in net profit of joint ventures	11	<u>60,038</u>	<u>11,967</u>
		<u>37,726</u>	<u>(5,261)</u>
Profit before income tax		488,264	386,183
Income tax expense	31d	<u>(167,065)</u>	<u>(162,134)</u>
Profit for the period		<u>321,199</u>	<u>224,049</u>
Other comprehensive (loss)/income for the period:			
Items that will be reclassified to profit or loss:			
Changes in fair value of available-for-sale financial assets	6	12,139	(10,423)
Exchange difference due to financial statements translation		(134)	(2,751)
Share of other comprehensive (loss)/income of joint ventures	11	(63,643)	34,026
Changes in value of cash flow hedges	18	5,364	1,890
Income tax relating to these items	31d	<u>(2,414)</u>	<u>(850)</u>
		<u>(48,688)</u>	<u>21,892</u>
Items that will not be reclassified to profit or loss:			
Remeasurement of post-employment benefits liabilities		-	820
Income tax relating to this item	31d	<u>-</u>	<u>(205)</u>
		<u>-</u>	<u>615</u>
		<u>(48,688)</u>	<u>22,507</u>
Total comprehensive income for the period, net of tax		<u><u>272,511</u></u>	<u><u>246,556</u></u>

The accompanying notes to the interim consolidated financial statements form an integral part of these interim consolidated financial statements.

**INTERIM CONSOLIDATED STATEMENTS OF PROFIT OR LOSS
AND OTHER COMPREHENSIVE INCOME
FOR THE SIX-MONTH PERIODS ENDED 30 JUNE 2019 AND 2018**

(Expressed in thousands of US Dollars, except for basic and diluted earnings per share)

	<u>Notes</u>	<u>30 June 2019</u>	<u>30 June 2018</u>
Profit for the period attributable to:			
Owners of the parent entity		296,856	195,383
Non-controlling interests	27	<u>24,343</u>	<u>28,666</u>
Profit for the period		<u>321,199</u>	<u>224,049</u>
Total comprehensive income for the period attributable to:			
Owners of the parent entity		247,687	218,847
Non-controlling interests	27	<u>24,824</u>	<u>27,709</u>
Total comprehensive income for the period, net of tax		<u>272,511</u>	<u>246,556</u>
Earnings per share attributable to owners of the parent entity	33		
- Basic (full amount)		0.00928	0.00611
- Diluted (full amount)		0.00864	0.00569

The accompanying notes to the interim consolidated financial statements form an integral part of these interim consolidated financial statements.

**INTERIM CONSOLIDATED STATEMENTS OF
CASH FLOWS FOR THE SIX-MONTH PERIODS ENDED
30 JUNE 2019 AND 2018**

(Expressed in thousands of US Dollars)

	30 June 2019	30 June 2018
Cash flows from operating activities		
Receipts from customers	1,740,566	1,582,853
Payments to suppliers	(809,169)	(698,655)
Payments to employees	(119,585)	(112,589)
Receipts of finance income	13,145	8,823
Payments of royalties	(138,246)	(178,551)
Payments of corporate income tax and final income tax	(118,251)	(76,038)
Receipts of income tax refunds	7,045	14,460
Payments of finance costs	(36,447)	(26,790)
Payments of sales tax	(4,196)	(3,628)
Other receipts, net	2,982	3,884
Net cash flows provided from operating activities	537,844	513,769
Cash flows from investing activities		
Purchase of available-for-sale financial assets	(13,605)	(4,345)
Proceeds from sales of available-for-sale financial assets	42,078	141,852
Purchase of fixed assets	(176,692)	(155,168)
Proceeds from disposal of fixed assets	1,411	32,057
Payment for addition of mining properties	(38,955)	(20,978)
Cash outflow from investment in joint venture	(43,844)	-
Net cash outflow from advance for share purchase	-	(202,468)
Net cash flows used in investing activities	(229,607)	(209,050)
Cash flows from financing activities		
Proceeds from bank loans	41,000	16,000
Repayments of bank loans	(141,889)	(141,397)
Payments of dividends to the Company's shareholders	(200,232)	(250,130)
Payments of dividends to non-controlling interests	(14,642)	(50,665)
Payments of finance lease payables	(20,757)	(23,307)
Transfer to restricted time deposits	(8,747)	(7,166)
Acquisition of non-controlling interest	(1,173)	-
Receipt of capital injection from non-controlling interests	424	16,611
Net cash flows used in financing activities	(346,016)	(440,054)
Net decrease in cash and cash equivalents	(37,779)	(135,335)
Cash and cash equivalents at the beginning of the period	927,896	1,206,848
Effect of exchange rate changes on cash and cash equivalents	5,099	(13,552)
Cash and cash equivalents at the end of the period (Note 4)	895,216	1,057,961

Refer to Note 35 for presentation of the Group's cash flow information.

The accompanying notes to the interim consolidated financial statements form an integral part of these interim consolidated financial statements.

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS**

30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL

a. Establishment of the Company and other information

PT Adaro Energy Tbk (the “Company”) was established by Notarial Deed No. 25 dated 28 July 2004 of Sukawaty Sumadi, S.H., Notary in Jakarta. The Deed was published in the State Gazette of the Republic of Indonesia No. 59, dated 25 July 2006, State Gazette Supplement No. 8036 and was approved by the Minister of Justice of the Republic of Indonesia in Decree No. C-21493 HT.01.01.TH.2004, dated 26 August 2004. The Articles of Association of the Company have been amended several times with the most recent change by Notarial Deed No. 36 dated 6 July 2015 of Humberg Lie, S.H., S.E., M.Kn., to conform with the requirements of the Financial Services Authority (Otoritas Jasa Keuangan) Regulation No. 32/POJK.04/2014, dated 8 December 2014, regarding Planning and Execution of the General Meeting of Shareholders of a Public Company and the Financial Services Authority Regulation No. 33/POJK.04/2014, dated 8 December 2014, regarding the Boards of Directors and Commissioners of a Public Company. These amendments to the Articles of Association were accepted by the Minister of Law and Human Rights of the Republic of Indonesia in Notification Receipt No. AHU-AH.01.03-0953799, dated 3 August 2015.

In July 2008, the Company conducted an Initial Public Offering (“IPO”) of 11,139,331,000 shares (34.8% of 31,985,962,000 shares issued and fully paid-up). The shares offered to the public in the IPO were listed on the Indonesia Stock Exchange on 16 July 2008.

In accordance with Article 3 of the Articles of Association, the Company is engaged in trading, services, industry, coal hauling, workshop activities, mining and construction. The Company’s subsidiaries are engaged in coal mining, coal trading, mining contractor services, infrastructure, coal logistics, power generation activities and water treatment.

The Company commenced its commercial operations in July 2005. The Company’s head office is in Jakarta and is located at the Menara Karya Building, 23rd floor, Jl. H.R. Rasuna Said Block X-5, Kav. 1-2, South Jakarta.

Based on Notarial Deed No. 9 dated 11 June 2019 of Humberg Lie, S.H., S.E., M.Kn., the Company’s Boards of Commissioners and Directors as at 30 June 2019 were as follows:

President Commissioner	: Edwin Soeryadjaya
Vice President Commissioner	: Theodore Permadi Rachmat
Commissioner	: Arini Saraswaty Subianto
Independent Commissioners	: Dr. Ir. Raden Pardede
	Mohammad Effendi
President Director	: Garibaldi Thohir
Vice President Director	: Christian Ariano Rachmat
Directors	: Julius Aslan
	Chia Ah Hoo
	M. Syah Indra Aman

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(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)
a. Establishment of the Company and other information (continued)

The Company's Boards of Commissioners and Directors as at 31 December 2018 were as follows:

President Commissioner : Edwin Soeryadjaya
 Vice President Commissioner : Theodore Permadi Rachmat
 Commissioner : Arini Saraswaty Subianto
 Independent Commissioner : Dr. Ir. Raden Pardede

President Director : Garibaldi Thohir
 Vice President Director : Christian Ariano Rachmat
 Directors : Julius Aslan
 Chia Ah Hoo
 M. Syah Indra Aman

The composition of the Company's Audit Committee as at 30 June 2019 was as follows:

Chairman : Mohammad Effendi
 Members : Ignatius Robby Sani
 Lindawati Gani

The composition of the Company's Audit Committee as at 31 December 2018 was as follows:

Chairman : Dr. Ir. Raden Pardede
 Members : Ignatius Robby Sani
 Lindawati Gani

As at 30 June 2019, the Company and its subsidiaries had 10,518 permanent employees (31 December 2018: 10,259 permanent employees) (unreviewed).

b. Group structure

In these interim consolidated financial statements, the Company and its subsidiaries are collectively referred to as the "Group".

As at 30 June 2019 and 31 December 2018, the structure of the Group was as follows:

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership		Total assets (before elimination)	
				30 June 2019	31 December 2018	30 June 2019	31 December 2018
<u>Directly owned subsidiaries</u>							
PT Alam Tri Abadi ("ATA") ^{a)}	Trading and services	Indonesia	2007	100%	100%	6,828,070	6,839,938
PT Saptaindra Sejati ("SIS")	Mining services	Indonesia	2002	100%	100%	761,951	758,211
<u>Indirectly owned subsidiaries</u>							
PT Adaro Indonesia ("AI")	Mining	Indonesia	1992	88%	88%	2,372,474	2,252,033
PT Dianlia Setyamukti ("Dianlia")	Investment	Indonesia	-	100%	100%	42,135	38,372
PT Jasapower Indonesia ("JPI")	Mining services	Indonesia	2016	100%	100%	145,192	142,604
PT Biscayne Investments ("Biscayne")	Investment	Indonesia	-	100%	100%	115	115

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30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)
b. Group structure (continued)

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership		Total assets (before elimination)	
				30 June 2019	31 December 2018	30 June 2019	31 December 2018
Indirectly owned subsidiaries (continued)							
PT Indonesia Bulk Terminal ("IBT")	Terminal handling services	Indonesia	1997	100%	100%	85,457	89,998
PT Adaro Persada Mandiri ("APM") ^{a)}	Services	Indonesia	2006	100%	100%	72,120	65,466
Arindo Holdings (Mauritius) Ltd ("Arindo Holdings") ^{a)}	Investment	Mauritius	-	90%	90%	1,217,782	1,090,050
Vindoor Investments (Mauritius) Ltd ("Vindoor") ^{a)}	Investment	Mauritius	-	90%	90%	981,554	888,125
Coaltrade Services International Pte Ltd ("Coaltrade")	Coal trading	Singapore	2001	90%	90%	723,204	701,138
PT Viscaya Investments ("Viscaya")	Investment	Indonesia	-	100%	100%	260,191	247,304
PT Sarana Daya Mandiri ("SDM")	Services	Indonesia	2009	51%	51%	38,599	40,109
Orchard Maritime Logistics Pte Ltd ("OML")	Coal handling and barging	Singapore	2006	100%	100%	5,728	5,723
PT Adaro Logistics ("AL") ^{a)}	Investment	Indonesia	-	100%	100%	512,635	537,328
PT Maritim Barito Perkasa ("MBP")	Coal handling and barging	Indonesia	2004	100%	100%	363,179	384,476
PT Harapan Bahtera Internusa ("HBI")	Domestic sea transportation	Indonesia	2004	100%	100%	24,492	23,328
PT Adaro Power ("AP") ^{a)}	Investment	Indonesia	-	100%	100%	244,859	250,151
PT Makmur Sejahtera Wisesa ("MSW")	Trading and power plant services	Indonesia	2013	100%	100%	138,042	147,866
PT Puradika Bongkar Muat Makmur ("PBMM")	Services	Indonesia	2013	100%	100%	11,001	13,784
PT Rehabilitasi Lingkungan Indonesia ("RLI") ^{a)}	Services	Indonesia	2016	100%	100%	5,402	6,487
PT Indonesia Multi Purpose ("IMPT")	Terminal handling services	Indonesia	2013	85%	85%	1,584	1,040
PT Mustika Indah Permai ("MIP")	Mining	Indonesia	2019	75%	75%	68,836	68,754
PT Bukit Enim Energi ("BEE")	Mining	Indonesia	-	61%	61%	989	957
PT Adaro Mining Technologies ("AMT") ^{a)}	Services	Indonesia	-	100%	100%	34,562	36,879
PT Adaro Jasabara Indonesia ("AJI")	Services	Indonesia	2007	100%	100%	2,747	3,301
PT Bhakti Energi Persada ("BEP") ^{a)}	Investment	Indonesia	-	10%	10%	77,793	76,618
PT Persada Multi Bara ("PMB")	Mining	Indonesia	-	10%	10%	17,340	16,244
PT Khazana Bumi Kaliman ("KBK")	Mining	Indonesia	-	9%	9%	8,263	7,655
PT Bumi Kaliman Sejahtera ("BKS")	Mining	Indonesia	-	9%	9%	11,380	10,542
PT Telen Eco Coal ("TEC")	Mining	Indonesia	-	10%	10%	14,031	13,281
PT Bumi Murau Coal ("BMC")	Mining	Indonesia	-	10%	10%	5,716	5,237

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS**

30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)

b. Group structure (continued)

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership		Total assets (before elimination)	
				30 June 2019	31 December 2018	30 June 2019	31 December 2018
Indirectly owned subsidiaries (continued)							
PT Birawa Pandu Selaras ("BPS")	Mining	Indonesia	-	9%	9%	775	684
PT Tri Panuntun Persada ("TPP")	Mining	Indonesia	-	9%	9%	634	556
PT Wahau Tutung Investindo ("WTI")	Trading and construction services	Indonesia	-	10%	10%	9,779	9,521
PT Bhakti Kutai Transportindo ("BKT")	Transportation	Indonesia	-	6%	6%	130	138
PT Bukit Bara Alampersada ("BBA") ^{a)}	Investment	Indonesia	-	10%	10%	7,749	7,635
PT Bhakti Kumala Sakti ("BKI")	Services	Indonesia	-	10%	10%	2	2
PT Wahau Sumber Alam ("WSA")	Services	Indonesia	-	10%	10%	70	67
PT Etam Sukses Sejahtera ("ESS")	Services	Indonesia	-	10%	10%	268	278
PT Murau Selo Sejahtera ("MSS")	Services	Indonesia	-	10%	10%	1	1
PT Sumber Guna Alam Lestari ("SGAL")	Services	Indonesia	-	10%	10%	1	1
PT Adaro Tirta Mandiri ("ATM") ^{a)}	Trading	Indonesia	-	100%	100%	19,598	17,038
PT Agri Multi Lestari ("AML")	Farming	Indonesia	2016	100%	100%	2,966	2,167
PT Paramitha Cipta Sarana ("PCS")	Mining	Indonesia	-	75%	75%	43,530	41,365
PT Semesta Centramas ("SCM")	Mining	Indonesia	2014	75%	75%	65,657	70,975
PT Laskar Semesta Alam ("LSA")	Mining	Indonesia	2016	75%	75%	95,966	76,664
PT Trimitra Tirta Sarana ("TTS") ^{a)}	Investment	Indonesia	-	100%	80%	14,279	13,614
PT Drupadi Tirta Intan ("DTI")	Water treatment	Indonesia	2016	100%	80%	5,965	5,671
PT Drupadi Tirta Gresik ("DTG")	Water treatment	Indonesia	2016	100%	80%	7,466	6,933
PT Lahai Coal ("LC")	Mining	Indonesia	2016	100%	100%	195,794	195,325
PT Pari Coal ("PC")	Mining	Indonesia	-	100%	100%	3,308	3,003
PT Juloi Coal ("JC")	Mining	Indonesia	-	100%	100%	16,194	8,831
PT Sumber Barito Coal ("SBC")	Mining	Indonesia	-	100%	100%	2,339	1,292
PT Kalteng Coal ("KC")	Mining	Indonesia	-	100%	100%	6,198	5,891
PT Maruwai Coal ("MC")	Mining	Indonesia	-	100%	100%	486,427	404,033
PT Ratah Coal ("RC")	Mining	Indonesia	-	100%	100%	394	193
PT Balangan Anugerah Mining Semesta ("BAS")	Mining	Indonesia	-	75%	75%	17	21
Adaro Capital Limited ("ACL")	Investment	Malaysia	2017	90%	90%	636,418	526,907
PT Alam Sukses Lestari ("ASL") ^{b)}	Services	Indonesia	2018	100%	100%	375	470
PT Barito Galangan Nusantara ("BGN") ^{c)}	Manufacture, repair and maintenance of sea transportation	Indonesia	2018	100%	100%	8,604	6,921

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30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)
b. Group structure (continued)

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership		Total assets (before elimination)	
				30 June 2019	31 December 2018	30 June 2019	31 December 2018
Indirectly owned subsidiaries (continued)							
PT Hutan Amanah Lestari ("HAL") ^{b)}	Services	Indonesia	2018	85%	85%	102	100
PT Adaro Tirta Mentaya ("ATME") ^{b)}	Water treatment	Indonesia	-	90%	90%	2,462	1,594
PT Adaro Wamco Prima ("AWP") ^{d)}	Water and mud Treatment	Indonesia	-	60%	-	1,063	-
Adaro Australia Pty Ltd ^{e)}	Investment	Australia	-	-	-	-	-

a) and its subsidiaries

b) acquired in 2018

c) established in 2018

d) established in six-month period ended 30 June 2019

e) established in August 2019

c. AI Coal Cooperation Agreement

AI's activities are governed by the provisions of a Coal Cooperation Agreement (the "CCA") which was entered into by AI and PT Tambang Batubara Bukit Asam (Persero) Tbk ("PTBA"), formerly Perusahaan Negara Tambang Batubara, on 16 November 1982. Based on Presidential Decree No. 75/1996 dated 25 September 1996 and the amendment to CCA No. J2/Ji.DU/52/82 between PTBA and AI on 27 June 1997, all of the rights and obligations of PTBA under the CCA were transferred to the Government of the Republic of Indonesia (the "Government") represented by the Minister of Mines and Energy, effective from 1 July 1997.

Under the terms of the CCA, AI acts as a contractor to the Government, and is responsible for coal mining operations in an area located in South Kalimantan. AI commenced its 30-year operating period on 1 October 1992 with coal produced from the Paringin area of interest. AI is entitled to 86.5% of the coal produced, with the remaining 13.5% representing the Government's share of production. However, the Government's share of production is, in practice, settled in cash when the sales of coal are actually completed. Therefore, the amount of royalty payable that is settled in cash to the Government depends on the actual volume of sales in that particular period.

On 18 September 2014, AI signed a Memorandum of Understanding ("MoU") with the Government to amend its CCA. This MoU was signed within the framework of the renegotiation process for adjustment of the CCA, which only related to six strategic issues: (i) the CCA area, (ii) the continuation of Mining Operations, (iii) State Revenue, (iv) Obligations of Domestic Processing, (v) Obligations to Divest, and (vi) Use of Local Labour, Goods and Domestic Services.

On 17 January 2018, AI signed an amendment to the CCA ("Amendment to the CCA") with the Government. This amendment was signed for the purpose of adjusting the provisions of the CCA to comply with the provisions of Law No. 4 of 2009 on Mineral and Coal Mining pursuant to the requirement as set forth in Article 169 of the said law. AI believes that there is no adverse material impact on AI's operational activities, legal status, financial condition or business continuity.

AI's sales reflect 100% of the revenue generated from coal sales. The Government royalty expense is presented in profit or loss as part of cost of revenue (Note 29).

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1. GENERAL (continued)**d. IBT Cooperation Agreement**

On 25 August 1990, IBT entered into a Basic Agreement with PT Pelabuhan Indonesia III (Persero) (formerly Perum Pelabuhan III) ("Pelindo III") for the construction, development and operation of a Public Coal Port in Pulau Laut, South Kalimantan. On 10 November 1994, IBT and Pelindo III amended the Basic Agreement to a Cooperation Agreement ("Agreement"). Under the terms of the Agreement, IBT commenced its 30-year operating period on 21 August 1997 and has an obligation to pay royalties to Pelindo III based on a certain percentage of the revenue from management services for the coal bulk terminal.

On 18 August 2009, IBT and Pelindo III amended the Agreement in relation to the expansion of IBT's business to include the management of the liquid bulk terminal. Under the amendment, IBT has an obligation to pay Pelindo III a share of the handling fee at a certain amount per tonne for unloading and loading liquid bulk terminal activities.

On 9 February 2011, IBT and Pelindo III further agreed to amend the royalty fee for the management of the coal bulk terminal services from a certain percentage of the revenue to a fixed rate per tonne.

On 1 October 2014, IBT and Pelindo III agreed to amend the shared amount of handling fees per kilolitre for unloading and loading liquid bulk terminal activities.

e. Barito Channel Cooperation Agreement

On 28 August 2007, PT Ambang Barito Nusapersada ("Ambapers") appointed SDM as a partnership winner to execute the dredging of the Barito Channel, which includes river-mouth dredging, maintenance dredging and financing the channel dredging project. On 25 March 2008, SDM entered into a Cooperation Agreement with Ambapers to execute this appointment. The term of the agreement is 15 years commencing on the date on which the channel utilisation service fee is charged by Ambapers on 1 January 2009. Afterwards, SDM will be given the first right to consider extension or refusal to extend for the next five years, with a guarantee from Ambapers that the terms and conditions offered to third parties will not be easier to satisfy or more beneficial than those offered to SDM.

Ambapers charges a channel fee for every ship that passes through the Barito Channel in accordance with the regulations set by the local government. Revenue from the management of channel fees is distributed to the local government, Ambapers and SDM in the determined proportions on the fifth day of the following month.

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(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)
f. Adaro MetCoal ("AMC") Coal Cooperation Agreements

Several subsidiaries of the Group within the AMC development have entered into CCAs with the Government for the exploration and exploitation of coal resources with details as follows:

No.	Company	Agreement date	Amendment date	Location
1	PT Pari Coal	19 April 1999	14 November 2017	East Kalimantan and Central Kalimantan
2	PT Ratah Coal	6 September 2000	14 November 2017	East Kalimantan and Central Kalimantan
3	PT Lahai Coal	6 September 2000	14 November 2017	East Kalimantan and Central Kalimantan
4	PT Juloi Coal	6 September 2000	14 November 2017	Central Kalimantan
5	PT Kalteng Coal	19 February 1998	14 November 2017	Central Kalimantan
6	PT Maruwai Coal	19 February 1998	14 November 2017	East Kalimantan and Central Kalimantan
7	PT Sumber Barito Coal	19 April 1999	14 November 2017	East Kalimantan and Central Kalimantan

Based on the CCAs, the operating period of the relevant areas of interest is for a 30-year period from the first coal mining operation, or a longer period agreed by the Government based on the AMC entities' written request.

g. Mining Business Permits

As at 30 June 2019 and 31 December 2018, other than the CCAs entered into by AI and the AMC entities, the Group had the following mining business permits:

No	Decree			Permit		Period (Years)	Location
	Number	Date	By	Type	Holder		
1	No. 503/188/KEP/PERTAMBEN/2010	29 April 2010	Regent of Lahat	IUPOP	MIP	20	Lahat Regency, South Sumatera Province
2	No. 256/KPTS/TAMBEN/2011	9 March 2011	Regent of Muara Enim	IUPOP	BEE	20	Muara Enim Regency, South Sumatera Province
3	No. 540.1/K.288/HK/V/2011	10 May 2011	Regent of East Kutai	IUPOP	BMC	20	East Kutai Regency, East Kalimantan Province
4	No. 540.1/K.289/HK/V/2011	10 May 2011	Regent of East Kutai	IUPOP	PMB	20	East Kutai Regency, East Kalimantan Province
5	No. 540.1/K.490/HK/V/2010	21 May 2010	Regent of East Kutai	IUPOP	TEC	28	East Kutai Regency, East Kalimantan Province
6	No. 540.1/K.665/HK/VIII/2012	6 August 2012	Regent of East Kutai	IUPOP	KBK	20	East Kutai Regency, East Kalimantan Province
7	No. 540.1/K.666/HK/VIII/2012	6 August 2012	Regent of East Kutai	IUPOP	BKS	20	East Kutai Regency, East Kalimantan Province
8	No. 540.1/K.545/HK/VI/2013	11 June 2013	Regent of East Kutai	IUPOP	TPP	20	East Kutai Regency, East Kalimantan Province
9	No. 540.1/K.546/HK/VI/2013	11 June 2013	Regent of East Kutai	IUPOP	BPS	20	East Kutai Regency, East Kalimantan Province
10	No. 541.23/K.133/HK/II/2014*	21 January 2014	Regent of East Kutai	IUPOP	BEP	5	East Kutai Regency, East Kalimantan Province
11	No. 0466 K/30/MEM/2015**	12 February 2015	Ministry of Energy and Mineral Resources ("MoEMR")	IUPOP	PCS	20 until 2029	Balangan Regency, South Kalimantan Province
12	No. 0427 K/30/MEM/2015**	10 February 2015	MoEMR	IUPOP	SCM	20 until 2029	Balangan Regency, South Kalimantan Province
13	No. 0636 K/30/MEM/2015***	24 February 2015	MoEMR	IUPOP	LSA	20 until 2034	Balangan Regency, South Kalimantan Province

IUPOP: Operation and Production Mining Business Licence

IUPE: Exploration Mining Business Licence

*IUPOP which expired in 2019 is on the extension process

**IUPOP issued based on Decree of Regent of Balangan No. 188.45/83/Kum Year 2009 dated 8 April 2009 (PCS) and Decree of Regent of Balangan No. 188.45/131/Kum Year 2009 dated 21 July 2009 (SCM), both adjusted in accordance with the decree of the Minister of Energy and Mineral Resources ("Minister of EMR") due to their change in status to Foreign Capital Investment Companies

***IUPE which ended in 2014 has been upgraded to IUPOP issued by Minister of EMR due to change in status to a Foreign Capital Investment Company

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2. SIGNIFICANT ACCOUNTING POLICIES

Presented below are the significant accounting policies adopted in preparing the interim consolidated financial statements of the Group. These policies have been consistently applied to all of the periods presented, unless otherwise stated.

a. Basis of preparation of the interim consolidated financial statements

The Group's interim consolidated financial statements have been prepared in conformity with Indonesian Financial Accounting Standards and the Regulations and the Guidelines on Financial Statement Presentation and Disclosures issued by the Indonesian Financial Services Authority.

The interim consolidated financial statements have been prepared under the historical cost convention, except for available-for-sale financial assets and derivative instruments which are recognised at fair value, and using the accrual basis except for the interim consolidated statements of cash flows.

The preparation of interim consolidated financial statements in conformity with Indonesian Financial Accounting Standards requires the use of certain critical accounting estimates and assumptions. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the interim consolidated financial statements are disclosed in Note 3.

b. Changes to Statements of Financial Accounting Standards ("SFAS") and Interpretations of Financial Accounting Standards ("IFAS")

The adoption of the following new interpretations, amendment and annual improvements to accounting standards which are effective from 1 January 2019 did not result in substantial changes to the Group's accounting policies and had no material effect on the amounts reported in the interim consolidated financial statements for the current period:

- IFAS No. 33, "Foreign Currency Transactions and Advance Consideration"
- IFAS No. 34, "Uncertainty over Income Tax Treatments"
- Amendment to SFAS No. 24, "Employee Benefits - Plan Amendment, Curtailment or Settlement"
- Annual improvement to SFAS No. 22, "Business Combinations"
- Annual improvement to SFAS No. 26, "Borrowing Costs"
- Annual improvement to SFAS No. 46, "Income Taxes"
- Annual improvement to SFAS No. 66, "Joint Arrangements"

**NOTES TO THE INTERIM CONSOLIDATED
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30 JUNE 2019 AND 31 DECEMBER 2018

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

b. Changes to Statements of Financial Accounting Standards ("SFAS") and Interpretations of Financial Accounting Standards ("IFAS") (continued)

New standards, amendments, annual improvements and interpretations issued but not yet effective for the financial year beginning 1 January 2019 are as follows:

- SFAS No. 71, "Financial Instruments"
- SFAS No. 72, "Revenue from Contracts with Customers"
- SFAS No. 73, "Leases"
- SFAS No. 112, "Accounting for Endowments"
- Amendment to SFAS No. 1, "Presentation of Financial Statements Concerning the Title of Financial Statements"
- Amendment to SFAS No. 15, "Investments in Associates and Joint Ventures"
- Amendment to SFAS No. 22, "Business Combinations"
- Amendment to SFAS No. 25, "Accounting Policies, Accounting Estimates and Errors"
- Amendment to SFAS No. 62, "Insurance Contracts"
- Amendment to SFAS No. 71, "Financial Instruments - Prepayment Features with Negative Compensation"
- Annual improvement to SFAS No. 1, "Presentation of Financial Statements"
- IFAS No. 35, "Presentation of Non-profit Oriented Entity Financial Statements"

The above new standards, amendments, annual improvements and interpretations are effective beginning 1 January 2020, except for SFAS No. 112 and Amendment to SFAS No. 22 which are effective from 1 January 2021.

Early adoption of the above standards is permitted except for IFAS No. 35, Amendment to SFAS No. 1 and SFAS No. 1, while early adoption of SFAS No. 73 is permitted only upon the early adoption of SFAS No. 72.

As at the issuance date of these interim consolidated financial statements, the Group is evaluating the potential impact of these new standards and amendments, annual improvements and interpretations on the Group's interim consolidated financial statements.

c. Principles of consolidation

i. Subsidiaries

i.1. Consolidation

Subsidiaries are all entities (including structured entities), over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Subsidiaries are consolidated from the date on which control is transferred to the Group and are de-consolidated from the date on which that control ceases.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**c. Principles of consolidation (continued)****i. Subsidiaries (continued)****i.1. Consolidation (continued)**

Intragroup balances, transactions, income and expenses are eliminated. Profits and losses resulting from intragroup transactions that are recognised in assets are also eliminated. The accounting policies of subsidiaries have been amended where necessary to ensure consistency with the policies adopted by the Group.

i.2. Acquisition

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group.

The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired, liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values as at the acquisition date.

The Group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets. Non-controlling interests are reported as equity in the interim consolidated statements of financial position, separate from the owner of the parent entity.

Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the Group will remeasure its previously held equity interest in the acquiree at its fair value at its acquisition date and recognise the resulting gain or loss, if any, in profit or loss. Any contingent consideration to be transferred by the Group is recognised at its fair value as at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or a liability are recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

The excess of the consideration transferred, the amount of any non-controlling interests in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the subsidiary acquired and the measurement of all amounts has been reviewed, in the case of a bargain purchase, the difference is recognised directly in profit or loss.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

c. Principles of consolidation (continued)

ii. Changes in ownership interest in subsidiaries without loss of control

Transactions with non-controlling interests that do not result in a loss of control are accounted for as equity transactions. The difference between the fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

iii. Disposal of subsidiaries

When the Group loses control of a subsidiary, the Group derecognises the assets (including any goodwill) and liabilities of the subsidiary at their carrying amounts as at the date on which control is lost. Amounts previously recognised in other comprehensive income are also reclassified to profit or loss, or transferred directly to retained earnings if required under other SFAS.

Any investment retained in the former subsidiary is recognised at its fair value. The difference between the carrying amount of the investment retained at the date when the control is lost and its fair value is recognised in profit or loss.

iv. Associates and joint ventures

Associates are entities over which the Group has significant influence, but not control, generally accompanied by a shareholding giving rise to voting rights of 20% or greater but not exceeding 50%. Investment in associates are accounted for in the interim consolidated financial statements using the equity method less impairment losses, if any.

A joint venture is a joint arrangement in which the parties that share joint control have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method less impairment losses, if any.

- Acquisitions

Investment in an associate or a joint venture is initially recognised at cost. The cost of an acquisition is measured at the fair value of the assets transferred, equity instruments issued or liabilities incurred or assumed as at the date of exchange, plus costs directly attributable to the acquisition.

Goodwill on acquisition of an associate or a joint venture represents the excess of the cost of acquisition of the associate or joint venture over the Group's share of the fair value of the identifiable net assets of the associate or joint venture and is included in the carrying amount of the investment.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

c. Principles of consolidation (continued)

iv. Associates and joint ventures (continued)

- Equity method of accounting

In applying the equity method of accounting, the Group's share of its associate's or joint venture's post-acquisition profit or loss is recognised in profit or loss and its share of post-acquisition other comprehensive income is recognised in other comprehensive income.

These post-acquisition movements and distributions received from an associate or a joint venture are adjusted against the carrying amounts of the investment.

When the Group's share of the losses of an associate or a joint venture equals or exceeds its interest in the associate or joint venture, including any other unsecured non-current receivables, the Group does not recognise further losses, unless it has obligations to make or has made payments on behalf of the associate or joint venture.

Unrealised gains on transactions between the Group and its associate or joint venture are eliminated to the extent of the Group's interest in the associate or joint venture. Unrealised losses are also eliminated unless the transaction provides evidence of impairment of the asset being transferred. The accounting policies of the associate or joint venture have been changed where necessary to ensure consistency with the accounting policies adopted by the Group.

Dividend receivables from an associate or a joint venture are recognised as reductions in the carrying amounts of the investment.

The Group determines at each reporting date whether there is any objective evidence that the investment in an associate or joint venture is impaired. If any such evidence exists, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or the joint venture and its carrying value and recognises the amount in profit or loss.

- Disposals

An investment in an associate or a joint venture is derecognised when the Group loses significant influence and any retained equity interest in the entity is remeasured at its fair value. The difference between the carrying amount of the retained interest at the date when significant influence is lost and its fair value is recognised in profit or loss.

Gains and losses arising from partial disposal or dilution of an investment in an associate and a joint venture in which significant influence is retained are recognised in profit or loss, and only a proportionate share of the amount previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)
d. Foreign currency translation
i. Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the relevant entity operates (the "functional currency"). The interim consolidated financial statements are presented in United States Dollars ("US\$" or "US Dollars"), which is the Company's functional currency and the Group's presentation currency.

ii. Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing as at the date of the transactions. As at the reporting date, monetary assets and liabilities denominated in foreign currency are adjusted to reflect the prevailing exchange rates at such date. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

As at the interim consolidated statement of financial position dates, the exchange rates used, based on the middle rates published by Bank Indonesia, were as follows (full US Dollar amount):

	30 June 2019	31 December 2018
Rupiah 10,000 ("Rp")	0.71	0.69
Singapore Dollars ("S\$")	0.74	0.73
Australian Dollars ("A\$")	0.70	0.71
Euro ("€")	1.14	1.14
Yen 100 ("¥")	0.93	0.91

iii. Group companies

The results of the operations and financial position of all of the Group's subsidiaries (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the Company's presentation currency are translated into the Company's presentation currency as follows:

- (a) The assets and liabilities presented in the interim consolidated statement of financial position are translated at the closing rate at the date of the interim consolidated statement of financial position;
- (b) The income and expenses for each profit or loss are translated at the average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case the income and expenses are translated at the rates in force on the dates of the transactions); and
- (c) All of the resulting exchange differences are recognised in other comprehensive income.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**e. Cash and cash equivalents**

Cash and cash equivalents consist of cash on hand, cash in banks and time deposits with maturity periods of three months or less at the time of placement that are not used as collateral or are not restricted.

The interim consolidated statements of cash flows have been prepared using the direct method by classifying the cash flows on the basis of operating, investing and financing activities.

f. Trade receivables

Trade receivables are amounts due from customers for coal and electricity sold or services performed in the ordinary course of business. Non-trade receivables are amounts arising from transactions outside of the ordinary course of business. If the collection of the receivables is expected within one year or less, they are classified as current assets. If not, they are presented as non-current assets.

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, if the impact of discounting is significant, less provision for impairment.

The amount of the impairment loss is recognised in profit or loss within "impairment charges". When a trade and non-trade receivable for which an impairment allowance had been recognised becomes uncollectible in a subsequent period, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against "impairment charges" in profit or loss.

Non-trade receivables from related parties are initially presented as non-current assets unless there are specific reasons for them to be presented as current assets in the interim consolidated statement of financial position.

g. Inventories

Coal inventories are stated at the lower of cost or net realisable value. Cost is determined based on the weighted average method which includes mining costs, direct labour costs, other direct costs and an appropriate portion of fixed and variable overheads related to mining operations. It excludes borrowing costs. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Spare parts, fuel, lubricants, tools and supplies are valued at cost less a provision for obsolete and slow moving inventory. Cost is determined based on the weighted average method. A provision for obsolete and slow moving inventory is determined on the basis of estimated future usage or sale of individual inventory items. Supplies of maintenance materials are charged to production costs in the period in which they are used.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**h. Financial assets****i. Classification, recognition and measurement**

The Group classifies its financial assets into the following categories: (i) financial assets at fair value through profit or loss; (ii) held-to-maturity investments; (iii) loans and receivables; and (iv) available-for-sale financial assets. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of financial assets upon initial recognition.

As at 30 June 2019 and 31 December 2018, the Group has financial assets classified as: (i) loans and receivables; and (ii) available-for-sale financial assets.

(i). Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for those with maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The Group's loans and receivables comprise cash and cash equivalents, restricted time deposits, trade receivables, other receivables and other current and non-current assets.

Loans and receivables are initially recognised at fair value including directly attributable transaction costs and are subsequently carried at amortised cost using the effective interest method.

(ii). Available-for-sale financial assets

Available-for-sale financial assets are non-derivative instruments that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless the investment matures or management expects to realise within 12 months after the reporting period.

Regular purchases and sales of financial assets are recognised as at the settlement date - the date on which an asset is delivered to or by an entity. Available-for-sale financial assets are initially recognised at fair value plus the transaction costs and subsequently carried at fair value.

Changes in the fair value of monetary and non-monetary securities classified as available-for-sale are recognised in other comprehensive income.

Interest on available-for-sale financial assets calculated using the effective interest method is recognised in profit or loss as part of "finance income".

Refer to Note 2i for details of the Group's accounting policy on derivative financial instruments.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

h. Financial assets (continued)

ii. Derecognition

Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all of the risks and rewards of ownership.

When financial assets classified as available-for-sale are sold, the accumulated fair value adjustments recognised in equity are included in profit or loss as "other income" or "other expenses".

iii. Offsetting financial instruments

Financial assets and liabilities are offset and their net amounts are reported in the interim consolidated statement of financial position when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

iv. Impairment of financial assets

At the end of each reporting period, the Group assesses whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or group of financial assets is impaired and impairment losses are recognised only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or a group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtor or a group of debtors are experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation or observable data indicating a measurable decrease in the estimated future cash flow, such as changes in arrears or economic conditions that correlate with defaults.

- Assets carried at amortised cost

For the loans and receivables category, the amount of loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in profit or loss. If a loan has a floating interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

h. Financial assets (continued)

iv. Impairment of financial assets (continued)

- Assets carried at amortised cost (continued)

If, during a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the reversal of the previously recognised impairment loss is recognised in profit or loss.

- Assets classified as available-for-sale

For assets classified as available-for-sale, if any evidence of impairment exists, the cumulative loss - measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss - is removed from equity and recognised in profit or loss.

If, in a subsequent period, the fair value of debt instruments classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in profit or loss, the impairment loss is reversed through profit or loss.

Impairment losses on equity instruments recognised in the interim consolidated financial statements are not reversed through profit or loss in a subsequent period.

i. Derivative financial instruments and hedging activities

Derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at their fair values. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument and, if so, on the nature of the item being hedged. The Group designates certain derivatives as either (a) hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge); or (b) hedges of a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge).

At the inception of the transaction, the Group documents the relationship between hedging instruments and hedging items, as well as its risk management objectives and the strategy for undertaking hedging transactions. The Group also documents its assessment, both at the hedge inception and on an ongoing basis, of whether the derivatives used in hedging transactions are highly effective in offsetting changes in the fair value of or the cash flow from hedged items.

The full value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months from the reporting date.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**i. Derivative financial instruments and hedging activities (continued)****ii. Fair value hedge**

Changes in the fair values of derivatives that are designated and qualify as fair value hedges are recognised in profit or loss, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The gain or loss relating to the effective portion of such a fair value hedge is recognised in profit or loss in the same line as the changes in fair value of the hedged item to which it relates. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

iii. Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

Amounts accumulated in other comprehensive income within equity are reclassified to profit or loss in the period when the hedged item affects profit or loss. The gain or loss relating to the effective portion of the cash flow hedge is recognised in profit or loss in the same line as the hedged item to which it relates. However, when the forecast transaction that is being hedged results in the recognition of a non-financial asset (for example, inventory or fixed assets), the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset. The deferred amounts are ultimately recognised in the cost of revenue in the case of inventory or in depreciation expense in the case of fixed assets.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to profit or loss.

Changes in the fair value of any derivative instruments that are not designated as, or do not qualify for, hedge accounting are recognised immediately in profit or loss.

As at 30 June 2019 and 31 December 2018, the Group only has hedging instruments designated as cash flow hedges.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)
j. Fixed assets

Land rights are recognised at cost and not depreciated.

Initial legal costs incurred to obtain land rights are recognised as part of the acquisition cost of the land and these costs are not depreciated. Costs related to the renewal of land rights are recognised as intangible assets and amortised over the contractual life of the land rights.

Fixed assets are initially recognised at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment losses. Fixed assets, except for the fixed assets of AI and the AMC entities, are depreciated using the straight-line method to their residual values over their estimated useful lives as follows:

	Years
Buildings	10 - 20
Infrastructure	5 - 30
Power plants	25
Machinery, operational equipment and vehicles	4 - 30
Vessels	5 - 25
Office equipment	4 - 8
Roads and bridges	10 - 20

The fixed assets of AI and the AMC entities are depreciated using the straight-line method over the lesser of the estimated useful lives of the assets, the life of the mine, or the term of the CCA, as follows:

	Years
Buildings	4 - 20
Infrastructure	5 - 20
Machinery, operational equipment and vehicles	2 - 10
Office equipment	10
Crushing and handling facilities	2 - 30
Roads and bridges	2 - 30

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amounts of the replaced parts are derecognised. All other repairs and maintenance are charged to profit or loss during the financial year in which they are incurred.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**j. Fixed assets (continued)**

The useful lives, residual values and depreciation methods of fixed assets are reviewed and adjusted if appropriate, at the end of each financial year. The effects of any revisions are recognised in profit or loss, when the changes arise.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 2I).

For assets which are no longer utilised or sold or surrendered to the Government, the carrying amounts are eliminated from the interim consolidated financial statements and the resulting gains or losses on disposals of fixed assets are recognised in profit or loss.

The accumulated costs of the construction of buildings and plant production facilities and the installation of machinery are capitalised as construction in progress. These costs are reclassified to the fixed asset accounts when the construction or installation is complete. Depreciation is charged from the date on which the assets are ready for use in the manner intended by management.

k. Goodwill

Goodwill arises from the acquisition of subsidiaries and represents the excess of the consideration transferred over the interest in the net fair value of the net identifiable assets, liabilities and contingent liabilities of the acquiree and the fair value of the non-controlling interest in the acquiree.

For the purposes of impairment testing, goodwill acquired in a business combination is allocated to each Cash-Generating Unit ("CGU"), or group of CGUs, that is expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which goodwill is monitored for internal management purposes. Goodwill is monitored at operating segment level.

l. Impairment of non-financial assets

Assets that have an indefinite useful life, for example, goodwill or intangible assets not ready to use, are not subject to amortisation but tested annually for impairment, or more frequently if events or changes in circumstances indicate that the carrying amount may not be recoverable. Assets that have a definite useful life, are subject to amortisation or depreciation, and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised at the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there is separately identifiable cash flows. Non-financial assets other than goodwill that suffer impairment are reviewed for possible reversal of the impairment at each reporting date.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

l. Impairment of non-financial assets (continued)

Reversal of impairment losses for assets other than goodwill is recognised if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment testing was carried out. The reversal of impairment losses will be recognised immediately in profit or loss. The reversal should not result in the carrying amount of an asset exceeding what the depreciated cost would have been had the impairment not been recognised at the date on which the impairment was reversed. Impairment losses relating to goodwill will not be reversed.

m. Exploration and evaluation assets

Exploration and evaluation activity involves searching for mineral resources after the Group has obtained legal rights to explore in a specific area, determining the technical feasibility and assessing the commercial viability of an identified resource.

Exploration and evaluation expenditure includes costs that are directly attributable to:

- acquisition of rights to explore;
- topographical, geological, geochemical and geophysical studies;
- exploratory drilling;
- trenching and sampling; and
- activities involved in evaluating the technical feasibility and commercial viability of extracting of mineral resources.

Exploration and evaluation expenditure related to an area of interest is written off as incurred, unless it is capitalised and carried forward, on an area of interest basis, provided that one of the following conditions is met:

- (i) the tenure rights of an area are current and it is considered probable that the costs will be recouped through the successful development and exploitation of the area of interest or, alternatively, through its sale; or
- (ii) exploration activities in the area of interest have not yet reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves and active and significant operations in or in relation to the area of interest are ongoing.

Capitalised costs include costs directly related to exploration and evaluation activities in the relevant area of interest, and exclude physical assets which are recorded in fixed assets. General and administrative costs are allocated to exploration or evaluation assets only to the extent that those costs can be related directly to operational activities in the relevant area of interest.

Capitalised exploration and evaluation expenditure is written off where the above conditions are no longer satisfied.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**m. Exploration and evaluation assets (continued)**

Identifiable exploration and evaluation assets acquired in a business combination are recognised initially as assets at fair value upon acquisition, and subsequently at cost less impairment charges. Exploration and evaluation expenditure incurred subsequent to the acquisition of an exploration asset in a business combination is accounted for in accordance with the policy outlined above.

As the exploration and evaluation assets are not available for use, they are not depreciated.

Exploration and evaluation assets are assessed for impairment if facts and circumstances indicate that impairment may exist. Exploration and evaluation assets are also tested for impairment once commercial reserves are found, before the assets are transferred to “mining properties - mines under development”.

Expenditure incurred before the entity has obtained the legal right to explore a specific area is expensed as incurred.

n. Mining properties

Development expenditure incurred by or on behalf of the Group is accumulated separately for each area of interest in which economically recoverable resources have been identified. Such expenditure includes costs directly attributable to the construction of mines and related infrastructure and excludes physical assets and land rights (i.e. right to build, right to cultivate and right to use), which are recorded as fixed assets.

Once a development decision has been taken, the carrying amount of the exploration and evaluation assets in respect of the area of interest is transferred to “mines under development” within mining properties and aggregated with the subsequent development expenditure.

“Mines under development” are reclassified as “mines in production” within mining properties at the end of the commissioning phase, when the mine is capable of operating in the manner intended by management.

No amortisation is recognised for “mines under development” until they are reclassified as “mines in production”.

When further development expenditure is incurred on a mining property after the commencement of production, the expenditure is carried forward as part of “mines in production” when it is probable that additional future economic benefits associated with the expenditure will flow to the Group. Otherwise such expenditure is classified as a cost of production.

“Mines in production” (including reclassified exploration, evaluation and any development expenditure, and payments to acquire mineral rights and leases) are amortised using the units-of-production method, with separate calculations being made for each area of interest. “Mines in production” will be depleted using the units-of-production method on the basis of proven and probable reserves.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**n. Mining properties (continued)**

Identifiable mining properties acquired in a business combination are initially recognised as assets at their fair value. Development expenses incurred subsequent to the acquisition of the mining properties are accounted for in accordance with the policy outlined above.

“Mines under development” and “mines in production” are tested for impairment in accordance with the policy described in Note 2I.

o. Stripping costs

Stripping costs are the costs of removing overburden from a mine. Stripping costs incurred in the development of a mine before production commences are capitalised as part of the cost of developing the mine, and are subsequently depleted using the units-of-production method on the basis of proven and probable reserves.

Stripping activity conducted during the production phase may provide two benefits that accrue to the Group: (i) coal that is processed into inventory in the current year; and (ii) improved access to the coal body in future periods.

To the extent that the benefit from the stripping activity is realised in the form of inventory produced, the Group accounts for the costs of this stripping activity in accordance with the principles of SFAS No. 14, “Inventories”. To the extent the benefit is improved access to the coal body, the Group recognises these costs as a stripping activity asset, if, and only if, all of the following criteria are met:

1. It is probable that the future economic benefit (improved access to the coal body) associated with the stripping activity will flow to the Group;
2. The Group can identify the component of the coal body for which access has been improved; and
3. The costs relating to the stripping activity associated with that component can be measured reliably.

A stripping activity asset is initially measured at cost, which represents the accumulation of costs directly incurred to perform stripping activity that improves access to the identified component of the coal body, plus an allocation of directly attributable overhead costs. If incidental operations are occurring at the same time as the production stripping activity, but are not necessary for the production stripping activity to continue as planned, the costs associated with these incidental operations are not included in the cost of the stripping activity asset.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**o. Stripping costs (continued)**

When the costs of the stripping activity asset and the inventory produced are not separately identifiable, the Group allocates the production stripping costs between the inventory produced and the stripping activity asset using an allocation basis that is based on a relevant production measure. This production measure is calculated for the identified component of the coal body, and is used as a benchmark to identify the extent to which the additional activity of creating a future benefit has taken place. The Group uses the expected volume of waste extracted compared with the actual volume, for a given volume of coal production.

Subsequently, the stripping activity asset is carried at cost less amortisation and impairment losses, if any. The stripping activity asset is amortised using the units-of-production method over the expected useful life of the identified component of the coal body that becomes more accessible as a result of the stripping activity unless another method is more appropriate.

Changes to the expected useful life of the identified component of the coal body are considered changes in estimates and are accounted for on a prospective basis.

A stripping activity asset is accounted for as an addition to, or enhancement of, an existing asset, and therefore is presented as part of "mining properties" in the interim consolidated statement of financial position.

Any stripping activity asset is included in the cost base of assets when determining a CGU for impairment assessment purposes.

As at the date of these interim consolidated financial statements, the Group did not have stripping costs during the production phase which qualify for deferral in accordance with the Group's accounting policies.

p. Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year of the reporting date. If not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

q. Leases

The determination of whether an arrangement is, or contains, a lease is made based on the substance of the arrangement and an assessment of whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets, and the arrangement conveys a right to use the asset.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**q. Leases (continued)**

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the term of the lease.

Leases of fixed assets where the Group as lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the lease's commencement at the lower of the fair value of the leased asset or the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included in "finance lease payables".

Each lease payment is allocated between the payables and finance charges. The interest element of the finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the payables for each period.

Fixed assets acquired under finance leases are depreciated over the shorter of the useful life of the asset and the lease term, unless there is reasonable certainty that the Group will obtain ownership of the asset by the end of the lease term, in which case the leased asset is depreciated over its useful life.

r. Provisions**i. Provision for decommissioning, mine reclamation and mine closure**

Restoration, rehabilitation and environmental expenditure to be incurred related to the remediation of disturbed areas during the production phase are charged to cost of revenue when the obligation arising from the disturbance occurs as extraction progresses.

These obligations are recognised as liabilities when a legal or constructive obligation has arisen from activities which have already been performed. This obligation is initially and subsequently measured at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate, which reflects current market assessments of the time value of money and the risks specific to the obligation. Changes in the measurement of a liability which arises during production are also charged to the cost of revenue, while the increase in the provision due to the passage of time is recognised as a finance cost.

Provision for decommissioning of mining assets and related post-mining activities, as well as the abandonment and decommissioning of other long-lived assets, is made for the legal obligations associated with the retirement of mining related assets and other long lived assets including the decommissioning of buildings, equipment, crushing and handling facilities, infrastructure and other facilities that resulted from the acquisition, construction or development of such assets.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

r. Provisions (continued)

i. Provision for decommissioning, mine reclamation and mine closure (continued)

These obligations are recognised as liabilities when a legal or constructive obligation with respect to the retirement of an asset is incurred, with initial and subsequent measurement of the obligation at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation.

An asset retirement cost equivalent to these liabilities is capitalised as part of the related asset's carrying value, and is subsequently depreciated or depleted over the asset's useful life. The increase in these obligations due to the passage of time is recognised within finance cost.

The changes in the measurement of decommissioning obligations that result from changes in the estimated timing or amount of the outflow of resources embodying economic benefits (e.g. cash flow) required to settle the obligations, or a change in the discount rate, will be added to or deducted from the cost of the related asset in the current period/year. The amount deducted from the cost of the asset should not exceed its carrying amount. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognised immediately in profit or loss. If the adjustment results in an addition to the cost of an asset, the Group will consider whether this is an indication that the new carrying amount of the asset may not be fully recoverable. If there is any such indication, the Group will test the asset for impairment by estimating its recoverable amount and will account for any impairment losses incurred.

ii. Other provisions

Provisions for restructuring costs, legal claims, or environmental issues that may not involve the retirement of an asset, reclamation and closure of mining areas and others are recognised when:

- the Group has a present legal or constructive obligation as a result of past events;
- it is probable that an outflow of resources will be required to settle the obligation; and
- the amount can be reliably estimated.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. Although the likelihood of an outflow in respect of any one item may be small, it may be probable that some outflow of resources will be needed to settle the class of obligations as a whole. If that is the case, a provision is recognised.

The provision is measured at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as finance cost.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**s. Borrowings**

Borrowings are recognised initially at their fair value, net of any transaction costs incurred. Borrowings are subsequently carried at amortised cost, with any difference between the proceeds (net of transaction costs) and the redemption value recognised in profit or loss over the period of the borrowing, using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facilities will be drawn down. In this case, the fee is deferred until the drawdown occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a prepayment for financing costs and amortised over the period of the facility to which it relates. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer the settlement of the liability for at least 12 months from the reporting date.

t. Borrowing costs

Borrowing costs either directly or indirectly attributable to the acquisition, construction or production of a qualifying asset, are capitalised as part of the cost of that asset until such time as the asset is substantially ready for its intended use or sale. For borrowings directly attributable to a qualifying asset, the amount to be capitalised is determined as the actual borrowing costs incurred during the period/year, less any income earned on the temporary investment of such borrowings. For borrowings that are not directly attributable to a qualifying asset, the amount to be capitalised is determined by applying a capitalisation rate to the amount spent on the qualifying asset. An entity shall cease capitalising borrowing costs when substantially all of the activities necessary to prepare the qualifying assets are complete.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

u. Employee benefits**i. Post-employment benefits**

Pension schemes are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan as derived from its principal terms and conditions. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior years. A defined benefit plan is a pension plan that is not a defined contribution plan. Typically, defined benefit plans define an amount of pension benefit that an employee will receive upon retirement, usually dependent on one or more factors such as age, years of service and compensation.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**u. Employee benefits (continued)****i. Post-employment benefits (continued)**

The Group is required to provide a minimum amount of pension benefit in accordance with Labour Law No. 13/2003 (the "Labour Law") or the Group's Collective Labour Agreement (the "CLA"), whichever is higher. Since the Labour Law or the CLA sets the formula for determining the minimum amount of benefits, in substance pension plans under the Labour Law or the CLA represent defined benefit plans.

The liability recognised in the interim consolidated statement of financial position in respect of defined benefit pension plans is equivalent to the present value of the defined benefit obligation at the end of the reporting year less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the Projected Unit Credit method.

The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using the interest rates of high quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms of maturity approximating the terms of the related pension obligations. When there is no deep market for such bonds, the market rates of government bonds are used.

Past service costs are recognised immediately in profit or loss. Gains or losses on the curtailment or settlement of a defined benefit plan are recognised when the curtailment or settlement occurs.

Remeasurements arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in the interim statement of other comprehensive income in the period/year in which they arise. The accumulated remeasurements balance is reported in retained earnings.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they become due. Prepaid contributions are recognised as an asset to the extent that a cash refund or reduction in the future payments is available.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**u. Employee benefits (continued)****ii. Termination benefits**

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or when an employee accepts voluntary redundancy in exchange for certain benefits. The Group recognises termination benefits at the earlier of the following dates: (i) when the Group can no longer withdraw the offer of those benefits; and (ii) when the Group recognises costs for a restructuring that is within the scope of SFAS No. 57, "Provisions, Contingent Liabilities and Contingent Assets" and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the reporting date are discounted to their present value.

v. Share capital

Ordinary shares are classified as equity, and incremental costs directly attributable to the issuance of new shares are shown in equity as a deduction, net of tax, from the proceeds.

w. Earnings per share

Basic earnings per share are calculated by dividing the profit for the year attributable to the equity holders of the Company by the weighted-average number of ordinary shares outstanding during the period.

Diluted earnings per share are calculated by dividing the profit for the year attributable to owners of the parent of the Company adjusted for finance costs and foreign exchange gains or losses on convertible bonds and their related tax effects, by the weighted-average number of issued and fully paid-up shares during the year, assuming that all options have been exercised and all convertible bonds have been converted.

x. Dividend distributions

Dividend distributions to the Company's shareholders are recognised as liabilities in the consolidated financial statements in the period when the dividends are declared.

y. Business combinations of entities under common control

Business combinations of entities under common control are accounted for using the pooling-of-interests method.

The difference between the consideration received and the carrying value of each restructuring transaction among entities under common control is recorded as part of additional paid-in capital in the equity section of the interim consolidated statement of financial position.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

z. Revenue and expense recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and services in the ordinary course of the Group's activities. Revenue is shown net of Value-Added Tax ("VAT"), rebates and discounts and after eliminating intra-group sales.

The Group recognises revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the entity and criteria have been met for each of the Group's activities as described below. The Group bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

i. Sales of coal

Revenue from coal sales is recognised when all of the following conditions are fulfilled:

- the Group has transferred to the buyer the significant risks and rewards of ownership of the coal;
- the Group retains neither continuing managerial involvement nor effective control over the coal sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group; and
- the costs incurred or to be incurred with respect to the sales transaction can be measured reliably.

The satisfaction of these conditions depends on the terms of trade with individual customers. Generally the risks and rewards are considered to be transferred to the customer when the title and insurable risk of loss are transferred.

The Group's coal sales may be subject to adjustment based on the inspection of shipments by the customer. In these cases, sales are recognised based on the Group's best estimate of the grade and/or quantity at the time of shipment, and any subsequent adjustments are recorded against revenue. Historically, the differences between estimated and actual grade and/or quantity are not significant.

ii. Rendering of mining and logistics services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised with reference to the stage of completion of the transaction at the interim consolidated statement of financial position date. The outcome of a transaction can be estimated reliably when all of the following conditions are met:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group;
- the stage of completion of the transaction at the end of the reporting year can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

z. Revenue and expense recognition (continued)

ii. Rendering of mining and logistics services (continued)

When the outcome of a transaction involving the rendering of services cannot be estimated reliably, revenue is recognised only to the extent of the recognised expenses that are recoverable.

iii. Sales of electricity

Revenue generated from sales of electricity is recognised when the electrical output is delivered to the customers.

iv. Finance income

Finance income is recognised using the effective interest method. When a loan or receivable is impaired, the Group reduces the carrying amount to its recoverable amount, being the estimated future cash flows discounted at the original effective interest rate of the instrument, and continues to unwind the discount as finance income. Finance income on impaired loans and receivables is recognised using the original effective interest rate.

v. Rental income

Rental income from operating leases (net of any incentives given to the lessee) is recognised on a straight-line basis over the lease term.

Expenses are recognised as incurred on an accrual basis.

aa. Current and deferred income tax

Tax expense comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax expense is recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted as at the reporting date in the countries where the Company and its subsidiaries operate and generate taxable income. Specifically for AI, the tax rate used is 45%, and for the AMC entities are 25%, the tax rate enacted as at the reporting date, as stipulated in each CCA. Management periodically evaluates the positions taken in Annual Tax Returns with respect to situations in which the applicable tax regulations are subject to interpretation. It establishes a provision where appropriate on the basis of the amounts expected to be paid to the tax authorities.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**aa. Current and deferred income tax (continued)**

For income which is subject to final tax, tax expenses are recognised proportionally with the accounting revenue recognised and presented as part of the operating expenses in the current period, as such tax does not satisfy the criteria of income tax.

Deferred income tax is recognised, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the interim consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined, except for AI and the AMC entities, using tax rates that have been enacted or substantially enacted at the end of the reporting period/year and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled. The tax rate used by AI is 45% and the AMC entities is 25%, respectively, in accordance with each CCA.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised.

Deferred income tax is provided on temporary differences arising on investment in subsidiaries and associates, except for deferred income tax liabilities where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not be reversed in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities.

In addition to income tax, the Group also recognises other types of payments to Government that are calculated based on production or revenue (i.e. royalty fees). Exploitation fees and royalty fees are accounted for as income taxes when they have the characteristics of an income tax. This is considered to be the case when the tax is imposed by the Government and the amount payable is based on taxable income rather than on physical quantities produced or a percentage of revenue. For such arrangements, current and deferred income tax is provided for on the same basis as described above for other forms of taxation. The obligations of the Group arising from exploitation fees or royalty arrangements under the CCAs or mining business licences do not satisfy these criteria, and therefore are recognised as current provisions and included in cost of revenue.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**ab. Segment reporting**

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments and making strategic decisions, has been identified as the Board of Directors.

3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of interim consolidated financial statements in conformity with Indonesian Financial Accounting Standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the reporting date and the reported amounts of revenue and expenses during the reporting period. Estimates, assumptions and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group has identified the following matters under which significant judgements, estimates and assumptions are made and where actual results may differ from these estimates under different assumptions and conditions and may materially affect the consolidated financial results or financial position of the Group reported in future periods.

- Income taxes and other taxes

The calculation of income tax expense for each company within the Group requires judgements and assumptions in determining the capital allowances and deductibility of certain expenses during the estimation process. In particular, the calculation of income tax expense for entities within the Group operating under a CCA involves the interpretation of applicable tax laws and regulations including the CCA.

The revenue of the entities within the Group is sometimes also subject to both final and non-final income tax. Determining the amount of revenue subject to final and non-final tax as well as expenses relating to revenue from the non-final income tax regime requires judgements and estimates.

All judgements and estimates made by management as discussed above may be challenged by the Directorate General of Taxation ("DGT"). As a result, the ultimate tax determination becomes uncertain. The resolution of tax positions taken by the Group can take several years to complete and in some cases it is difficult to predict the ultimate outcome. Where the final outcome of these matters is different from the amounts initially recorded, such differences will have an impact on the income tax and deferred income tax provision in the period/year in which this determination is made.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Income taxes and other taxes (continued)

Deferred tax assets, including those arising from tax losses carried forward and temporary differences, are recognised only where it is considered more likely than not that they will be recovered, which depends on the generation of sufficient future taxable profits. Similar to “impairment of non-financial assets” discussed below, assumptions about the generation of future taxable profits are heavily affected by management’s estimates and assumptions regarding the expected production levels, sales volumes, commodity prices, etc, which are subject to risk and uncertainty, and hence there is a possibility that changes in circumstances will alter the projected future taxable profits.

- Provision for mine rehabilitation, reclamation and closure

As discussed in Note 38 to these interim consolidated financial statements, Government Regulation No. 78/2010 (“GR No. 78”) deals with reclamation and post-mining activities for both Mining Business Licence (“IUP”)-Exploration and IUP-Production Operation holders and Ministerial Regulation No. 7/2014 deals with reclamation and post-mining activities in the mineral and coal mining business. The transitional provisions in GR No. 78 make it clear that CCA holders are also required to comply with this regulation. Therefore, AI, the AMC entities, PCS, SCM and LSA have calculated provisions for reclamation and mine closure based on GR No. 78.

As discussed in Note 2r to these interim consolidated financial statements, restoration, rehabilitation and environmental expenditure to be incurred related to the remediation of disturbed areas during the production phase are charged to cost of revenue when the obligation arising from the disturbance occurs as extraction progresses. The reclamation of disturbed areas and decommissioning of mining assets and other long-lived assets will be undertaken several years in the future and precise requirements are constantly changing to satisfy political, environmental, safety and public expectations. As such, the timing and amounts of future cash flows required to settle the obligations at each of the statement of financial position dates are subject to significant uncertainty. Changes in the expected future costs could have a material impact on the Group’s interim consolidated financial statements.

- Reserve estimates

Coal reserves are estimates of the amounts of coal that can be economically and legally extracted from the Group’s properties. The Group determines and reports its coal reserves under the principles incorporated in the Australasian Joint Ore Reserves Committee for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (the “JORC”) and the Code of Indonesian Mineral Reserve Committee (*Komite Cadangan Mineral Indonesia*) (the “KCMI”), which is based on JORC. Both are in accordance with the Committee for Mineral Reserves International Reporting Standards (the “CRIRSCO”) for the reporting of coal resources and reserve estimates. In order to estimate coal reserves, assumptions are required about a range of geological, technical and economic factors, including quantities, production techniques, stripping ratios, production costs, transport costs, commodity demand, commodity prices, future capital expenditure, mine closure obligations and exchange rates.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Reserve estimates (continued)

Estimating the quantity and/or calorific value of coal reserves requires the size, shape and depth of coal seams or fields to be determined by analysing geological data such as drilling samples. This process may require complex and difficult geological judgements to interpret the data.

Because the economic assumptions used to estimate reserves change from year to year and because additional geological data is generated during the course of operations, estimates of reserves may change from year to year. Changes in reported reserves may affect the Group's interim consolidated financial results and financial position in a number of ways, including the following:

- Asset carrying values may be affected due to changes in the estimated future cash flows.
- Depreciation, depletion and amortisation charged to profit or loss may change where such charges are determined based on the unit-of-production method or where the economic useful lives of assets change.
- Provision for mine closure may change where changes in estimated reserves affect expectations about the timing or cost of these activities.
- The carrying value of deferred tax assets/liabilities may change due to changes in estimates of the likelihood of the recoverability of the tax benefits.

- Impairment of non-financial assets and fixed assets

The recoverable amount of a cash-generating asset or group of assets is measured at the higher of its fair value less costs of disposal or value in use. The determination of fair value less costs of disposal or value in use requires management to make estimates and assumptions regarding expected production levels, sales volumes, commodity prices (considering current and historical prices, price trends and related factors), reserves (see 'Reserve estimates'), operating costs, closure and rehabilitation costs, discount rate and future capital expenditure. These estimates and assumptions are subject to risk and uncertainty, and hence there is a possibility that changes in circumstances will alter these projections, which may have an impact on the recoverable amount of the assets. In such circumstances, some or all of the carrying values of the assets may be further impaired or the impairment charges may be reduced with the impact being recorded in profit or loss.

- Pension obligation

The present value of the pension obligation depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost/(income) for pensions include the discount rate, future remuneration changes, employee attrition rates, life expectancy and the expected remaining service periods of employees. Any changes in these assumptions will have an impact on the carrying amount of the pension obligation.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Pension obligation (continued)

The Group determines the appropriate discount rate at the end of each period/year. This is the interest rate used to determine the present value of estimated future cash outflows expected to be required to settle the related pension obligation. In determining the appropriate discount rate, the Group considers the interest rates of high quality corporate bonds (or government bonds, if there is no deep market for high quality corporate bonds) that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the terms of the related pension obligation.

Other key assumptions for pension obligation benefits are based in part on current market conditions.

- Fair value estimation

When the fair values of financial assets and financial liabilities recorded in the interim consolidated statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including Discounted Cash Flow ("DCF") models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgement is required in establishing fair values. Judgements include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments. Refer to Note 42(2) for further disclosures.

- Interests in joint arrangements

Judgement is required to determine when the Group has joint control, which requires an assessment of the relevant activities and when the decisions in relation to those activities require unanimous consent. The Group has determined that the relevant activities for its joint arrangements are those relating to the financial, operating and capital decisions of the arrangement.

Judgement is also required to classify a joint arrangement as either a joint operation or a joint venture. Classifying the arrangement requires the Group to assess its rights and obligations arising from the arrangement. Specifically, it considers:

- The structure of the joint arrangement - whether it is structured through a separate vehicle.
- When the arrangement is structured through a separate vehicle, the Group also considers the rights and obligations arising from:
 - a. The legal form of the separate vehicle;
 - b. The terms of the contractual arrangement; and
 - c. Other relevant facts and circumstances.

This assessment often requires significant judgement. A different conclusion on joint control and also whether the arrangement is a joint operation or a joint venture, may materially impact the interim consolidated financial statements.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Interests in joint arrangements (continued)

The Group has joint arrangements which are structured through joint ventures, being PT Bhimasena Power Indonesia ("BPI"), PT Tanjung Power Indonesia ("TPI"), Kestrel Coal Group Pty Ltd ("Kestrel") and PT Dumai Tirta Persada ("DTP"). These structures and the terms of the contractual arrangements indicate that the Group has rights to the net assets of the arrangement. The Group also assessed the other facts and circumstances relating to these arrangements and concluded that the arrangements are joint ventures. Refer to Note 11 for further information.

- Estimating useful lives of fixed assets

The Group estimates the useful lives of its fixed assets based on expected asset utilisation based on business plans and strategies that also consider expected market behaviour. The estimation of the useful lives of fixed assets is based on the Group's assessment of industry practice, internal technical evaluation and experience with similar assets. The estimated useful lives are reviewed at least each financial period-end and are updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limitations on the use of the assets. It is possible, however, that future results of operations could be materially affected by changes in the estimates brought about by changes in the factors mentioned above.

Effective from 1 January 2018, SIS changed the estimated useful lives and residual value of several items of machinery and operational equipment. Refer to Note 10 for further information.

4. CASH AND CASH EQUIVALENTS

	30 June 2019	31 December 2018
Cash on hand	<u>78</u>	<u>66</u>
Cash in banks - Rupiah		
PT Bank OCBC NISP Tbk	46,242	42,167
PT Bank DBS Indonesia	41,335	23,804
Others (each below US\$25,000)	<u>20,665</u>	<u>12,103</u>
Total Rupiah accounts	<u>108,242</u>	<u>78,074</u>
Cash in banks - US Dollars		
DBS Bank Ltd	136,733	53,400
PT Bank OCBC NISP Tbk	132,581	132,462
PT Bank DBS Indonesia	121,231	63,284
PT Bank BTPN Tbk ^{*)}	58,635	10,726
PT Bank UOB Indonesia	56,230	24,326
PT Bank HSBC Indonesia ("HSBC")	27,566	10,990
PT CIMB Niaga Tbk	23,152	33,027
Others (each below US\$25,000)	<u>50,657</u>	<u>77,318</u>
Total US Dollar accounts	<u>606,785</u>	<u>405,533</u>

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4. CASH AND CASH EQUIVALENTS (continued)

	30 June 2019	31 December 2018
Cash in banks - Other currencies		
Others (each below US\$25,000)	319	403
Total cash in banks	715,346	484,010
Time deposits - Rupiah		
PT Bank OCBC NISP Tbk	40,801	60,472
PT Bank BTPN Tbk ^{*)}	5,696	73,140
Others (each below US\$25,000)	13,320	9,667
Total Rupiah time deposits	59,817	143,279
Time deposits - US Dollars		
PT Bank OCBC NISP Tbk	64,407	153,448
PT Bank Rakyat Indonesia (Persero) Tbk ("BRI")	20,000	30,000
PT Bank Danamon Indonesia Tbk	20,000	20,000
PT Bank UOB Indonesia	13,042	26,568
Sumitomo Mitsui Banking Corporation	500	58,500
Others (each below US\$20,000)	2,026	12,025
Total US Dollar time deposits	119,975	300,541
Total time deposits	179,792	443,820
Total	895,216	927,896

^{*)} PT Bank BTPN Tbk is a merger bank between PT Bank Tabungan Pensiunan Nasional Tbk and PT Bank Sumitomo Mitsui Indonesia.

There are no cash and cash equivalents held with related parties.

The contractual interest rates on time deposits during the period/year were as follows:

	30 June 2019	31 December 2018
Rupiah	4.25% - 8.00%	3.50% - 8.50%
US Dollars	1.60% - 3.00%	0.29% - 3.30%

5. RESTRICTED TIME DEPOSITS

	30 June 2019	31 December 2018
Time deposits - Rupiah		
BRI	906	656
PT Bank Mandiri (Persero) Tbk ("Bank Mandiri")	83	82
Total Rupiah time deposits	989	738

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5. RESTRICTED TIME DEPOSITS (continued)

	30 June 2019	31 December 2018
Time deposits - US Dollars		
BRI	12,817	4,334
Bank Mandiri	10,208	10,197
HSBC	<u>402</u>	<u>400</u>
Total US Dollar time deposits	<u>23,427</u>	<u>14,931</u>
Total time deposits	<u>24,416</u>	<u>15,669</u>
Less: current portion	<u>33</u>	<u>32</u>
Non-current portion	<u>24,383</u>	<u>15,637</u>

The contractual interest rates on the restricted time deposits during the period/year were as follows:

	30 June 2019	31 December 2018
Rupiah	6.70% - 8.00%	4.25% - 8.00%
US Dollars	0.50% - 2.25%	0.20% - 2.75%

There are no restricted time deposits held with related parties.

The restricted time deposits are placed as security for bank guarantees issued by HSBC (Note 37c) and mine rehabilitation, reclamation and post-mining guarantees with Bank Mandiri and BRI (Note 38).

6. AVAILABLE-FOR-SALE FINANCIAL ASSETS

Available-for-sale financial assets represent investments in debt securities in the form of Government and corporate bonds with fixed interest rates ranging from 5.13% - 8.50% (31 December 2018: 4.75% - 8.50%) per annum with maturities ranging from 16 to 26 years (31 December 2018: 17 to 29 years) and investments in unlisted debt securities with maturities of more than one year.

	30 June 2019	31 December 2018
Beginning balance	104,044	253,844
Additions	13,605	22,024
Disposals	(41,968)	(160,244)
Amortisation	(232)	(626)
Unrealised gains/(losses) on fair value	<u>12,139</u>	<u>(10,954)</u>
Sub-total	<u>87,588</u>	<u>104,044</u>
Less: current portion	<u>59,239</u>	<u>89,147</u>
Non-current portion	<u>28,349</u>	<u>14,897</u>

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6. AVAILABLE-FOR-SALE FINANCIAL ASSETS (continued)

Fair value movements in available-for-sale financial assets for the six-month period ended 30 June 2019 with net gains amounting to US\$12,139 (for the six-month period ended 30 June 2018: net losses of US\$10,423) are presented in other comprehensive (loss)/income.

During the six-month period ended 30 June 2019, gains on sales of available-for-sale financial assets amounting to US\$110 (for the six-month period ended 30 June 2018: losses of US\$4,831) were presented as part of "Other income/(expenses), net" in profit or loss.

Effective interest income earned on available-for-sale financial assets during the six-month period ended 30 June 2019 amounting to US\$2,140 (for the six-month period ended 30 June 2018: US\$3,688) was presented as part of "Finance income" in profit or loss.

The maximum exposure to credit risk at the reporting date is the carrying value of the debt securities classified as available-for-sale.

Available-for-sale financial assets are denominated in US Dollars and Rupiah.

None of these financial assets are either past due or impaired.

The Group's management is of the opinion that there are no events or changes of circumstances which indicate permanent decline in the fair value of the available-for-sale financial assets, therefore, no provision for impairment in the value of available-for-sale financial assets is necessary.

As at 30 June 2019 and 31 December 2018, there are no available-for-sale financial assets from related parties.

Refer Note 40(2) for information on the fair value of available-for-sale financial assets.

7. TRADE RECEIVABLES

	30 June 2019	31 December 2018
Third parties	400,871	367,479
Related parties	5,308	3,415
Total, net	406,179	370,894

The Group's trade receivables are denominated in the following currencies:

	30 June 2019	31 December 2018
US Dollars	254,632	185,086
Rupiah	151,547	185,808
Total	406,179	370,894

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7. TRADE RECEIVABLES (continued)

The aging analysis of trade receivables is as follows:

	30 June 2019	31 December 2018
Current	356,482	354,560
Overdue by 1 - 30 days	37,778	12,488
Overdue by 31 - 60 days	5,531	1,965
Overdue by 61 - 90 days	1,527	199
Overdue by more than 90 days	4,861	1,682
Total	<u>406,179</u>	<u>370,894</u>

Based on a review of the status of the individual trade receivables accounts as at 30 June 2019 and 31 December 2018, the Group's management is of the opinion that the trade receivables will be fully collected and therefore no provision for impairment losses is considered necessary.

Refer to Note 32 for information on the details of transactions and balances with related parties.

8. ADVANCES AND PREPAYMENTS

	30 June 2019	31 December 2018
Advances for the purchase of fixed assets and projects	64,035	55,012
Advances to suppliers	3,117	3,294
Prepaid rent and insurance	2,936	2,849
Others	7,542	7,854
Total	<u>77,630</u>	<u>69,009</u>
Less: current portion	<u>11,716</u>	<u>12,488</u>
Non-current portion	<u>65,914</u>	<u>56,521</u>

Management believes that all advances are recoverable.

9. INVENTORIES

	30 June 2019	31 December 2018
Coal inventory	60,602	70,781
Spare parts	27,445	23,485
Fuel and lubricants	13,684	9,683
Tools and supplies	6,229	8,056
Total	<u>107,960</u>	<u>112,005</u>

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9. INVENTORIES (continued)

In 2018, one of the Group's mining service subsidiaries recognised a decline in the value of spare parts inventory amounted to US\$7,471 as the management believes that this amount can not be realised. The loss on decline in value of inventory was presented as part of "Other income/(expenses), net" in profit or loss.

Refer to Note 10 for information on the details of decline in value of inventories.

As at 30 June 2019, the Group's inventories were covered by insurance against the risk of material damage with total coverage of US\$77,108 (31 December 2018: US\$77,021). The Group's management is of the opinion that the inventories are adequately insured to cover the risk of loss and damage.

The Group's management is of the opinion that the inventories can be either used or sold. Management also believes that the net realisable value of inventories exceeds the carrying value of inventories, and therefore, a provision for obsolete stock and decline in value is not considered necessary as at 30 June 2019.

10. FIXED ASSETS

	30 June 2019				
	Beginning balance	Additions	Disposals/ reclassifications	Exchange differences due to financial statements translation	Ending balance
Acquisition costs					
<u>Direct ownership</u>					
Land	75,687	392	-	157	76,236
Buildings	111,174	1,062	2,469	146	114,851
Infrastructure	228,391	374	3,150	231	232,146
Power plants	143,019	6	-	-	143,025
Machinery, operational equipment and vehicles	1,582,078	68,292	28,680	164	1,679,214
Vessels	302,481	-	11,730	135	314,346
Office equipment	25,783	1,955	-	52	27,790
Crushing and handling facilities	319,841	48	-	-	319,889
Roads and bridges	262,231	-	24	-	262,255
Sub-total	3,050,685	72,129	46,053	885	3,169,752
Construction in progress	265,866	117,511	(18,348)	552	365,581
<u>Leased assets</u>					
Operational equipment	237,513	31,151	(42,381)	-	226,283
Total	3,554,064	220,791	(14,676)	1,437	3,761,616
Accumulated depreciation					
<u>Direct ownership</u>					
Buildings	(40,977)	(4,602)	-	(55)	(45,634)
Infrastructure	(96,554)	(7,822)	-	(64)	(104,440)
Power plants	(31,077)	(3,062)	-	-	(34,139)
Machinery, operational equipment and vehicles	(1,114,363)	(43,241)	(22,034)	(48)	(1,179,686)
Vessels	(105,210)	(8,483)	444	(26)	(113,275)
Office equipment	(22,153)	(675)	-	(50)	(22,878)
Crushing and handling facilities	(217,607)	(13,346)	-	-	(230,953)
Roads and bridges	(146,049)	(11,702)	-	-	(157,751)
Sub-total	(1,773,990)	(92,933)	(21,590)	(243)	(1,888,756)
<u>Leased assets</u>					
Operational equipment	(66,444)	(21,299)	34,288	-	(53,455)
Total	(1,840,434)	(114,232)	12,698	(243)	(1,942,211)
Accumulated impairment					
Machinery, operational equipment and vehicles	(103,929)	-	-	-	(103,929)
Net book value	1,609,701				1,715,476

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10. FIXED ASSETS (continued)

	31 December 2018				
	Beginning balance	Additions	Disposals/ reclassifications	Exchange differences due to financial statements translation	Ending balance
Acquisition costs					
<u>Direct ownership</u>					
Land	78,507	2,639	(4,843)	(616)	75,687
Buildings	99,358	3,107	9,226	(517)	111,174
Infrastructure	216,763	2,340	9,525	(237)	228,391
Power plants	134,419	8,600	-	-	143,019
Machinery, operational equipment and vehicles	1,461,156	145,402	(24,238)	(242)	1,582,078
Vessels	277,211	-	25,565	(295)	302,481
Office equipment	23,767	2,509	(342)	(151)	25,783
Crushing and handling facilities	317,798	610	1,433	-	319,841
Roads and bridges	242,108	-	20,123	-	262,231
Sub-total	2,851,087	165,207	36,449	(2,058)	3,050,685
Construction in progress	133,007	203,204	(69,227)	(1,118)	265,866
<u>Leased assets</u>					
Operational equipment	171,644	116,713	(50,844)	-	237,513
Total	3,155,738	485,124	(83,622)	(3,176)	3,554,064
Accumulated depreciation					
<u>Direct ownership</u>					
Buildings	(32,634)	(8,662)	178	141	(40,977)
Infrastructure	(79,883)	(16,803)	71	61	(96,554)
Power plants	(25,132)	(5,945)	-	-	(31,077)
Machinery, operational equipment and vehicles	(1,024,426)	(106,265)	16,209	119	(1,114,363)
Vessels	(90,641)	(15,944)	1,310	65	(105,210)
Office equipment	(21,605)	(1,129)	470	111	(22,153)
Crushing and handling facilities	(191,066)	(26,815)	274	-	(217,607)
Roads and bridges	(124,921)	(21,206)	78	-	(146,049)
Sub-total	(1,590,308)	(202,769)	18,590	497	(1,773,990)
<u>Leased assets</u>					
Operational equipment	(58,877)	(34,029)	26,462	-	(66,444)
Total	(1,649,185)	(236,798)	45,052	497	(1,840,434)
Accumulated impairment					
Machinery, operational equipment and vehicles	-	(103,929)	-	-	(103,929)
Net book value	1,506,553				1,609,701

Depreciation expense for the six-month periods ended 30 June 2019 and 2018 was allocated as follows:

	30 June 2019	30 June 2018
Cost of revenue (Note 29)	110,885	122,642
Operating expenses	3,274	2,708
Capitalised as mining properties	73	128
Total	114,232	125,478

The calculation of loss on disposal of fixed assets for the six-month periods ended 30 June 2019 and 2018 was as follows:

	30 June 2019	30 June 2018
Acquisition costs	14,676	49,531
Accumulated depreciation	(12,698)	(14,110)
Carrying value of disposed fixed assets	1,978	35,421
Proceeds from disposal of fixed assets	1,411	32,057
Loss on disposal of fixed assets	(567)	(3,364)

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10. FIXED ASSETS (continued)

Loss on disposal of fixed assets is presented by the Group as part of "Other income/(expenses), net" in profit or loss.

In accordance with the CCA, certain fixed assets of AI recorded in these interim consolidated financial statements remain the property of the Government. However, AI has an exclusive right to use these assets over the contract period, or their useful lives, whichever is shorter.

In accordance with the Cooperation Agreement, certain fixed assets of IBT in the coal port operation, which are recorded in these interim consolidated financial statements will become the property of Pelindo III at the end of the 30-year operating period.

There is no significant difference between the fair value and carrying amount of fixed assets, except for certain land and buildings. The fair value and carrying amount of such land and buildings as at 31 December 2018 is US\$27,718 and US\$14,558, respectively. The value is based on the latest appraisal report and classified as Level 3 in the fair value hierarchy.

As at 30 June 2019, the Group's fixed assets were insured against all risks of damage, with total coverage of approximately US\$2,756,748 (31 December 2018: US\$2,615,179), except for fixed assets that could not be insured such as land, the Barito channel dredging and certain construction in progress.

The Group's management is of the opinion that the fixed assets were adequately insured as at 30 June 2019 and 31 December 2018.

As at 30 June 2019, the acquisition cost of fixed assets with a net book value of zero but which are still in use amounted to US\$1,017,018 (31 December 2018: US\$971,599).

As at 30 June 2019 and 31 December 2018, all leased assets were pledged for finance lease payables (Note 19). As at 30 June 2019, certain directly owned fixed assets of the Group with a carrying value of US\$9,720 have been pledged as security for a commercial property loan (31 December 2018: US\$9,798) (Note 20f).

Changes in estimated useful lives and residual value

Effective from 1 January 2018, SIS, a subsidiary of the Company, changed the estimated useful lives and residual value of several items of operational equipment. The details of the changes in estimated useful lives and residual value are as follows:

a. Changes in estimated useful lives

<u>Assets</u>	<u>Before change</u>	<u>After change</u>
Operational equipment	6 - 8 years	5 - 7 years

b. Changes in residual value

<u>Assets</u>	<u>Before change</u>	<u>After change</u>
Operational equipment	5% - 10%	4%

The changes were made based on the SIS' engineering department's review and comparison with general industry practice. The changes were applied prospectively and resulted in an increase in depreciation expense of US\$20,726 for the six-month period ended 30 June 2018.

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10. FIXED ASSETS (continued)
Construction in progress

Construction in progress represents projects that were not completed as at the date of the interim consolidated statements of financial position as follows:

<u>Construction in progress</u>	<u>Percentage of completion</u>	<u>Accumulated costs</u>	<u>Estimated completion</u>
<u>30 June 2019</u>			
Roads and bridges	8% - 98%	143,003	September 2019 - December 2019
Infrastructure	15% - 99%	93,411	August 2019 - January 2020
Crushing and handling facilities	5% - 99%	45,669	August 2019 - December 2019
Lain-lain	1% - 99%	<u>83,498</u>	Various
Total		<u>365,581</u>	

<u>Construction in progress</u>	<u>Percentage of completion</u>	<u>Accumulated costs</u>	<u>Estimated completion</u>
<u>31 December 2018</u>			
Roads and bridges	1% - 90%	84,238	February 2019 - December 2019
Infrastructure	10% - 99%	79,784	February 2019 - November 2020
Crushing and handling facilities	5% - 99%	34,793	February 2019 - December 2019
Others	1% - 99%	<u>67,051</u>	Various
Total		<u>265,866</u>	

Borrowing costs capitalised to construction in progress for the six-month period ended 30 June 2019 amounted to US\$5,449 (for the six-month period ended 30 June 2018: US\$nil).

In accordance with the Group's accounting policies, management tests its fixed assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Based on the Group's assessment regarding the future use of certain of the fixed assets held by one of the Group's mining services subsidiaries, management performed an assessment of whether these fixed assets were impaired.

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10. FIXED ASSETS (continued)
Construction in progress (continued)

The Group used an income approach to assess the recoverable amount of the CGU. The income approach is predicated upon the value of the future cash flows that a business will generate going forward. The DCF method was used which involves projecting cash flows and converting them to a present value equivalent through discounting. The discounting process uses a rate of return that is commensurate with the risk associated with the business or asset and the time value of money.

As at 31 December 2018, the recoverable amount of the CGU was determined based on value-in-use calculations which require the use of assumptions. The valuation technique uses significant unobservable inputs, which represent a Level 3 fair value. The calculations use cash flow projections based on financial budgets approved by management covering a four-year period. Cash flows beyond the four-year period use an estimated growth rate of 0%. Cash flow projections were discounted to a present value using a pre-tax discount rate of 12.67%.

As a result, the recoverable value of the assets is US\$85,246, and therefore, the Group recognised an impairment charge of US\$111,400 which comprised impairment of fixed assets amounting to US\$103,929 and inventory amounting to US\$7,471 (Note 9) which is presented in "Other income/(expenses), net" in the profit or loss for the year ended 31 December 2018.

As at 30 June 2019 and 31 December 2018, management believes that the provision for impairment losses is adequate to cover the impairment of the carrying values of fixed assets.

11. INVESTMENTS IN JOINT VENTURES

	30 June 2019	31 December 2018
Kestrel	528,035	488,106
TPI	50,035	11,761
BPI	38,194	77,021
DTP	863	-
Total	617,127	576,888

As at 30 June 2019 and 31 December 2018, the joint ventures of the Group are as follows:

Name of entity	Domicile	Percentage of ownership	Business activity
Kestrel	Australia	47.99%	Coking coal mine
TPI	Indonesia	65.00%	Electric power generation and transmission
BPI	Indonesia	34.00%	Electric power generation and transmission
DTP	Indonesia	49.00%	Water treatment

Kestrel

On 27 March 2018, ACL, an indirect subsidiary of the Company, and EMR Capital Limited, through a jointly-controlled company (later known as Kestrel Coal Resources Pty Ltd), a wholly-owned subsidiary of Kestrel, entered into a binding agreement with Rio Tinto to acquire a participating interest of 80% in the unincorporated Kestrel Joint Venture ("KJV"). KJV operates a coking coal mine in the Bowen Basin, the world's premier metallurgical coal region.

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11. INVESTMENTS IN JOINT VENTURES (continued)

On 24 July 2018, ACL, Kestrel Coal (EMR) Pty Ltd and Kestrel Coal (EMR) Limited entered into a Shareholders Agreement to jointly own, control and finance Kestrel. As at 30 June 2019 and 31 December 2018, the percentage of ownership of ACL, Kestrel Coal (EMR) Pty Ltd and Kestrel Coal (EMR) Limited is 47.99%, 4.75% and 47.26%, respectively.

On 24 July 2018, ACL, Kestrel and EMR Capital Management Limited also entered into a Warrant Agreement, whereby Kestrel issued certain warrants on shares to ACL and EMR Capital Management Limited in the event certain conditions are met in accordance with the terms contained in the Agreement. The fair value of the warrants issued to ACL as at 31 December 2018 has been included in the carrying value of the investment in Kestrel.

On 1 August 2018, Kestrel's acquisition of an 80% participating interest in KJV became effective.

DTP

On 2 April 2019, ATM and PT Adhi Karya (Persero) Tbk with the shares ownership of 49% and 51%, respectively, established DTP to build, operate and maintain water supply system in Dumai.

On 15 April 2019, DTP and PDAM Tirta Dumai Bersemai signed "Perjanjian Kerjasama Pembangunan, Pengoperasian dan Pemeliharaan Sistem Penyediaan Air Minum Kota Dumai Dalam Rangka Kerjasama Pemerintah dan Badan Usaha" ("Cooperation Agreement"). The Cooperation Agreement among others, to build, operate, maintain and fund water supply system in Dumai for 25 years from the date of commercial operation.

The Group's joint ventures are private companies and there are no quoted market prices available for their shares.

The table below provides a summary of the financial information of the Group's joint ventures, all of which are unlisted.

	Kestrel		BPI		TPI		DTP	
	30 June	31	30 June	31	30 June	31	30 June	31
	2019	December	2019	December	2019	December	2019	December
		2018		2018		2018		2018
Cash and cash equivalents	229,725	200,374	10,717	8,844	14,182	6,159	1,761	-
Current assets	362,719	278,363	20,866	28,642	27,031	9,647	1,761	-
Non-current assets	2,260,269	2,316,276	3,071,580	2,670,667	485,669	442,505	-	-
Current liabilities	193,405	167,031	62,414	50,379	15,945	141,503	-	-
Non-current liabilities	1,407,344	1,490,535	2,917,697	2,422,397	419,778	292,555	-	-
Revenue	451,519	300,561	550,964	1,320,303	44,219	99,090	-	-
Depreciation and amortisation	(71,781)	(43,196)	(295)	(456)	(114)	(98)	-	-
Finance income	2,406	2,745	96	124	-	699	4	-
Finance costs	(71,351)	(59,643)	(54,562)	(66,642)	(9,649)	(17,740)	(4)	-
Profit/(loss) before income tax	131,731	(168,305)	55,207	87,849	7,820	12,967	(7)	-
Profit/(loss) for the period/year	92,021	(118,127)	39,968	63,273	4,974	8,833	(7)	-
Other comprehensive(loss)/income for the period/year	(6,855)	(4,232)	(154,166)	37,580	(12,211)	4,525	-	-
Percentage of ownership (%)	47.99	47.99	34.00	34.00	65.00	65.00	49.00	-

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11. INVESTMENTS IN JOINT VENTURES (continued)

The reconciliation of the summarised financial information presented to the carrying amount of the Group's interests in the joint ventures is as follows:

	Kestrel		BPI		TPI		DTP	
	30 June 2019	31 December 2018	30 June 2019	31 December 2018	30 June 2019	31 December 2018	30 June 2019	31 December 2018
At the beginning of the period/year	937,073	-	226,533	125,680	18,094	4,736	-	-
Addition	-	1,059,432	-	-	66,120	-	1,768	-
Other comprehensive (loss)/income for the period/year	(6,855)	(4,232)	(154,166)	37,580	(12,211)	4,525	-	-
Profit/(loss) for the period/year	<u>92,021</u>	<u>(118,127)</u>	<u>39,968</u>	<u>63,273</u>	<u>4,974</u>	<u>8,833</u>	<u>(7)</u>	<u>-</u>
At the end of the period/year	1,022,239	937,073	112,335	226,533	76,977	18,094	1,761	-
Percentage of ownership (%)	<u>47.99</u>	<u>47.99</u>	<u>34.00</u>	<u>34.00</u>	<u>65.00</u>	<u>65.00</u>	<u>49.00</u>	<u>-</u>
	490,572	449,701	38,194	77,021	50,035	11,761	863	-
Mining properties	25,460	26,402	-	-	-	-	-	-
Warrants	<u>12,003</u>	<u>12,003</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Carrying amount of investments in joint ventures	<u>528,035</u>	<u>488,106</u>	<u>38,194</u>	<u>77,021</u>	<u>50,035</u>	<u>11,761</u>	<u>863</u>	<u>-</u>

For the six-month periods ended as at 30 June 2019 and 2018, share of other comprehensive (loss)/income recognised by the Group amounted to (US\$63,643) and US\$34,026, respectively, while share in net profit of joint ventures recognised by the Group amounted to US\$60,038 and US\$11,967, respectively.

The Group has representation on the Boards of Directors in the above joint ventures.

The Group's management is of the opinion that there are no events or changes of circumstances which indicate permanent decline in the fair value of the investments, therefore, no provision for impairment in the value of investments in joint ventures is necessary.

12. MINING PROPERTIES

	30 June 2019		
	Mines under development	Mines in production	Total
Acquisition costs			
Beginning balance	1,630,771	1,665,164	3,295,935
Transfer from mines under development to mines in production	(276,051)	276,051	-
Additions	<u>16,108</u>	<u>14,842</u>	<u>30,950</u>
Ending balance	<u>1,370,828</u>	<u>1,956,057</u>	<u>3,326,885</u>
Accumulated amortisation			
Beginning balance	-	(926,240)	(926,240)
Amortisation	<u>-</u>	<u>(62,551)</u>	<u>(62,551)</u>
Ending balance	<u>-</u>	<u>(988,791)</u>	<u>(988,791)</u>
Provision for impairment losses	<u>(40,705)</u>	<u>(32,267)</u>	<u>(72,972)</u>
Total carrying amount	<u>1,330,123</u>	<u>934,999</u>	<u>2,265,122</u>

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12. MINING PROPERTIES (continued)

	31 December 2018		
	Mines under development	Mines in production	Total
<u>Acquisition costs</u>			
Beginning balance	1,602,001	1,635,171	3,237,172
Additions	<u>28,770</u>	<u>29,993</u>	<u>58,763</u>
Ending balance	<u>1,630,771</u>	<u>1,665,164</u>	<u>3,295,935</u>
<u>Accumulated amortisation</u>			
Beginning balance	-	(808,942)	(808,942)
Amortisation	<u>-</u>	<u>(117,298)</u>	<u>(117,298)</u>
Ending balance	<u>-</u>	<u>(926,240)</u>	<u>(926,240)</u>
Provision for impairment losses	<u>(72,972)</u>	<u>-</u>	<u>(72,972)</u>
Total carrying amount	<u>1,557,799</u>	<u>738,924</u>	<u>2,296,723</u>

All amortisation of mining properties was allocated to cost of revenue (Note 29).

Management is of the opinion that the provision for impairment in the value of mining properties is adequate to cover any losses from the impairment of mining properties as at 30 June 2019 and 31 December 2018.

13. GOODWILL

	<u>Amount</u>
Balance as at 31 December 2018	793,610
Impairment charge	<u>-</u>
Balance as at 30 June 2019	<u>793,610</u>

Detail of goodwill based on lines of business, is as follows:

	<u>Coal mining and trading</u>	<u>Mining services</u>	<u>Logistics</u>	<u>Total</u>
30 June 2019 and 31 December 2018	<u>675,614</u>	<u>39,665</u>	<u>78,331</u>	<u>793,610</u>

In accordance with the Group's accounting policy, goodwill is tested for impairment annually (Note 21). For the purpose of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows (CGU).

The Group used an income approach to assess the impairment value of certain CGUs. The income approach is predicated upon the value of the future cash flows that a business will generate going forward. The DCF method was used which involves projecting cash flows and converting them to a present value equivalent through discounting. The discounting process uses a rate of return that is commensurate with the risk associated with the business or asset and the time value of money.

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13. GOODWILL (continued)

The key assumptions used for recoverable amount calculations as at 31 December 2018 are as follows:

	<u>Coal mining and trading</u>	<u>Mining services</u>	<u>Logistics</u>
Growth rate after five years	0%	0%	0%
Post-tax discount rate (for fair value less costs of disposal calculation)	9.5% - 12.0%	10%	9.5%

Management determined the key assumptions based on a combination of past experience and external sources.

The fair value determined in the calculation of the recoverable amount of assets is classified as Level 3 in the fair value hierarchy.

As at 31 December 2018, one of the Group's coal mining and trading companies had the highest sensitivity to changes in key assumptions. The CGU had an excess of recoverable amount, calculated based on the fair value less costs of disposal method, over the carrying value of US\$2,322. A rise in the discount rate (with other assumptions remaining unchanged) of 0.02% would remove the remaining headroom for the relevant CGU.

In accordance with the Group's accounting policy, goodwill is tested for impairment annually (Note 2l). As there were no indicators of impairment for any of the CGUs, management has not updated the impairment assessments as of 30 June 2019.

14. TRADE PAYABLES

	<u>30 June 2019</u>	<u>31 December 2018</u>
Third parties	<u>328,445</u>	<u>341,766</u>

Details of trade payables based on currencies are as follows:

	<u>30 June 2019</u>	<u>31 December 2018</u>
Rupiah	238,797	243,289
US Dollars	89,569	97,733
Euro	38	38
Australian Dollars	22	565
Yen	16	1
Singapore Dollars	3	140
Total	<u>328,445</u>	<u>341,766</u>

Trade payables balances mainly arose from the purchase of fuel, spare parts, repair and maintenance services, coal transportation services and coal mining services.

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15. ROYALTIES PAYABLE

	<u>30 June 2019</u>	<u>31 December 2018</u>
Government royalties payable, net	<u>52,103</u>	<u>8,516</u>

Government royalties payable is subject to audit by the Directorate of Mineral and Coal Business Supervision, the MoEMR. AI has offset recoverable taxes against royalty payments (Note 31b).

16. ACCRUED EXPENSES

	<u>30 June 2019</u>	<u>31 December 2018</u>
Suppliers and contractors	35,907	23,759
Freight cost	4,841	6,580
Interest	4,745	5,607
Others	<u>18,256</u>	<u>16,261</u>
Total	<u>63,749</u>	<u>52,207</u>

17. LOANS FROM A THIRD PARTY

On 22 October 2014, PCS and SCM, indirect subsidiaries of the Company, entered into Loan Agreements with Far East Investment Ltd ("FEIL"), a third party, under which FEIL provided loan facilities to PCS and SCM with total amounts of US\$8,760 and US\$6,630, respectively. On 23 March 2017, the loan agreement has been amended to change the total amount of the loan facilities for PCS and SCM to US\$9,065 and US\$6,861, respectively. The loans bear interest at the London Interbank Offered Rate ("LIBOR") plus a certain percentage and are not bound by any collateral. The loans are due on 31 August 2020. The agreement has been amended several times with the latest amendment on 13 September 2017 to amend the interest payment schedule.

As at 30 June 2019 and 31 December 2018, the outstanding balances recorded by PCS and SCM were as follows:

	<u>Amount</u>
PCS	9,046
SCM	<u>4,386</u>
Total	<u>13,432</u>

During the six-month periods ended 30 June 2019 and 2018, PCS and SCM did not make any instalment payment.

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18. DERIVATIVE FINANCIAL INSTRUMENTS

	30 June 2019	31 December 2018
<u>Derivative liabilities</u>		
- Interest rate swaps	11,175	3,372
- Fuel hedges	4,061	16,740
Total	15,236	20,112
Less:		
Current portion	8,440	17,590
Non-current portion	6,796	2,522
<u>Interest rate swaps</u>		

AI's interest rate swaps as at 30 June 2019 and 31 December 2018 were as follows:

	<u>Counterparties</u>	<u>Notional amount</u>	<u>Maturity date</u>
US\$1,000,000 Facility Agreement	CIMB Bank Berhad, Singapore Branch	188,500	25 August 2021
	OCBC Bank, Singapore Branch	188,500	25 August 2021
	DBS Bank, Singapore Branch	188,500	25 August 2021
	Sumitomo Mitsui Banking Corporation, Singapore Branch	188,500	25 August 2021

AI entered into interest rate swap agreements on a portion of its debt to receive interest at floating rates and to pay interest at fixed rates. AI uses interest rate swap agreements in managing interest risk exposure and the transactions are effective cash flow hedges.

Fuel hedges

AI's fuel hedges as at 30 June 2019 and 31 December 2018 were as follows:

	<u>Contract date</u>	<u>Period start</u>	<u>Period end</u>	<u>Quantity (barrels)</u>
CIMB Bank Berhad	27 November 2017	1 January 2018	31 December 2018	180,000
Morgan Stanley & Co. International Plc	5 December 2017	1 January 2018	31 December 2018	180,000
Morgan Stanley & Co. International Plc	5 February 2018	1 February 2018	31 December 2018	165,000
Standard Chartered Bank	9 February 2018	9 February 2018	31 December 2018	88,000
Morgan Stanley & Co. International Plc	12 February 2018	1 March 2018	31 December 2018	80,000
CIMB Bank Berhad	7 November 2018	1 January 2019	31 December 2019	420,000
CIMB Bank Berhad	12 November 2018	1 January 2019	31 December 2019	240,000
Australia and New Zealand Banking Group Ltd	14 November 2018	1 January 2019	31 December 2019	180,000

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18. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

The maximum exposure to credit risk at the reporting date is the fair value of the derivative liabilities in the interim consolidated statement of financial position.

All derivatives are based on the price GAS OIL-0.05 SINGAPORE-PLATTS ASIA-PACIFIC and the transactions are effective cash flow hedges.

Fair value gains on hedging instruments designated as cash flow hedges for the six-month periods ended 30 June 2019 and 2018 amounting to US\$5,364 and US\$1,890, respectively, are presented in other comprehensive (loss)/income, while the realised losses on the hedges charged to profit or loss amounted to US\$3,339 (for the six-month period ended 30 June 2018: gains US\$2,880) for fuel hedges and US\$612 (for the six-month period ended 30 June 2018: US\$nil) for interest rate swaps for the six-month period ended 30 June 2019. The fuel hedges and interest rate swaps are presented as part of "Cost of revenue" and "Finance costs" in profit or loss, respectively.

19. FINANCE LEASE PAYABLES

	30 June 2019	31 December 2018
PT Komatsu Astra Finance	79,047	78,195
PT Mitra Pinasthika Mustika Finance	37,819	16,306
PT Industrial Bank of Japan Verena	19,706	23,596
PT SMFL Leasing Indonesia	11,694	13,218
PT Orix Indonesia Finance	9,677	11,749
PT JA Mitsui Leasing Indonesia	9,649	11,601
PT Bank Bumiputera	2,980	3,400
PT Caterpillar Finance Indonesia	<u>2,515</u>	<u>4,628</u>
Total	<u>173,087</u>	<u>162,693</u>
Less:		
Current portion	<u>42,159</u>	<u>37,404</u>
Non-current portion	<u>130,928</u>	<u>125,289</u>

Future minimum lease payments under finance leases together with the present value of the minimum lease payments as at 30 June 2019 and 31 December 2018 were as follows:

	30 June 2019	31 December 2018
Payable not later than one year	49,478	44,033
Payable later than one year and not later than five years	<u>140,776</u>	<u>135,326</u>
	<u>190,254</u>	<u>179,359</u>
Less:		
Future financing charges	<u>17,167</u>	<u>16,666</u>
Present value of minimum finance lease payments	<u>173,087</u>	<u>162,693</u>

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19. FINANCE LEASE PAYABLES (continued)

Future minimum lease payments under finance leases together with the present value of the minimum lease payments as at 30 June 2019 and 31 December 2018 were as follows:
(continued)

	30 June 2019	31 December 2018
Payable not later than one year	42,159	37,404
Payable later than one year and not later than five years	<u>130,928</u>	<u>125,289</u>
Present value of minimum finance lease payments	<u>173,087</u>	<u>162,693</u>

During the six-month period ended 30 June 2019, SIS entered into finance leases of US\$31,151 (for the six-month period ended 30 June 2018: US\$17,149) and made lease payments of US\$20,757 (for the six-month period ended 30 June 2018: US\$23,307).

The significant general terms and conditions of the finance leases are as follows:

- the Group is restricted from selling, leasing, or otherwise disposing of or ceasing to exercise direct control over the leased assets;
- the Group is restricted from creating or allowing any encumbrance to all or any part of the leased assets; and
- in the event of default, the lessor has the right to repossess the leased assets.

Refer to Note 40(2) for information on the fair value of the finance lease payables as at 30 June 2019 and 31 December 2018.

20. BANK LOANS

	30 June 2019	31 December 2018
US\$1,000,000 Facility Agreement, net of unamortised financing cost of US\$7,045 (31 December 2018: US\$8,671)	620,955	687,329
US\$380,000 Facility Agreement, net of unamortised financing cost of US\$1,382 (31 December 2018: US\$2,136)	196,618	207,864
US\$350,000 Facility Agreement, net of unamortised financing cost of US\$3,305 (31 December 2018: US\$4,775)	156,695	164,225
US\$200,000 Facility Agreement, net of unamortised financing cost of US\$1,836 (31 December 2018: US\$2,203)	100,164	107,297
US\$120,000 Facility Agreement, net of unamortised financing cost of US\$971 (31 December 2018: US\$1,167)	79,029	82,833
Commercial Property Loan	<u>5,309</u>	<u>5,650</u>
Total	<u>1,158,770</u>	<u>1,255,198</u>
Less:		
Current portion	<u>364,291</u>	<u>182,671</u>
Non-current portion	<u>794,479</u>	<u>1,072,527</u>

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20. BANK LOANS (continued)

The interest rates on the long-term bank loans are as follows:

	<u>30 June 2019</u>	<u>31 December 2018</u>
US Dollars	3.3% - 5.7%	2.9% - 5.3%
Singapore Dollars	1.9% - 3.5%	1.9% - 2.6%

a. US\$1,000,000 Facility Agreement

On 25 August 2014, AI entered into a Credit Facility Agreement of US\$1,000,000 with a syndicate of international banks for which Oversea-Chinese Banking Corporation Limited acts as the facility agent. The Company and Coaltrade act as the Guarantors of this loan facility. This Facility Agreement has been amended, with the most recent amendment dated 31 May 2017.

This loan facility was used for the purposes of loan refinancing. This facility has a final maturity date of 25 August 2021 and is payable on a quarterly basis. This facility bears interest at LIBOR plus a certain percentage.

During the six-month period ended 30 June 2019, AI has made instalment payments amounting to US\$68,000 (for the six-month period ended 30 June 2018: US\$58,000). As at 30 June 2019, the outstanding balance of this loan facility was US\$628,000 (31 December 2018: US\$696,000) and is repayable according to the following schedule:

<u>Payment schedule (year)</u>	<u>Payment amount</u>
2019	72,000
2020	144,000
2021	412,000
Total	<u>628,000</u>

In accordance with the loan agreement, AI is required to maintain certain financial ratios. AI is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 30 June 2019 and 31 December 2018, AI is in compliance with the financial ratios and related terms and conditions.

b. US\$380,000 Facility Agreement

On 29 May 2013, AI entered into a Credit Facility Agreement of US\$380,000 with a syndicate of international banks for which DBS Bank Ltd acts as the facility agent. The Company and Coaltrade act as the Guarantors for this loan facility. This Facility Agreement has been amended, with the most recent amendment dated 31 May 2017.

This loan facility was used for the purpose of loan refinancing. This facility has a final maturity date of 29 May 2020 and is payable on a quarterly basis. This facility bears interest at LIBOR plus a certain percentage.

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20. BANK LOANS (continued)
b. US\$380,000 Facility Agreement (continued)

During the six-month period ended 30 June 2019, AI has made instalment payments amounting to US\$12,000 (for the six-month period ended 30 June 2018: US\$12,000). As at 30 June 2019, the outstanding balance of this loan facility was US\$198,000 (31 December 2018: US\$210,000) and is repayable according to the following schedule:

<u>Payment schedule (year)</u>	<u>Payment amount</u>
2019	12,000
2020	<u>186,000</u>
Total	<u>198,000</u>

In accordance with the loan agreement, AI is required to maintain certain financial ratios. AI is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 30 June 2019 and 31 December 2018, AI is in compliance with the financial ratios and related terms and conditions.

c. US\$350,000 Facility Agreement

On 20 August 2018, SIS entered into a Credit Facility Agreement of US\$350,000 with a syndicate of international and national banks for which Bank Mandiri acts as the facility agent. The Company acts as the Guarantor for this loan facility.

This facility consists of a revolving loan facility of US\$350,000 with a final maturity date of 20 August 2020. This facility bears interest at LIBOR plus a certain percentage.

This facility was used for general corporate purposes and for paying transaction costs and expenses associated with the facility.

During the six-month period ended 30 June 2019, SIS made drawdowns amounting to US\$41,000 and repayments of US\$50,000. As at 30 June 2019, the outstanding balance of this loan facility was US\$160,000 (31 December 2018: US\$169,000).

In accordance with the loan agreement, SIS is required to maintain certain financial ratios. SIS is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 30 June 2019 and 31 December 2018, SIS is in compliance with the financial ratios and related terms and conditions.

d. US\$200,000 Facility Agreement

On 21 December 2015, SIS entered into a Credit Facility Agreement of US\$200,000 with a syndicate of international and national banks for which DBS Bank Limited acts as the facility agent. The Company acts as the guarantor of this loan facility. A second amendment to this Facility Agreement was executed on 20 August 2018.

This facility consists of a term loan facility of US\$140,000 and a revolving loan facility of US\$60,000 with a final maturity date of 21 December 2021, repayable on a quarterly basis with the first instalment due in September 2016. This facility bears interest at LIBOR plus a certain percentage.

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20. BANK LOANS (continued)
d. US\$200,000 Facility Agreement (continued)

This facility was used for loan refinancing, paying transaction costs and expenses associated with the facility and for other general corporate purposes.

During the six-month period ended 30 June 2019, SIS has made instalment payments amounting to US\$7,500 (for the six-month period ended 30 June 2018: US\$7,000) on the term loan facility. As at 30 June 2019, the outstanding balance of this term loan facility was US\$102,000 (31 December 2018: US\$109,500) and is repayable according to the following schedule:

<u>Payment schedule (year)</u>	<u>Payment amount</u>
2019	8,000
2020	19,000
2021	<u>75,000</u>
Total	<u>102,000</u>

During the six-month period ended 30 June 2019, SIS did not make any drawdown or repayment of the revolving loan facility (for the six-month period ended 30 June 2018: SIS made drawdowns on the revolving loan facility amounting to US\$16,000 and repayments of US\$60,000). As at 30 June 2019 and 31 December 2018, there is no outstanding balance on the revolving loan facility.

In accordance with the loan agreement, SIS is required to maintain certain financial ratios. SIS is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 30 June 2019 and 31 December 2018, SIS is in compliance with the financial ratios and related terms and conditions.

e. US\$120,000 Facility Agreement

On 21 December 2015, MBP entered into a Credit Facility Agreement of US\$120,000 with a syndicate of international and national banks for which DBS Bank Limited acts as the facility agent. The Company acts as the guarantor of this loan facility. This Facility Agreement has been amended dated 23 June 2017.

This facility consists of a term loan facility of US\$100,000 and a revolving loan facility of US\$20,000 with a final maturity date of 21 December 2021, repayable on a quarterly basis with the first instalment due in March 2017. This facility bears interest at LIBOR plus a certain percentage.

These facilities were used for financing capital expenditure, loan refinancing, paying transaction costs and expenses associated with the facility and for other general corporate purposes.

During the six-month periods ended 30 June 2019 and 2018, MBP has made instalment payments amounting to US\$4,000, respectively, on the term loan facility. As at 30 June 2019, the outstanding balance of this term loan facility was US\$80,000 (31 December 2018: US\$84,000) and is repayable according to the following schedule:

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20. BANK LOANS (continued)
e. US\$120,000 Facility Agreement (continued)

<u>Payment schedule (year)</u>	<u>Payment amount</u>
2019	4,000
2020	12,000
2021	64,000
Total	80,000

During the six-month periods ended 30 June 2019 and 2018, MBP did not make any drawdown or repayment of the revolving loan facility. As at 30 June 2019 and 31 December 2018, there is no outstanding balance on the revolving loan facility.

In accordance with the loan agreement, MBP is required to maintain certain financial ratios. MBP is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 30 June 2019 and 31 December 2018, MBP is in compliance with the financial ratios and related terms and conditions.

f. Commercial Property Loan Agreement

Coaltrade entered into a credit facility agreement of S\$10,519,680 (full amount) (equivalent to US\$7,753) with Oversea-Chinese Banking Corporation Limited as set out in the letter of offer dated 16 June 2017 ("OCBC Letter of Offer"). This loan facility was used for purchase of commercial property. The property is pledged for this facility (Note 10). This loan bears interest at the Singapore Swap Offer Rate ("SOR") plus a certain percentage and has a final maturity date ten years from the first drawdown date.

On 11 July 2017, Coaltrade has drawdown S\$9,204,720 (full amount) (equivalent to US\$6,784) from the facility. During the six-month period ended 30 June 2019, Coaltrade has made instalment payments amounting to S\$528,000 (full amount) (equivalent to US\$389) (for the six-month period ended 30 June 2018: S\$528,000 (full amount) (equivalent to US\$397)). As at 30 June 2019, the outstanding balance of this loan facility was S\$7,180,720 (full amount) (equivalent to US\$5,309) (31 December 2018: S\$7,708,720 (full amount) (equivalent to US\$5,650) and is repayable according to the following schedule:

<u>Payment schedule (year)</u>	<u>Payment amount</u>
2019	390
2020	781
2021	781
2022	781
2023	781
2024	781
2025	781
2026	233
Total	5,309

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20. BANK LOANS (continued)
f. Commercial Property Loan Agreement (continued)

Coaltrade is required to comply with certain terms and conditions set out in the OCBC Letter of Offer, including the restriction on the use of the property (Note 10). As at 30 June 2019 and 31 December 2018, Coaltrade is in compliance with the related terms and conditions.

Refer to Note 40(2) for information on the fair value of the long-term bank loans as at 30 June 2019 and 31 December 2018.

21. POST-EMPLOYMENT BENEFITS LIABILITIES

Post-employment benefits liabilities as at 31 December 2018 were calculated by PT Padma Radya Aktuaria ("PRA"), independent actuaries, in actuarial reports issued in 2019, while for the post-employment benefit liabilities recognised in the interim consolidated financial statements as at 30 June 2019 and post-employment benefits expense for the six-month periods ended 30 June 2019 and 2018 are based on the projections calculated by PRA.

The principal assumptions used in determining the Group's post-employment benefits liabilities are as follows:

	30 June 2019	31 December 2018
Discount rate	8.00% - 9.50%	8.00% - 9.50%
Salary growth rate	5% - 10%	5% - 10%
Normal retirement age	55	55
Mortality rate from the Indonesian Mortality Table	100% TMI3	100% TMI3

Through its defined benefit pension plans, the Group is exposed to a number of significant risks which are detailed below:

- 1) Changes in discount rate
A decrease in discount rate will increase plan liabilities.
- 2) Salary growth rate
The Group's pension obligations are linked to salary growth rate, and higher salary growth rate will lead to higher liabilities.

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions as at 30 June 2019 is as follows:

		Impact on defined benefits obligation	
	Change in assumptions	Increase in assumptions	Decrease in assumptions
Discount rate	1%	(5,949)	6,867
Salary growth rate	1%	7,172	(6,318)

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21. POST-EMPLOYMENT BENEFITS LIABILITIES (continued)

Post-employment benefits liabilities recognised in the interim consolidated statements of financial position as at 30 June 2019 and 31 December 2018 are computed as follows:

	30 June 2019	31 December 2018
Present value of funded obligations	13,657	12,273
Fair value of plan assets	<u>(1,281)</u>	<u>(1,226)</u>
Deficit of the funded plans	12,376	11,047
Present value of unfunded obligations	<u>58,460</u>	<u>52,200</u>
Total liability	<u>70,836</u>	<u>63,247</u>

The movement in the Group's fair value of plan assets during the period/year is as follows:

	30 June 2019	31 December 2018
At the beginning of the period/year	1,226	1,327
Interest income on plan assets	27	91
Remeasurement loss:		
Return on plan assets, excluding amount included in interest income	-	(107)
Foreign exchange difference	<u>28</u>	<u>(85)</u>
At the end of the period/year	<u>1,281</u>	<u>1,226</u>

The movement in the present value of the Group's defined benefits obligation is as follows:

	30 June 2019	31 December 2018
At the beginning of the period/year	64,473	66,252
Current service cost	5,101	9,997
Interest expense	2,689	4,195
Past service cost	-	(1,789)
Remeasurements:		
- Gain from change in financial assumptions	-	(6,332)
- Loss from change in demographic assumptions	-	2,317
- Gain from experience adjustments	-	(161)
Benefits paid	(1,688)	(5,021)
Foreign exchange difference	<u>1,542</u>	<u>(4,985)</u>
At the end of the period/year	<u>72,117</u>	<u>64,473</u>

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21. POST-EMPLOYMENT BENEFITS LIABILITIES (continued)

The movement in the Group's post-employment benefits liabilities is as follows:

	30 June 2019	31 December 2018
At the beginning of the period/year	63,247	64,925
Current service cost	5,101	9,997
Interest expense, net	2,662	4,104
Past service cost	-	(1,789)
Remeasurements:		
- Gain from change in financial assumptions	-	(6,332)
- Loss from change in demographic assumptions	-	2,317
- Gain from experience adjustments	-	(161)
- Return on plan assets, excluding amount included in interest income	-	107
Benefits paid	(1,688)	(5,021)
Foreign exchange difference	1,514	(4,900)
At the end of the period/year	<u>70,836</u>	<u>63,247</u>

The amounts recognised in profit or loss are as follows:

	30 June 2019	30 June 2018
Current service cost	5,101	4,749
Interest expense, net	2,662	2,158
Remeasurements:		
- Gain from change in financial assumptions	-	(130)
- Gain from experience adjustments	-	(10)
Past service cost	-	-
Foreign exchange difference	1,514	(3,974)
Total	<u>9,277</u>	<u>2,793</u>

The actual return on plan assets for the year ended 31 December 2018 was a loss of US\$16.

As at 30 June 2019 and 31 December 2018, the plan assets were fully invested in the money market, which did not have a quoted market.

The weighted average duration of the defined benefits plan obligation at the end of the reporting year for the Group is approximately 5 to 25 years.

Expected maturity analysis of undiscounted pension benefits as at 30 June 2019 is presented below:

	<u>Less than 1 year</u>	<u>Between 1-2 years</u>	<u>Between 2-5 years</u>	<u>Over 5 years</u>	<u>Total</u>
Pension benefits	<u>1,741</u>	<u>6,125</u>	<u>26,378</u>	<u>545,974</u>	<u>580,218</u>

The management of the Group believes that the estimated liability provided for post-employment benefits is adequate to cover the requirements of the Labour Law.

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22. PROVISION FOR MINE REHABILITATION, RECLAMATION AND CLOSURE

	30 June 2019	31 December 2018
Beginning balance	125,100	115,724
Addition	7,808	16,788
Realisation	(3,494)	(8,501)
Accretion	269	1,432
Foreign exchange difference	91	(343)
Ending balance	<u>129,774</u>	<u>125,100</u>

The additions in the provision for the six-month periods ended 30 June 2019 and 2018 were allocated to cost of revenue amounting to US\$4,703 and US\$3,307 (Note 29), respectively, and the remaining balance is capitalised to mining properties and fixed assets.

Provision for mine rehabilitation, reclamation and closure represents the provision set up by the Group to comply with the Ministerial Regulation of Environment and Forestry No. P.89/MENLHK/SETJEN/KUM.1/11/2016 (Note 37j) and GR No. 78 (Notes 3 and 38) for rehabilitation of the watershed area, reclamation and post-mining activities for coal mining business. Management is of the opinion that the accumulated provisions as at the reporting date are sufficient to meet the above obligations.

23. SHARE CAPITAL

All shares in the Company have been listed on the Indonesia Stock Exchange since 16 July 2008. The Company's shareholders as at 30 June 2019 and 31 December 2018 based on the records maintained by PT Kustodian Sentral Efek Indonesia ("KSEI"), the share administrator, were as follows:

Shareholders	Number of shares	Percentage of ownership (%)	Amount
30 June 2019			
PT Adaro Strategic Investments	14,045,425,500	43.91	150,589
Garibaldi Thohir (President Director)	1,976,632,710	6.18	21,193
Edwin Soeryadjaya (President Commissioner)	1,051,738,544	3.29	11,276
Theodore Permadi Rachmat (Vice President Commissioner)	812,988,601	2.54	8,717
Arini Saraswati Subianto (Commissioner)	79,399,250	0.25	851
Christian Ariano Rachmat (Vice President Director)	20,000,000	0.06	214
Julius Aslan (Director)	17,000,000	0.05	182
Chia Ah Hoo (Director)	9,093,500	0.03	97
Other shareholders	13,973,683,895	43.69	149,821
Total	<u>31,985,962,000</u>	<u>100.00</u>	<u>342,940</u>
31 December 2018			
PT Adaro Strategic Investments	14,045,425,500	43.91	150,589
Garibaldi Thohir (President Director)	1,976,632,710	6.18	21,193
Edwin Soeryadjaya (President Commissioner)	1,051,738,544	3.29	11,276
Theodore Permadi Rachmat (Vice President Commissioner)	812,422,101	2.54	8,710
Arini Saraswati Subianto (Commissioner)	79,399,250	0.25	851
Christian Ariano Rachmat (Vice President Director)	20,000,000	0.06	214
Julius Aslan (Director)	17,000,000	0.05	182
Chia Ah Hoo (Director)	9,093,500	0.03	97
Other shareholders	13,974,250,395	43.69	149,828
Total	<u>31,985,962,000</u>	<u>100.00</u>	<u>342,940</u>

Ordinary shares entitle the holder to participate in dividends and the proceeds on the winding up of the Company in proportion to the number of and amounts paid on the shares held.

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24. ADDITIONAL PAID-IN CAPITAL, NET

The balance of additional paid-in capital as at 30 June 2019 and 31 December 2018 is as follows:

	<u>Amount</u>
Additional paid-in capital from IPO	1,219,813
Share issuance costs	(44,532)
Difference in value from restructuring transactions of entities under common control	<u>(20,787)</u>
Additional paid-in capital, net	<u>1,154,494</u>

The additional paid-in capital from IPO results from the IPO in 2008.

25. RETAINED EARNINGS

	<u>Unappropriated</u>	<u>Appropriated</u>	<u>Total</u>
Balance as at 1 January 2018	<u>1,910,668</u>	<u>56,053</u>	<u>1,966,721</u>
Profit for the period attributable to owners of the parent entity	195,383	-	195,383
Remeasurement of post-employment benefits liabilities, net of tax	615	-	615
Appropriation of retained earnings	(4,833)	4,833	-
Dividends	<u>(150,014)</u>	<u>-</u>	<u>(150,014)</u>
Balance as at 30 June 2018	<u>1,951,819</u>	<u>60,886</u>	<u>2,012,705</u>
Balance as at 1 January 2019	<u>2,100,391</u>	<u>60,886</u>	<u>2,161,277</u>
Profit for the period attributable to owners of the parent entity	296,856	-	296,856
Appropriation of retained earnings	(4,177)	4,177	-
Dividends	<u>(125,065)</u>	<u>-</u>	<u>(125,065)</u>
Balance as at 30 June 2019	<u>2,268,005</u>	<u>65,063</u>	<u>2,333,068</u>

The Limited Liability Company Law of the Republic of Indonesia No. 40/2007, issued in August 2007, requires the establishment of a general reserve from net income amounting to at least 20% of a company's issued and paid-up capital. This general reserve is presented as appropriated retained earnings in the interim consolidated statements of financial position. There is no time limit on the establishment of the reserve.

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26. DIVIDENDS

At the Company's Annual General Meeting of Shareholders ("AGMS") held on 23 April 2018, a total cash dividend for 2017 of US\$250,130 (US\$0.00782/share - full amount) was approved. This included the interim cash dividend for 2017 of US\$100,116 which was approved at the Company's Boards of Commissioners and Directors Meeting held on 19 December 2017 and paid on 12 January 2018. The remaining US\$150,014 final cash dividend for 2017 was paid on 18 May 2018.

At the Company's Boards of Commissioners and Directors Meeting held on 17 December 2018, an interim cash dividend for 2018 of US\$75,167 (US\$0.00235/share - full amount) was approved. The interim cash dividend was paid on 15 January 2019.

At the Company's AGMS held on 30 April 2019, a total cash dividend for 2018 of US\$200,232 (US\$0.00626/share - full amount) was approved. This included the interim cash dividend for 2018 of US\$75,167 which was approved at the Company's Boards of Commissioners and Directors Meeting held on 17 December 2018 and paid on 15 January 2019. The remaining US\$125,065 final cash dividend for 2018 was paid on 24 May 2019, therefore, as at 30 June 2019, the Group did not have any outstanding dividend payable (31 December 2018: dividends payable amounting to US\$75,167 and AI's payable to non-controlling interests amounting to US\$8,606).

27. NON-CONTROLLING INTERESTS

30 June 2019							
Beginning balance	Acquisition of non-controlling interest	Changes in non-controlling interest due to establishment of a subsidiary	Share in net profit/(loss)	Dividends	Other comprehensive income/(loss)	Ending balance	
PT Bhakti Energi Persada	413,957	-	-	(221)	-	(403)	413,333
PT Adaro Indonesia	101,435	-	-	14,156	(2,603)	1,141	114,129
Others (each below US\$50,000)	136,901	(1,267)	424	10,408	(3,433)	(257)	142,776
Total	652,293	(1,267)	424	24,343	(6,036)	481	670,238

31 December 2018						
Beginning balance	Issuance of subsidiaries' shares to non-controlling interests	Share in net profit/(loss)	Dividends	Other comprehensive (loss)/income	Ending balance	
PT Bhakti Energi Persada	416,014	-	(2,132)	-	75	413,957
PT Adaro Indonesia	108,136	-	42,484	(47,153)	(2,032)	101,435
Others (each below US\$50,000)	99,207	20,249	19,469	(1,921)	(103)	136,901
Total	623,357	20,249	59,821	(49,074)	(2,060)	652,293

28. REVENUE

	30 June 2019	30 June 2018
Third parties:		
Sales of coal		
Export	1,344,975	1,205,838
Domestic	283,765	281,366
Sub-total	1,628,740	1,487,204
Mining services		
Domestic	103,374	89,035
Others		
Domestic	36,311	33,536

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28. REVENUE (continued)

	<u>30 June 2019</u>	<u>30 June 2018</u>
Related parties:		
Sales of coal		
Domestic	6,337	-
Others		
Domestic	467	516
Sub-total	6,804	516
Total	<u>1,775,229</u>	<u>1,610,291</u>

Details of customers with revenue transactions that represent more than 10% of the total interim consolidated revenue for the six-month periods ended 30 June 2019 and 2018 are as follows:

	<u>30 June 2019</u>	<u>30 June 2018</u>
Third party:		
TNB Fuel Services Sdn. Bhd.	<u>229,235</u>	<u>196,198</u>

Refer to Note 32 for information on the details of transactions and balances with related parties.

29. COST OF REVENUE

	<u>30 June 2019</u>	<u>30 June 2018</u>
Sales of coal		
Mining	556,537	538,827
Royalties to Government	188,735	168,713
Coal processing	96,445	86,542
Freight and handling costs	94,267	83,505
Depreciation (Note 10)	87,240	95,237
Amortisation of mining properties (Note 12)	62,551	57,060
Purchase of coal	5,874	-
Mine reclamation and closure costs (Note 22)	4,703	3,307
Coal inventory (Note 9):		
Beginning balance	70,781	43,147
Ending balance	(60,602)	(68,616)
Total cost of revenue - sales of coal	<u>1,106,531</u>	<u>1,007,722</u>

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29. COST OF REVENUE (continued)

	30 June 2019	30 June 2018
Mining services		
Consumables	21,184	19,257
Depreciation (Note 10)	18,783	22,314
Repairs and maintenance	16,549	22,527
Employee costs	15,395	13,545
Subcontractors	8,476	10,283
Others	<u>7,215</u>	<u>5,904</u>
Total cost of revenue - mining services	<u>87,602</u>	<u>93,830</u>
Others		
Depreciation (Note 10)	4,862	5,091
Consumables	2,188	2,601
Others	<u>9,661</u>	<u>9,045</u>
Total cost of revenue - others	<u>16,711</u>	<u>16,737</u>
Total	<u>1,210,844</u>	<u>1,118,289</u>

Details of suppliers with purchase transactions that represent more than 10% of the total interim consolidated revenue for the six-month periods ended 30 June 2019 and 2018 are as follows:

	30 June 2019	30 June 2018
Third party:		
PT Pamapersada Nusantara ("Pama")	<u>190,254</u>	<u>192,205</u>

30. OPERATING EXPENSES

	30 June 2019	30 June 2018
Selling and marketing		
Sales commission	22,716	19,487
Others	<u>333</u>	<u>285</u>
Sub-total	<u>23,049</u>	<u>19,772</u>
General and administrative		
Employee costs	50,955	43,590
Professional fees	16,413	8,174
Final tax	2,945	2,286
Others	<u>21,385</u>	<u>16,026</u>
Sub-total	<u>91,698</u>	<u>70,076</u>
Total	<u>114,747</u>	<u>89,848</u>

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31. TAXATION
a. Prepaid taxes

	30 June 2019	31 December 2018
VAT	62,040	89,741
Corporate Income Tax ("CIT")	<u>15,191</u>	<u>16,069</u>
Total	<u>77,231</u>	<u>105,810</u>
Less: current portion	<u>46,613</u>	<u>72,295</u>
Non-current portion	<u>30,618</u>	<u>33,515</u>

b. Recoverable taxes

	30 June 2019	31 December 2018
Vehicle fuel tax ("PBBKB") receivables	14,309	8,789
Others	<u>15</u>	<u>15</u>
Total	<u>14,324</u>	<u>8,804</u>

According to the CCA, AI is subject to sales tax on services rendered in Indonesia, pursuant to prevailing laws and regulations governing sales tax. With the enactment of Law No. 8 of 1983 which introduced VAT, sales tax was repealed.

AI is of the opinion that VAT is different from sales tax in both form and substance and therefore, VAT is considered to be a new tax. According to the provisions of the CCA, the Government will pay, assume and hold AI harmless from all Indonesian taxes, duties, rentals and royalties levied by the Government imposed after the date of the CCA. Accordingly, AI had offset claims for recoverable VAT against royalties payable.

In May 2006, the MoEMR, on behalf of the Government, alleged that AI had underpaid royalties due on coal sales for the years from 2001 and demanded payment thereof. AI strongly rejected the allegation because it had discharged its obligation to pay such royalties by way of the offsetting described above. AI accordingly filed an objection at the Jakarta Administrative Court against the MoEMR. In May 2006, the Jakarta Administrative Court granted an order restricting the MoEMR from taking any further administrative steps on the issue until a final and binding judgement is made.

In September 2006, the Jakarta Administrative Court issued a decision in favour of AI. The Jakarta Administrative High Court concurred with the Jakarta Administrative Court in February 2007. On 26 September 2008, on cassation, the Supreme Court concurred with the decision of the Jakarta Administrative High Court. The decision of the Supreme Court is final and binding.

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31. TAXATION (continued)

b. Recoverable taxes (continued)

Separately in June 2006, the MoEMR granted authority to the Committee for State Claim Affairs (the "Committee") to pursue the alleged underpayment of royalties on its behalf. In July 2007, the Committee issued a demand for payment to AI. As this is an industry-wide problem, similar demands were made by the Committee to other first-generation coal companies. In September 2007, AI filed an objection with the Jakarta Administrative Court against the Committee. In September 2007, the Jakarta Administrative Court granted an order restricting the Committee from taking any further administrative steps on the issue until a final and binding judgement is made.

On 15 February 2008, the Jakarta Administrative Court issued a decision in favour of AI. The Jakarta Administrative High Court concurred with the Jakarta Administrative Court on 1 July 2008. On 22 July 2009, on cassation, the Supreme Court concurred with the decision of the Jakarta Administrative High Court. On 29 January 2010, the Committee filed a civil review against the decision of the Supreme Court. On 31 January 2011, the Jakarta Administrative Court informed AI that the civil review had passed judgement, where the Supreme Court by its decision No. 47/PK/TUN/2010, dated 20 July 2010 had rejected the request for civil review by the Committee. The Supreme Court decision is therefore final and binding.

In 2008, the Government through the Financial and Development Supervisory Board ("BPKP"), commenced an audit to resolve the dispute on the offsetting of claims for recoverable VAT paid against royalties payable for the fiscal years from 2001 to 2007. In September 2008, in good faith, AI placed a deposit amounting to Rp150 billion (full amount) with the Government to signify its willingness to pay any duly determined unpaid amounts in relation to the dispute (the "Deposit").

In August 2009, BPKP continued its audit in relation to the VAT paid and the amount offset against royalties payable and sales tax for the fiscal years prior to 2001, as well as fiscal years 2001 until 2012.

On 6 December 2012, the Minister of Finance issued Regulation No. 194/PMK.03/2012 ("PMK 194") that governs procedures of collection, remittance and reporting of sales tax and the treatment of VAT and/or Luxury Goods Sales Tax on first generation CCA contractors, including AI. PMK 194 became effective on 1 January 2013. PMK 194 stipulates that the first generation of CCA contractors must collect, remit and report sales tax on the utilisation of particular services as listed in the regulation. PMK 194 also stipulates that the VAT and/or Luxury Goods Sales Tax are not collected on the delivery of VAT-able goods and/or services by a VAT-able Entrepreneur to the contractors, including AI. Management is of the opinion that the law ("Undang-Undang") to impose sales tax had been repealed and there is no prevailing law that serves as a valid legal basis for the Government to impose sales tax on AI, despite the fact that the Government had issued PMK 194. For this reason, management believes that sales tax cannot currently be legally imposed on AI.

On 17 December 2014, the DGT, on behalf of the Government, and AI agreed to a settlement of the dispute on the offsetting of claims for recoverable VAT against royalty payable for the fiscal years 2001 to 2007 (the "Settlement"). The Government agreed in the Settlement to acknowledge the offset of claims for recoverable VAT against royalties payable. Due to this settlement, the audit for fiscal years 2001 until 2007 performed by BPKP has been settled.

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31. TAXATION (continued)

b. Recoverable taxes (continued)

On 22 December 2014, in furtherance of the Settlement, AI received a letter from the DGT which informed the results of the recalculation of rights and obligations of the Government and AI performed by BPKP for the fiscal years 2001 to 2007. The result shows an overpayment of royalties amounting to Rp7.1 billion (full amount), inclusive of interest of Rp2.3 billion (full amount) and underpayment of sales tax amounting to Rp109.1 billion (full amount) (equivalent to US\$8,770 as at 31 December 2014) for the fiscal years 2001 to 2007 and administrative fees of Rp402.3 million (full amount) (equivalent to US\$32 as at 31 December 2014).

In further settlement dated 29 December 2014, AI had, in good faith, permitted the Government to, at its sole discretion, make use of the aforesaid Deposit to apply to allegedly unpaid sales tax amounting to Rp109.1 billion (full amount) (equivalent to US\$8,770 as at 31 December 2014) for the fiscal years 2001 to 2007 and Rp59.3 billion (full amount) (equivalent to US\$4,770 as at 31 December 2014) for the fiscal year 2008.

However, management does not agree with the assessment with regards to the underpayment of sales tax determined by BPKP since the law to impose sales tax had been repealed in 1983 and there is no prevailing law that serves as a valid legal basis for the Government to impose sales tax on AI, despite the fact that the Government had issued PMK 194. Because of this reason, management believes that sales tax cannot currently be legally imposed on AI, and that AI should take steps to recover the sales tax in accordance with the applicable law by applying the reimbursement and offset provisions in the CCA.

On 5 January 2015, AI received a letter from the Head of State Asset and Auction Office Jakarta V ("KPKNL") informing AI that the remaining balance of the Deposit stands at Rp214.6 million (full amount). As at 30 June 2019 and 31 December 2018, the balance of the Deposit was Rp214.6 million (full amount) (equivalent to US\$15).

Based on the minutes of meeting that was held on 8 April 2016 and attended by BPKP, the Audit Board of the Republic of Indonesia (*Badan Pemeriksa Keuangan Republik Indonesia* ("BPK RI")), Ministry of Finance and MoEMR, the Government agreed to acknowledge the offset of claims for the PBBKB against royalties payable.

In further settlement on 15 December 2016, the DGT, MoEMR, and AI agreed to a settlement of the dispute on the offsetting of claims for recoverable VAT and PBBKB against royalties payable for the fiscal years 2008 to 2012 and the sales tax settlement for the fiscal years 2001 to 2016. Due to this settlement, the audit for fiscal years 2008 to 2012 performed by BPKP has been settled.

AI in good faith and in the spirit to reach settlement on the difference of opinion and to put aside the arrangement that has been previously agreed between AI and the Government, at the request of the Government has finally conceded to pay sales tax. On 22 December 2016, AI has paid all sales tax that is due according to the Government. Based on the above minutes of meeting, the total sales tax amount is treated as a deductible expense in the CIT calculation as long as AI has paid before issuance of a Tax Assessment Letter.

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31. TAXATION (continued)
b. Recoverable taxes (continued)

In further settlement on 22 December 2017, the DGT, MoEMR and AI agreed to a settlement of the dispute on the offsetting of claims for recoverable taxes against royalties payable for the fiscal years 2013 until 2015, except for the offsetting of regional taxes against royalties payable for which all parties agreed to resolve the dispute in another separate settlement meeting. Due to this settlement, the audit for fiscal years 2013 until 2015 performed by BPKP has been settled, for which the audit result of royalty under payment was partially offset with AI's overpayment of royalties for fiscal years 2001 to 2007 amounted to Rp7.1 billion (full amount).

In the final settlement on 22 June 2018, the DGT, MoEMR and AI agreed to acknowledge the offsetting of regional tax against royalties payable.

The PBBKB receivables represent the balance of PBBKB that is reimbursable by the Government. The Government has confirmed that PBBKB is a new tax and therefore reimbursable according to the provisions of the CCA.

Based on the Amendment to the CCA (Note 1c), AI is allowed to offset royalties payable with reimbursement claims for PBBKB and any new taxes, duties and Government non-tax revenue levied by the Government after the date of the Amendment to the CCA.

For the six-month period ended 30 June 2019, AI had offset reimbursement claims for PBBKB against royalties payable to the Government amounting to US\$6,902 (for the year ended 31 December 2018: US\$26,624).

c. Taxes payable

	30 June 2019	31 December 2018
CIT	152,288	69,037
Other taxes:		
- Income tax articles 23 and 26	7,390	5,207
- VAT	1,465	1,483
- Others	11,128	7,221
Total	<u>172,271</u>	<u>82,948</u>

d. Income tax expense

	30 June 2019	30 June 2018
Current income tax	180,804	191,618
Deferred income tax	(25,325)	(29,711)
Income tax expense from prior year tax adjustments	11,586	227
Total consolidated income tax expense	<u>167,065</u>	<u>162,134</u>

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31. TAXATION (continued)
d. Income tax expense (continued)

The tax on consolidated profit before income tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the consolidated subsidiaries as follows:

	30 June 2019	30 June 2018
Consolidated profit before income tax	488,264	386,183
Tax calculated at applicable tax rates	177,594	171,012
Income subject to final tax	(42,270)	(29,411)
Non-deductible expenses	24,043	19,853
Tax facility	(1,079)	(1,054)
Tax audit assessments	1,403	227
Others	7,374	1,507
Consolidated income tax expense	<u>167,065</u>	<u>162,134</u>

The reconciliation between the consolidated profit before income tax and estimated consolidated taxable income is as follows:

	30 June 2019	30 June 2018
Consolidated profit before income tax	488,264	386,183
Profit before income tax - Subsidiaries	(497,824)	(389,251)
Adjustment for consolidation elimination entries	2,608	(7,008)
Loss before income tax - the Company	(6,952)	(10,076)
Fiscal corrections:		
Income subject to final tax	(827)	(1,022)
Non-deductible expenses	9,553	10,745
Sub-total	8,726	9,723
Taxable income/(tax loss) - the Company	1,774	(353)
Current income tax - the Company	444	-
Current income tax - Subsidiaries	180,360	191,618
Consolidated current income tax	<u>180,804</u>	<u>191,618</u>

Current income tax computations are based on estimated taxable income. The amounts may be adjusted when the Annual Tax Returns are filed to the tax office.

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31. TAXATION (continued)
d. Income tax expense (continued)

The income tax relating to other comprehensive income during the period is as follows:

	30 June 2019		
	Before tax	Tax charge	After tax
Cash flow hedges	5,364	(2,414)	2,950
Post-employment benefits liabilities	-	-	-
Total	5,364	(2,414)	2,950

	30 June 2018		
	Before tax	Tax charge	After tax
Cash flow hedges	1,890	(850)	1,040
Post-employment benefits liabilities	820	(205)	615
Total	2,710	(1,055)	1,655

e. Deferred tax assets/(liabilities)

	30 June 2019				
	Beginning balance	Credited/ (charged) to profit or loss	Charged to equity	Transfer to/ from deferred tax assets/ (liabilities)	Ending balance
Deferred tax assets					
Tax losses carried forward	-	124	-	-	124
Difference between the commercial and tax book values of fixed assets	18,239	3,312	-	-	21,551
Differences in fixed assets under finance leases and lease instalments	(2,159)	2,201	-	-	42
Post-employment benefits liabilities	10,569	1,224	-	-	11,793
Others	687	242	-	-	929
Deferred tax assets at the end of the period	27,336	7,103	-	-	34,439
Deferred tax liabilities					
Capitalised borrowing cost	(12,316)	126	-	-	(12,190)
Post-employment benefits liabilities	(542)	460	-	-	(82)
Mining properties	(477,294)	12,213	-	-	(465,081)
Changes in the fair values of derivative financial instruments	8,903	-	(2,414)	-	6,489
Differences between the commercial and tax book values of fixed assets	(60,088)	7,108	-	-	(52,980)
Tax losses carried forward	177	(2)	-	-	175
Provision for mine closure	6,603	129	-	-	6,732
Others	(4,946)	(1,812)	-	-	(6,758)
Deferred tax liabilities at the end of the period	(539,503)	18,222	(2,414)	-	(523,695)

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31. TAXATION (continued)
e. Deferred tax assets/(liabilities) (continued)

	31 December 2018				
	Beginning balance	Credited/ (charged) to profit or loss	Credited/ (charged) to equity	Transfer to/ from deferred tax assets/ (liabilities)	Ending balance
Deferred tax assets					
Tax losses carried forward	145	(145)	-	-	-
Difference between the commercial and tax book values of fixed assets	4,148	14,091	-	-	18,239
Differences in fixed assets under finance leases and lease instalments	(6,965)	4,806	-	-	(2,159)
Post-employment benefits liabilities	11,190	(354)	(267)	-	10,569
Others	248	439	-	-	687
Deferred tax assets at the end of the year	8,766	18,837	(267)	-	27,336
Deferred tax liabilities					
Capitalised borrowing cost	(16,938)	4,622	-	-	(12,316)
Post-employment benefits liabilities	191	228	(961)	-	(542)
Mining properties	(518,594)	41,300	-	-	(477,294)
Changes in the fair values of derivative financial instruments	(597)	-	9,500	-	8,903
Differences between the commercial and tax book values of fixed assets	(77,710)	17,622	-	-	(60,088)
Tax losses carried forward	98	79	-	-	177
Provision for mine closure	5,890	713	-	-	6,603
Others	(4,593)	(353)	-	-	(4,946)
Deferred tax liabilities at the end of the year	(612,253)	64,211	8,539	-	(539,503)

Due to the fact that several subsidiaries are in a loss position and only function as head offices, there is a limitation on the future use of tax losses carried forward and also uncertainty as to whether the deferred tax assets will be realised. Thus, a portion of the deferred tax assets relating to tax losses carried forward and post-employment benefits liabilities have not been recognised in these interim consolidated financial statements.

All of the deferred tax assets are expected to be recovered after 12 months.

The analysis of deferred tax liabilities is as follows:

	30 June 2019	31 December 2018
Deferred tax liabilities to be settled within 12 months	40,088	34,328
Deferred tax liabilities to be settled after 12 months	483,607	505,175
Total	523,695	539,503

f. Administration

Under the Taxation Laws of Indonesia, companies within the Group which are domiciled in Indonesia calculate and pay tax on the basis of self assessment. The DGT may assess or amend taxes within five years of the time the tax becomes due.

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31. TAXATION (continued)
g. Tax assessment letters

Below is a summary of the tax assessment letters received by SIS for which the status has not yet been completed:

<u>Tax type</u>	<u>Fiscal year</u>	<u>Tax assessment letter</u>	<u>Date of tax assessment letter</u>	<u>Dispute amount in US Dollars</u>	<u>Status</u>
CIT	2014	Overpayment	18 May 2016	963	Appeal
VAT	January-December 2014	Overpayment	15 March 2016	164	Appeal
CIT	2015	Overpayment	20 March 2017	1,157	Appeal
VAT	January-December 2015	Overpayment	25 January 2017	596	Appeal
CIT	2016	Overpayment	21 May 2019	1,069	Appeal
VAT	January-December 2016	Overpayment	19 December 2017	117	Appeal

Tax audits of the Group

As at the completion date of these interim consolidated financial statements, the Company, AP, AL, HBI, IMPT, JPI, LSA, SCM, PCS, AI, SIS, DSM, ATA, LC, APM, ATM, AML and RLI were being audited by the DGT for all types of taxes for fiscal year 2018. These entities have not yet received the tax audit results. Management is of the opinion that the tax audit results will not have a material impact on the Group's interim consolidated financial statements.

32. TRANSACTIONS AND BALANCES WITH RELATED PARTIES
a. Nature of relationships

<u>Related parties</u>	<u>Nature of relationships</u>
PT Adaro Strategic Investments	Majority shareholder
Subsidiaries and joint ventures	See Notes 1 and 11
Key management personnel	Directors and Commissioners of the Group

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32. TRANSACTIONS AND BALANCES WITH RELATED PARTIES (continued)
b. Details of transactions and balances

In the normal course of business, the Group engages in transactions with related parties, primarily consisting of purchases of services and other financial transactions.

	30 June 2019	31 December 2018
<u>Trade receivables (Note 7)</u>		
Sales of coal:		
TPI	5,168	3,272
Management and consulting services:		
BPI	81	80
TPI	59	63
Total	5,308	3,415
As a percentage of total consolidated assets	0.074%	0.048%
	30 June 2019	30 June 2018
<u>Revenue (Note 28)</u>		
Sales of coal:		
TPI	6,337	-
Management and consulting services:		
BPI	246	245
TPI	221	271
Total	6,804	516
As a percentage of total consolidated revenue	0.38%	0.03%

The Group's pricing policy related to transactions with related parties is set based on contracted price.

c. Key management compensation

The Boards of Commissioners and Directors of the Group are considered key management personnel.

The compensation for the Boards of Commissioners and Directors of the Group for the six-month periods ended 30 June 2019 and 2018, was as follows:

	30 June 2019	30 June 2018
Remuneration	17,072	17,204
Post-employment benefits	923	1,192
Total	17,995	18,396

The Boards of Commissioners and Directors do not receive any other benefits such as management stock options.

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33. EARNINGS PER SHARE

	30 June 2019	30 June 2018
Consolidated profit for the period attributable to the owners of the parent entity	296,856	195,383
Weighted average number of ordinary shares outstanding (in thousands of shares)	<u>31,985,962</u>	<u>31,985,962</u>
Basic earnings per share attributable to the owners of the parent entity (full amount)	<u>0.00928</u>	<u>0.00611</u>
Weighted average number of ordinary shares used as the denominator in calculating basic earnings per share (in thousands of shares)	31,985,962	31,985,962
Adjustments for calculation of diluted earnings per share (in thousands of shares):		
- Share options (Note 37s)	<u>2,381,730</u>	<u>2,381,730</u>
Weighted average number of ordinary shares used as the denominator in calculating diluted earnings per share (in thousands of shares)	<u>34,367,692</u>	<u>34,367,692</u>
Diluted earnings per share attributable to the owners of the parent entity (full amount)	<u>0.00864</u>	<u>0.00569</u>

34. NET MONETARY ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

As at 30 June 2019 and 31 December 2018, the Group had monetary assets and liabilities denominated in currencies other than US Dollars as follows:

	30 June 2019					
	in Rp'000	S\$ (full amount)	Euro (full amount)	A\$ (full amount)	Yen (full amount)	Equivalent in thousands of US Dollars
Monetary assets						
Cash and cash equivalents	2,378,938,020	433,463	1,610	-	-	168,453
Trade receivables	2,150,946,155	-	-	-	-	151,547
Prepaid taxes	892,997,626	-	-	-	-	63,147
Restricted time deposits	13,988,532	-	-	-	-	989
Available-for-sale financial assets	10,000,000	-	-	-	-	707
Other non-current assets	<u>214,671,736</u>	-	-	-	-	<u>15,181</u>
Total	<u>5,661,542,069</u>	<u>433,463</u>	<u>1,610</u>	<u>-</u>	<u>-</u>	<u>400,024</u>
Monetary liabilities						
Trade payables	(3,385,287,267)	(3,528)	(33,453)	(30,752)	(1,694,050)	(238,876)
Accrued expenses	(759,545,703)	-	-	-	-	(53,704)
Taxes payable	(297,107,949)	-	-	-	-	(20,931)
Short-term employee benefits liabilities	(33,591,327)	-	-	-	-	(2,375)
Post-employment benefits liabilities	(1,001,693,556)	-	-	-	-	(70,836)
Bank loans	-	(7,180,720)	-	-	-	(5,309)
Provision for mine rehabilitation, reclamation and closure	<u>(1,352,324,135)</u>	-	-	-	-	<u>(95,067)</u>
Total	<u>(6,829,549,937)</u>	<u>(7,184,248)</u>	<u>(33,453)</u>	<u>(30,752)</u>	<u>(1,694,050)</u>	<u>(487,098)</u>
Net liabilities	<u>(1,168,007,868)</u>	<u>(6,750,785)</u>	<u>(31,843)</u>	<u>(30,752)</u>	<u>(1,694,050)</u>	<u>(87,074)</u>
US\$ equivalent	<u>(82,011)</u>	<u>(4,987)</u>	<u>(38)</u>	<u>(22)</u>	<u>(16)</u>	<u>(87,074)</u>

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34. NET MONETARY ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES
(continued)

As at 30 June 2019 and 31 December 2018, the Group had monetary assets and liabilities denominated in currencies other than US Dollars as follows: (continued)

	31 December 2018					Equivalent in thousands of US Dollars
	in Rp'000	S\$ (full amount)	Euro (full amount)	A\$ (full amount)	Yen (full amount)	
Monetary assets						
Cash and cash equivalents	3,208,183,884	552,478	1,612	-	-	221,819
Trade receivables	2,693,208,884	-	-	-	-	185,808
Prepaid taxes	1,323,167,374	-	-	-	-	91,372
Restricted time deposits	10,681,429	-	-	-	-	738
Other non-current assets	195,195,003	-	-	-	-	13,479
Total	7,430,436,574	552,478	1,612	-	-	513,216
Monetary liabilities						
Trade payables	(3,525,083,986)	(190,835)	(33,519)	(780,036)	(118,250)	(244,033)
Accrued expenses	(605,787,357)	-	-	-	-	(41,832)
Taxes payable	(241,492,406)	-	-	-	-	(16,667)
Short-term employee benefits liabilities	(34,778,807)	-	-	-	-	(2,402)
Post-employment benefits liabilities	(916,165,028)	-	-	-	-	(63,247)
Bank loans	-	(7,708,720)	-	-	-	(5,650)
Provision for mine rehabilitation, reclamation and closure	(1,364,859,816)	-	-	-	-	(94,128)
Total	(6,688,167,400)	(7,899,555)	(33,519)	(780,036)	(118,250)	(467,959)
Net assets/(liabilities)	742,269,174	(7,347,077)	(31,907)	(780,036)	(118,250)	45,257
US\$ equivalent	51,244	(5,385)	(36)	(565)	(1)	45,257

Monetary assets and liabilities mentioned above are translated using the Bank Indonesia closing rate as at 30 June 2019 and 31 December 2018.

If assets and liabilities in currencies other than US Dollars as at 30 June 2019 are translated using the exchange rate as at the date of issuance of these interim consolidated financial statements, the total net monetary liabilities will decrease by approximately US\$67.

35. CASH FLOW INFORMATION
a. Non-cash transactions

The below table shows the Group's non-cash transactions during the period as follows:

	30 June 2019	30 June 2018
Non-cash activities:		
Acquisition of operational equipment under finance leases	31,151	17,149
Additions of fixed assets through accruals	26,849	11,922
Additions/(deductions) of fixed assets and mining properties through provision for mine rehabilitation, reclamation and closure	3,105	(972)
Additions of fixed assets and mining properties through capitalisation of borrowing costs	6,575	835
Addition of mining properties through capitalisation of depreciation expense	73	128

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35. CASH FLOW INFORMATION (continued)
b. Reconciliation of liabilities arising from financing activities

The below tables set out a reconciliation of liabilities arising from financing activities for the six-month periods ended 30 June 2019 and 2018 as follows:

			Non-cash changes				
	Beginning balance	Cash flows	Interest accretion	Foreign exchange rate movement	New leases	Fair value change	Ending balance
30 June 2019							
Finance lease payables	162,693	(20,757)	-	-	31,151	-	173,087
Bank loans	1,255,198	(100,889)	4,413	48	-	-	1,158,770
Interest rate swaps	3,372	-	-	-	-	7,803	11,175
Loans from a third party	13,432	-	-	-	-	-	13,432
Total	1,434,695	(121,646)	4,413	48	31,151	7,803	1,356,464
30 June 2018							
Finance lease payables	85,165	(23,307)	-	-	17,149	-	79,007
Bank loans	1,291,990	(125,397)	2,944	(120)	-	-	1,169,417
Interest rate swaps	-	-	-	-	-	1,472	1,472
Loans from a third party	15,892	-	-	-	-	-	15,892
Total	1,393,047	(148,704)	2,944	(120)	17,149	1,472	1,265,788

36. OPERATING SEGMENTS

Management has determined the operating segments based on reports reviewed by the Board of Directors, which has been identified as the Group's chief operating decision maker, which makes strategic decisions.

The Board of Directors considers the business operation from a business type perspective, which comprises coal mining and trading, mining services, logistics and others (power plant, asset management, etc.).

The segment information provided to the Board of Directors for the reportable segments is as follows:

	30 June 2019					
	Coal mining and trading	Mining services	Logistics	Others	Eliminations	Consolidated
External revenue	1,635,077	103,374	23,330	13,448	-	1,775,229
Inter-segment revenue	4,558	258,540	143,831	38,903	(445,832)	-
Revenue	1,639,635	361,914	167,161	52,351	(445,832)	1,775,229
Cost of revenue	(1,176,634)	(325,454)	(70,195)	(18,670)	380,109	(1,210,844)
Selling and marketing expense	(23,049)	-	-	-	-	(23,049)
General and administrative expense	(39,609)	(18,573)	(10,576)	(42,242)	19,302	(91,698)
Finance costs	(30,590)	(11,693)	(2,314)	(22,332)	32,612	(34,317)
Finance income	27,371	705	3,984	21,294	(41,349)	12,005
Income tax expense	(151,524)	(20,779)	(2,713)	(7,105)	15,056	(167,065)
Profit for the period	178,695	60,498	86,693	47,761	(52,448)	321,199
Depreciation and amortisation	(45,807)	(62,864)	(13,286)	(4,488)	(50,265)	(176,710)
30 June 2019						
Segment assets	3,424,084	978,122	548,502	1,643,808	562,857	7,157,373
Segment liabilities	2,302,371	612,426	116,881	1,257,398	(1,575,056)	2,714,020

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36. OPERATING SEGMENTS (continued)

The segment information provided to the Board of Directors for the reportable segments is as follows: (continued)

	30 June 2018					
	Coal mining and trading	Mining services	Logistics	Others	Eliminations	Consolidated
External revenue	1,487,204	89,035	19,004	15,048	-	1,610,291
Inter-segment revenue	6,375	220,511	95,934	31,591	(354,411)	-
Revenue	<u>1,493,579</u>	<u>309,546</u>	<u>114,938</u>	<u>46,639</u>	<u>(354,411)</u>	<u>1,610,291</u>
Cost of revenue	(1,025,347)	(325,232)	(59,649)	(16,878)	308,817	(1,118,289)
Selling and marketing expense	(19,772)	-	-	-	-	(19,772)
General and administrative expense	(14,527)	(15,313)	(8,751)	(36,372)	4,887	(70,076)
Finance costs	(27,535)	(4,975)	(2,159)	(10,272)	15,202	(29,739)
Finance income	15,765	957	1,643	8,336	(14,190)	12,511
Income tax expense	(177,481)	8,394	(860)	(3,927)	11,740	(162,134)
Profit for the period	245,444	(27,099)	43,035	(3,767)	(33,564)	224,049
Depreciation and amortisation	(49,390)	(67,325)	(12,348)	(4,094)	(49,253)	(182,410)
30 June 2018						
Segment assets	2,905,071	754,181	494,320	1,123,912	1,506,592	6,784,076
Segment liabilities	2,081,989	429,181	120,090	819,435	(832,450)	2,618,245

Sales by destination is as follows:

	30 June 2019	30 June 2018
Domestic	430,254	404,453
Export		
- Malaysia	229,235	196,516
- China	210,050	191,283
- India	196,829	171,525
- Japan	194,724	175,567
- Others	514,137	470,947
Total	<u>1,775,229</u>	<u>1,610,291</u>

Sales between segments are carried out at contracted prices. The revenue from external parties reported to the Board of Directors is measured in a manner consistent with that presented in profit or loss.

The amounts provided to the Board of Directors with respect to total assets and liabilities are measured in a manner consistent with the reporting in the interim consolidated statements of financial position.

37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES
a. Coal mining, hauling, barging, transshipment and other related agreements

AI, as a coal producer, has entered into a number of coal mining agreements. Under the agreements, AI is required to pay contractors a rental fee and a service fee, calculated on a monthly basis, based on a formula which includes the amount of raw coal transported and overburden mined and transported. The contractors will provide the equipment, machinery, appliances and other supplies necessary and also in some instances may use AI's own equipment for performing the mining and transportation services, and are required to meet certain minimum production requirements.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)
a. Coal mining, hauling, barging, transshipment and other related agreements (continued)

AI has also entered into coal barging, transport and transshipment agreements with contractors to provide coal transportation services from AI's main areas to certain port destinations and to provide floating crane services from the contractors' barge to customers' vessels. AI is required to pay contractors a service fee, calculated on a monthly basis, based on a formula which includes into account the amount of coal transported.

On 11 September 2015, AI entered into a fuel supply agreement with PT Pertamina (Persero) ("Pertamina"), whereby AI is required to pay Pertamina a price, based on a formula which consists of the volume of fuel supplied and the market price of fuel, and AI is required to purchase a minimum annual volume of fuel. This agreement was effective from 1 November 2015. This fuel supply agreement was amended on 1 December 2015 regarding changes in fuel price formula.

Contractor	Agreement type	Agreement date	Contract period end
Pama	Stripping of overburden and mining of coal	7 September 2009	31 July 2021
Pama	Coal transportation	7 September 2009	31 July 2021
PT Bukit Makmur Mandiri Utama	Stripping of overburden and mining of coal	6 April 2010	30 September 2022 or when the coal reserves at Paringin pit (according to the relevant JORC report) have been depleted, whichever is earlier
PT Mitra Bahtera Segara Sejati Tbk	Coal barging	1 October 2010	31 October 2019
PT Meratus Advance Maritim	Coal barging	1 December 2010	31 October 2019
Pertamina	Fuel supply	11 September 2015	1 October 2022
PT Bukit Makmur Mandiri Utama	Heavy equipment rental	28 September 2012	30 September 2022 or when the coal reserves at Paringin pit (according to the relevant JORC report) have been depleted, whichever is earlier
Pama	Heavy equipment rental	28 September 2012	31 July 2021

Under the agreements made by SIS and third party coal producers, SIS provides equipment through a rental mechanism, and provides mining services for overburden removal and hauling, and also coal hauling/transportation. SIS is required to meet a minimum production level for certain activities. SIS receives a service fee calculated on a monthly basis, based on a formula which includes several adjustment clauses.

Coal producer	Agreement date	Contract period or production level (metric tonnes/MT)
PT Berau Coal (Binungan Blok 1-4)	1 March 2007 - 21 September 2012	30 September 2012 - 31 December 2020
PT Berau Coal (Sambarata Blok B-1)	21 January 2008 - 21 September 2012	30 September 2012 - 31 December 2020
PT Berau Coal (Binungan Blok 5-6)	25 April 2018	1 August 2016 - 31 December 2020
PT Berau Coal (Sambarata B-West dan B-East)	31 January 2018	1 May 2017 - 30 April 2022
PT Borneo Indobara (Kusan)	23 February 2012	1 January 2012 - 31 December 2023

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

b. Land-Use Cooperation Agreement

On 4 November 2009, MSW and the Government of Tabalong Regency entered into a land-use cooperation agreement, for the use of 100.2 hectares of the Government of Tabalong Regency's land, located in Mabu'un village, Tabalong Regency, South Kalimantan. Under this land-use cooperation agreement, MSW has registered and obtained a land right ("HGB") over the Certificate of Management Rights held by the Government of Tabalong Regency.

On 27 February 2014, MSW and the Government of Tabalong Regency amended the term of land-use cooperation agreement to 50 years, revised the land area based on needs, and provided fixed contribution and profit sharing to the Government of Tabalong Regency.

c. Banking facilities

On 5 September 2007, AI entered into a banking facility agreement with HSBC to issue a bank guarantee. This agreement has been amended several times with the latest amendment dated 19 December 2016. The facility represents a combined limit facility amounting to US\$45,000 with treasury facility amounting to US\$5,000. This facility is not bound by any collateral. This agreement is valid until HSBC cancels, ceases or discharges AI in writing from its obligation under the agreement, or any other related agreement.

On 13 February 2008, AI entered into a banking facility amendment and restatement agreement with PT Bank DBS Indonesia for banking facilities. This agreement has been amended several times with the last amendment dated 22 October 2018. The facility is provided in the form of bank guarantees, bid bonds, performance bonds and stand-by letters of credit, with a total limit of US\$20,000. This facility is not bound by any collateral. On 16 August 2019, AI amended its banking facility agreement with PT Bank DBS Indonesia to extend the availability period of the facility to 15 October 2019.

On 28 April 2014, AI entered into a banking facility agreement with Bank Mandiri. The agreement was amended several times with the latest amendment dated 27 June 2019. The facility is provided to issue a treasury line with a total limit amounting to US\$75,000 and a bank guarantee with a total limit amounting to US\$50,000 in the form of bid and performance bonds. This facility can also be used by certain affiliated companies with certain terms and conditions. This facility is not bound by any collateral. The agreement is valid until 27 April 2020.

As at 30 June 2019, the total bank facilities used by AI which were obtained from HSBC, PT Bank DBS Indonesia and Bank Mandiri in various currencies, aggregated to US\$30,221 (31 December 2018: US\$47,730). These facilities were utilised in relation to sales contracts and reclamation guarantees.

On 20 April 2016, AP entered into a banking facility agreement with MUFG Bank Ltd (formerly known as The Bank of Tokyo-Mitsubishi UFJ Ltd), Jakarta Branch to issue a bank guarantee with a total limit amounting to US\$50,000 in the form of bid or performance bonds. This facility is fully guaranteed by the Company. This agreement has been amended on 20 April 2019 to extend the availability period of the facility to 20 April 2020.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

c. Banking facilities (continued)

On 19 May 2016, AP signed a banking facility letter with Oversea-Chinese Banking Corporation Ltd, to issue a bank guarantee or stand-by letters of credit in the form of bid bonds, performance bonds or contingent sponsor support guarantees with a total limit of US\$40,000. This facility is fully guaranteed by the Company.

On 19 May 2016, AP signed a banking facility letter with DBS Bank Ltd, to issue a bank guarantee in the form of financial or performance guarantees with a total limit of US\$25,000. This facility is fully guaranteed by the Company.

As at 30 June 2019 and 31 December 2018, the total bank facilities used by AP which were obtained from Oversea-Chinese Banking Corporation Ltd, MUFG Bank Ltd and DBS Bank Ltd amounted to US\$36,296. These facilities were utilised in relation to performance bonds and contingent sponsor support guarantees.

On 19 November 2016, TPI entered into a Banking Facility Agreement with PT Bank DBS Indonesia to issue a bank guarantee in the form of a performance bond to fulfil the requirement of TPI's Power Purchase Agreement ("PPA") with a total limit of Rp45 billion (full amount). The Company acts as the guarantor for the commitment equal to 65% of the total facility.

On 14 July 2017, the Company entered into a banking facility agreement with BRI to issue bank guarantees with a total limit amounting to US\$183,500 in the form of bid bonds, performance bonds, reclamation guarantees and forestry lease-use permit guarantees. This facility can also be used by its subsidiaries. This facility is not bound by any collateral. This agreement has been amended on 1 August 2018 to extend the maturity date to 14 July 2019 with a total limit amounting to US\$146,500. Up to the completion date of these interim consolidated financial statements, this agreement is still in the process of extension.

As at 30 June 2019 and 31 December 2018, the total bank facility from BRI used by the Group amounted to US\$17,329 and US\$7,274, respectively. The facility was used in relation to reclamation guarantees, performance bonds and bid bonds.

The use of certain banking facilities requires the Group to maintain time deposits (Note 5).

d. Sales commitments

As at 30 June 2019 and 31 December 2018, AI and AMC had various commitments to deliver approximately 84 million metric tonnes and 100 million metric tonnes of coal to various buyers, subject to price agreements. The coal will be delivered periodically from 2019 until 2022.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

e. Capital expenditure

As at 30 June 2019 and 31 December 2018, the Group had purchase orders for vessels, mining equipment, hauling road and infrastructure construction amounting to US\$112,997 and US\$169,575, respectively.

f. Levy for use of forestry areas

Based on Government Regulation No. 33 Year 2014 on the Type and Tariff of PNBP from the Use of Forestry Area for the Interest of Development other than Forestry Activities Applicable to the Forestry Ministry, it is stipulated that the use of forestry area for the interest of development other than forestry activities is subject to a PNBP levy for the entire forest area that is leased and used and for the entire forest area for which lease and use agreements are still effective, in accordance with the utilisation criteria, with a tariff ranging from Rp1,600,000/hectare to Rp4,000,000/hectare. This Government Regulation is effective from August 2014 and the Group has recognised this PNBP levy on an accrual basis.

g. Fuel Facilities Agreement

On 11 September 2015, IBT entered into a Fuel Facilities Agreement with Pertamina, whereby Pertamina agreed to operate the facilities within the terminal excluding the shared facilities for the purpose of supplying fuel to AI and third parties. For the use of the facilities, Pertamina agreed to pay a lease fee per barrel of fuel loaded and a port handling fee based on the fuel discharged and loaded. The agreement will expire on 1 October 2022.

On 21 June 2016, in order to increase the fuel volume supplied to third parties, IBT agreed to give a rebate on lease fees per barrel for fuel volumes above the guaranteed annual volume supplied to third parties.

h. Mining Law No. 4/2009

On 16 December 2008, the Indonesian Parliament passed a new Law on Mineral and Coal Mining (the "Law"), which received the assent of the President on 12 January 2009, becoming Law No. 4/2009. The CCA system under which AI and AMC, the Group's subsidiaries, operate, will no longer be available to investors. However, the Law indicates that existing CCAs, such as those held by AI and AMC, will be honoured.

The Law notes that existing CCAs will be honoured until their expiration with the provision that the CCAs must be adjusted in line with Law No. 4/2009 within a period of 1 (one) year. The CCAs of AI and AMC have been amended for the intended adjustments.

In February 2010, the Government released two implementing regulations for Mining Law No. 4/2009, i.e. Government Regulation No. 22/2010 and 23/2010 ("GR No. 22" and "GR No. 23"). GR No. 22 deals with the establishment of the mining areas under the new IUP. GR No. 23 provides clarifications regarding the procedures to obtain the new IUP. GR No. 23 indicates that existing CCAs will be honoured by the Government, although any extension of existing CCAs will take place through the issue of an IUP.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

h. Mining Law No. 4/2009 (continued)

The Government further amended GR No. 23 by issuing, among others, Government Regulation No. 24/2012 on 21 February 2012 ("GR No. 24/2012") and later by issuing Government Regulation No. 1/2014 dated 11 January 2014 ("GR No. 1/2014"), Government Regulation No. 77/2014 dated 14 October 2014 ("GR No. 77/2014"), Government Regulation No. 1/2017 dated 11 January 2017 ("GR No. 1/2017") and Government Regulation No. 8/2018 dated 7 March 2018 ("GR No. 8/2018").

The Group is closely monitoring the progress of the implementing regulations for the Law and will consider the impact on its operations, if any, as these regulations are issued.

i. Ministerial Regulation No. 25/2013

In August 2013, the MoEMR issued Ministerial Regulation No. 25/2013 on the supply, use of and trade in biofuel as an alternative energy source. This regulation requires coal companies to gradually blend biofuel with diesel fuel. The Group is closely monitoring the adoption of this regulation and its impact upon its operations.

j. Ministerial Regulation of Environment and Forestry No. P.89/MENLHK/SETJEN/KUM.1/11/2016

In November 2016, the Ministry of Environment and Forestry ("MoE&F") issued Ministerial Regulation No. P.89/MENLHK/SETJEN/KUM.1/11/2016 on Guidelines for Planting of Borrow to Use Licence ("IPPKH") Holders for the Rehabilitation of Watershed Areas ("Ministerial Regulation of Environment and Forestry No. 89/2016").

This regulation is a guideline for IPPKH holders which are obligated to perform rehabilitation of watershed at a location stipulated in accordance with the provisions set forth in this regulation, and with rehabilitation planting period set before the end of the IPPKH period with procedure of rehabilitation according to the provisions set forth in this rule.

AI and AMC, as the holders of IPPKH have started to fulfil the obligation by planting the rehabilitation of the watershed, therefore, Management believes that the Group has complied with the provisions in the regulation as mentioned above.

k. Ministerial Regulation No. 48/2017

On 3 August 2017, MoEMR issued Ministerial Regulation No. 48/2017 regarding the Control of Enterprises in the Energy and Mineral Resources Sector ("Ministerial Regulation No. 48/2017"). This regulation governs the transfer of shares and changes in the Directors and/or Commissioners. Any transfer of shares or changes in Directors and/or Commissioners of AI, the AMC entities, PCS, SCM and LSA is subject to the prior approval of the MoEMR.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

I. Ministerial Regulation No. 11/2018

On 19 February 2018, MoEMR issued Ministerial Regulation No. 11/2018 concerning Procedures for the Granting of Areas, Licensing and Reporting on Mineral and Coal Mining Activities ("Permen No. 11/2018") revoking the Decree of the Minister of Energy and Mineral Resources No. 1453 K/29/MEM/2000 on Technical Guidelines for the Conduct of Governmental Tasks in the Field of General Mining, Ministerial Regulation No. 12/2011 on Procedure for the Determination of the Mining Areas and Information System of Mineral and Coal Mining Areas, Ministerial Regulation No. 28/2013 on Procedures for Auctioning of Mining Permit Areas and Special Mining Permit Areas, Ministerial Regulation No. 25/2016 on Amendment to Regulation of the Minister of Energy and Mineral Resources No. 12/2011 on Procedures for the Setting of the Mining Areas and Information System of the Determination of Mineral and Coal Mining Areas, Ministerial Regulation No. 15/2017 on Procedures for the Granting of Operation and Production Special Mining Business Permits as a continuation of the Operation of a Contract of Work or Coal Cooperation Agreement, Ministerial Regulation No. 34/2017 on Licensing in the Field of Mineral and Coal Mining, Director General of Mineral and Coal ("DGoMC") Regulation No. 714 K/30/DJB/2014 dated 12 August 2014 on the Procedures and Requirements for Recommendation as a Registered Coal Exporter, and DGoMC Regulation No. 841 K/30/DJB/2015 dated 31 July 2015 on the Procedures and Requirements for Recommendation as Registered Exporter and Approval on Export of Pure Lead Bars.

Ministerial Regulation No. 11/2018 regulates the preparation and determination of Mining Permit Areas ("WIUP") and Special Mining Permit Areas ("WIUPK"), Information System of Mining Areas ("WP"), procedures for granting WIUP and WIUPK, licensing procedures, rights and obligations of Permit holders, and Annual Work Plan and Budget ("RKAB") and reporting requirements.

On 16 April 2018, the MoEMR issued Ministerial Regulation No. 22/2018 regarding the Amendment to the Procedures for the Granting of Areas, Licensing and Reporting in Mineral and Coal Mining Activities, which amends the regulations relating to the preparation and determination of WIUP or WIUPK, the procedure for granting of WIUP and WIUPK, and the rights, obligations and prohibitions for IUP and IUPK holders.

On 19 April 2018, the MoEMR issued Ministerial Decree No. 1796.K/30/MEM/2018 regarding the Guidelines for the Application, Evaluation, and Issuance of Licences in the Mineral and Coal Mining Sector, which among others regulates the guidelines for the implementation of application, evaluation and the issuance of IUPK Operation Production as an extension of an expired Contract of Work or CCA.

On 5 December 2018, the MoEMR issued Ministerial Regulation No. 51/2018 regarding the Second Amendment to Ministerial Regulation No. 11 Year 2018 regarding Procedures for the Granting of Areas, Licensing and Reporting in Mineral and Coal Mining Activities, which amends and adds some provisions regarding preparation and determination of WIUP or WIUPK, the procedures for granting of WIUP and WIUPK, and the rights, obligations and prohibitions for IUP and IUPK holders, and the continuation of CCA operations.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

m. Ministerial Regulation No. 25/2018

On 30 April 2018, the MoEMR issued Ministerial Regulation No. 25/2018 regarding the enterprise of mineral and coal mining ("Ministerial Regulation No. 25/2018") which revokes, among others, Ministerial Regulation No. 34/2009 on the Prioritisation of Supplying Minerals and Coal for Domestic Needs, Ministerial Regulation No. 17/2010 on the Procedure for Setting the Mineral and Coal Benchmark Price, Ministerial Regulation No. 33/2015 on the Procedure for Establishing Boundary Mark for the Area of Mining Business Permit and Special Mining Business Permit for Minerals and Coal and Ministerial Regulation No. 41/2016 on the Development and Empowerment of Communities in Mineral and Coal Mining Activities.

Ministerial Regulation No. 25/2018, which was recently amended through Ministerial Regulation No. 50/2018, regulates the mineral and coal mining business, activities of IUP exploration or IUPK exploration, activities of IUP Operation Production and IUPK Operation Production, financial, non-tax state revenue, mineral and coal data processing, share divestment, manpower recruitment and capital goods procurement, equipment, raw and other supporting material, control of production and sales, mineral and coal price, community development and empowerment, and termination of mineral and coal mining business activity.

On 5 September 2018, the MoEMR issued both Ministerial Decree No. 1952 K/84/MEM/2018 regarding the use of domestic banking or the offshore branch of Indonesian banks for mineral and coal export proceeds and Ministerial Decree No. 1953 K/06/MEM/2018 regarding the use of operation goods, capital goods, equipment, raw and other supporting materials which are domestically produced in the energy and minerals sector.

Management believes that AI, AMC, PCS, SCM and LSA have complied with the requirements of the regulations mentioned above.

n. Ministerial Regulation No. 78 K/30/MEM/2019

On 6 May 2019, the MoEMR issued Ministerial Decree No. 78 K/30/MEM/2019 regarding the Setting of the Minimum Percentage of Coal Sales for Domestic Consumption for the Year 2019 which stipulates the minimum Domestic Market Obligation ("DMO") percentage for the year 2019. The Group is closely monitoring the fulfilment of the DMO requirement.

o. Ministerial Regulation No. 7/2017

On 11 January 2017, the MoEMR issued Ministerial Regulation No. 7/2017, which was recently amended through Ministerial Regulation No. 19/2018, regulating the Procedures for the Setting of Benchmark Prices for Metal Minerals and Coal Sales. The provisions of MoEMR No. 17/2010, relating to benchmark prices for minerals and coal sales are revoked from that date.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

o. Ministerial Regulation No. 7/2017 (continued)

On 9 March 2018, the MoEMR issued Ministerial Decree No. 1395 K/30/MEM/2018, which regulates a coal sales price of US\$70 per metric tonne FOB vessel for supplying coal for electricity provided in the public interest. On 12 March 2018, this Ministerial Decree was amended by Ministerial Decree No. 1410 K/30/MEM/2018 to amend the effective date to become the date of enactment of this Decree up to 31 December 2019 with a maximum sales volume of 100 million metric tonnes annually. The provisions of Ministerial Decree No. 0617 K/32/MEM/2011 on the Benchmark Price for PT Perusahaan Listrik Negara (Persero) ("PLN") for the Operation of Coal Fired Power Plants are therefore revoked from that date.

On 7 August 2018, the MoEMR issued Ministerial Decree No. 1925 K/30/MEM/2018, which amends the Ministerial Decree No. 1395 K/30/MEM/2018 to regulate that IUP-Production Operation holders and Contract of Work holders who have fulfilled the minimum percentage of coal sales for domestic consumption and the requirement of coal sales price will be given the increase of total national production amounted to 100 million tonnes as long as the Group can fulfil the requirements of the technical good mining practices and the environmental obligations.

p. Long-term PPA for the Central Java Coal-Fired Steam Power Plant Independent Power Producer ("IPP") Project in Central Java

The Company, together with Electric Power Development Co Ltd ("JPower") and Itochu Corporation ("Itochu"), formed a consortium - the "JPower-Adaro-Itochu" Consortium - to undertake the project. In July 2011, the Consortium established BPI, in which the Group, through its subsidiary, AP, JPower and Itochu own participating interests of 34%, 34% and 32%, respectively, to build, own, operate and transfer a coal-fired steam power plant.

On 6 October 2011, BPI and PLN signed a long-term PPA. The PPA includes the construction of a coal-fired steam power plant with a total capacity of 2x1,000 MW in Batang Regency, the Province of Central Java (Central Java Power Plant/"CJPP") and a 25-year supply of electricity to PLN. Upon expiration of the PPA term, the CJPP project will be transferred to PLN. In addition to the PPA, a Guarantee Agreement was also signed by the Government represented by the Minister of Finance of the Republic of Indonesia, PT Penjaminan Infrastruktur Indonesia (Persero) and BPI, on 6 October 2011 which in this case, guaranteed PLN's payment obligations for BPI under the PPA. The effective date of the Guarantee Agreement starts from the financing date which is 6 June 2016 and shall be effective until 21 years after the CJPP project Commercial Operation date.

On 6 April 2016, BPI signed an amendment to the PPA which extends the required financing date to 6 June 2016.

On 13 April 2016, BPI and PLN signed Amendment No. 8 to the PPA, which regulates PLN's obligation to acquire the State Reserved Land for the development of the CJPP project including BPI and PLN obligations to enter into a Land Lease Agreement with respect to the Land Law No. 2 of 2012 and Land Utilisation Agreement with respect to the State Reserved Land.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

p. Long-term PPA for the Central Java Coal-Fired Steam Power Plant Independent Power Producer (“IPP”) Project in Central Java (continued)

On 14 April 2016, BPI and PLN signed the Land Lease Agreement with respect to the Land Law No. 2 of 2012 and Land Utilisation Agreement with respect to the State Reserved Land. With the signing of the Land Lease Agreement and the Land Utilisation Agreement, therefore all required land for the development of the CJPP project has been obtained.

The latest amendment to the PPA is Amendment No. 9 to the PPA dated 11 May 2016 with respect to the implementation of Bank Indonesia Regulation No. 17/3/PBI/2015 regarding the Mandatory Use of Rupiah within the Territory of the Republic of Indonesia.

On 6 June 2016, BPI has achieved the Financing Date as required by the PPA.

q. Long-term PPA for the South Kalimantan Coal-Fired Steam IPP

The Company, together with Korea East-West Power Co, Ltd, formed a consortium with participation interests of 65% and 35%, respectively. On 12 August 2013, the Consortium established TPI to build, own, operate and transfer a coal-fired steam power plant.

On 15 October 2014, TPI and PLN signed a long-term PPA. The PPA contemplates, among others, the engineering, construction, ownership, and operation of a coal-fired power plant with a total capacity of 2x100 MW in the Province of South Kalimantan (South Kalimantan Power Plant/“SKPP”) and a 25-year supply of electricity to PLN. Upon the expiration of the PPA term, the SKPP project will be transferred to PLN. This project is included in the Fast Track Program Project phase 2 (FTP-2), with the Build, Own, Operate and Transfer (“BOOT”) scheme. This Project obtained support from the Government, represented by the Minister of Finance of the Republic of Indonesia (“MoF”) in the form of a Business Viability Guarantee Letter (“BVGL”) dated 3 January 2017. The project is currently in the construction stage.

On 18 November 2016, TPI and PLN signed Amendment No. 1 to the PPA concerning the invoicing and payment procedures and the form of PLN consent letter.

On 24 January 2017, TPI has achieved the financing date as required by the PPA.

r. Subordinated Term Loan Facility Agreement

On 3 June 2016, BPI entered into a US\$817,027 Subordinated Term Loan Facility Agreement with various financial institutions which will expire 5 years after the date of the agreement. The Company acts as the guarantor for a commitment equal to 34% of the total facility. Based on the agreement, BPI is required to enter into an interest rate hedging arrangement. Therefore, on 3 June 2016, BPI entered into an interest rate hedging agreement with various financial institutions, to hedge 90% of the interest rate exposure in respect of the total outstanding loan facility. As at 30 June 2019, this facility has been fully drawdown.

s. Convertible loan and shares subscription agreement and option agreement

On 28 May 2012, ATA entered into a Convertible Loan and Shares Subscription Agreement with BEP, PT Persada Capital Investama (“PCI”), PT Triputra Investindo Arya (“TIA”), PT Arya Citra International, PT Bara Murau Coal, PT Millenium Capital Investment, Arieska Lianawati Konar Suhananto (“Arieska”), Andrianto Oetomo (“Andrianto”) and Arianto Oetomo (“Arianto”) (“Convertible Loan Agreement”).

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

s. Convertible loan and shares subscription agreement and option agreement (continued)

ATA has the option to provide loans to BEP with a maximum facility of US\$500,000 which will mature on 28 May 2021. By lending to BEP, ATA has the right to convert the loan into up to 51% of BEP's issued and outstanding shares plus shares to be issued by BEP. By entering into the Convertible Loan Agreement, ATA is able to appoint the majority of BEP's Board of Directors and to govern its financial policies as well as to control BEP's operations. As a result, the Group has consolidated BEP.

On the same date, ATA entered into an Option Agreement with BEP, PCI, TIA, Arieska, Andrianto and Arianto ("Option Agreement"). ATA has the right to purchase shares in BEP owned by TIA, PCI, Arieska, Andrianto and Arianto, which represent a total ownership of 79.8%, until 28 May 2021. The proceeds from the purchase of the shares owned by TIA, PCI, Arieska, Andrianto and Arianto in BEP will be used to subscribe for new shares in the Company up to a maximum of 2,381,729,663 shares.

ATA has the option to execute either one of the agreements mentioned above.

At the date of these interim consolidated financial statements neither of the above rights have been executed.

t. US\$134,238 Post-FC Guaranteed Bridge Facility Agreement

On 24 November 2016, TPI entered into a US\$134,238 Post-FC Guaranteed Bridge Facility Agreement with various financial institutions. The Company acts as the guarantor for a total commitment equal to 65% of the facility. Based on the agreement, TPI is required to enter into an interest rate swap arrangement. Therefore, on 24 November 2016, TPI signed an interest rate swap agreement with various financial institutions, to hedge 75% of the interest rate exposure in respect of the total outstanding loan facility. This facility has been fully paid on 4 April 2019.

u. Legal proceedings

Arbitration process of JPI-WIKA and FLS in relation to the overburden crushing and conveying system

To support AI in increasing its coal production capacity, an overburden crushing and conveying system ("OPCC") has been developed for transportation of overburden. For the OPCC project, on 25 March 2011, AI entered into an OPCC equipment supply and offshore services contract with FLSmidth Spokane, Inc. (subsequently known as FLSmidth USA Inc.) ("FLS") with a total contract amount of US\$92,003, and a construction contract with PT Wijaya Karya (Persero) Tbk ("WIKa") with a total contract amount of US\$83,870, with both contracts subsequently novated by AI to JPI on 10 November 2011.

On 29 November 2016, JPI filed two Notices of Arbitration against WIKa and FLS separately.

WIKa commenced two arbitrations against FLS and PT FLSmidth Indonesia on 6 March 2017 and against JPI and FLS jointly on 27 June 2017.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

u. Legal proceedings (continued)

Arbitration process of JPI-WIKA and FLS in relation to the overburden crushing and conveying system (continued)

On 29 March 2018, the parties entered into a full and final settlement agreement for all claims in relation to the OPCC. All ongoing arbitration proceedings have been discontinued with no order of any kind including as to costs.

Arbitration process of MSW-PTPLI and PLPL

PT Punj Lloyd Indonesia ("PTPLI") and Punj Lloyd Pte Ltd ("PLPL") commenced arbitration proceedings against MSW on 3 September 2014 in accordance with the rules of the Singapore International Arbitration Centre ("SIAC Rules") pursuant to the contracts entered into by MSW and PTPLI and/or PLPL in relation to the construction of MSW's coal-fired power plant with a capacity of 2x30 MW located at Tanjung, South Kalimantan, with an initial claim amount of €18,790,442 (full amount). The arbitration proceedings were consolidated.

The Final Award was issued by the arbitration tribunal ("Tribunal") on 16 April 2018. The Tribunal found in MSW's favour on most aspects of this arbitration, awarding MSW the amounts of €8,238,780 (full amount), Rp40,189,644 (full amount), US\$859 (full amount) and S\$1,974,335 (full amount) including costs. The Tribunal also dismissed the entirety of PTPLI's and PLPL's counterclaims and terminated the arbitration between MSW and PLPL on grounds that PLPL had been wound up.

Up to the issuance date of these interim consolidated financial statements, MSW is in the process of obtaining the enforcement of the Final Award.

Legal case between MIP with PT Bukit Asam (Persero) Tbk ("PTBA")

During 2018, PTBA filed a claim against MIP, claiming that MIP is conducting mining activities in part of the Mining Rights area held by PTBA. The claim amounts to Rp5 trillion (full amount). In this claim, the Company and ATA have been named as Co-defendant I and Co-defendant II, respectively. On 28 January 2019, the case was decided by the District Court of Lahat which declared that the Plaintiff's claim could not be accepted. The Plaintiff further appealed the decision to the High Court of Palembang, but on 8 March 2019, the appeal was revoked by the Plaintiff, therefore the decision of the District Court of Lahat is legally binding.

Other legal proceedings

From time to time, the Group is involved in various legal proceedings as a normal consequence of the Group's business. The Group is of the opinion that adverse decisions in any pending or threatened proceedings, or that any amounts it may be required to pay by reason thereof, will not have a material adverse effect on its financial condition or the consolidated results of operations.

v. Uncommitted Multi-Currency Revolving Term Loan Facility Agreement

In December 2017, ACL and CTI entered into Uncommitted Multi-Currency Revolving Term Loan Facility Agreements of US\$100,000 and US\$50,000, respectively, with DBS Bank Ltd. Loan facility for ACL will be used to invest in marketable securities while loan facility for CTI will be used for working capital. The Company acts as the guarantor of these loan facilities. As at 30 June 2019, ACL and CTI had not yet drawdown these loans.

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37. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

w. Overlapping land plots of PT Bhakti Energi Persada and its subsidiaries

PT Bhakti Energi Persada and subsidiaries ("BEP Group") have been granted mining permits in Muara Wahau, East Kutai, East Kalimantan (the "Concession Area"). Part of the Concession Area currently overlaps with the plantation business permit held by PT Dharma Satya Nusantara and its subsidiaries (the "Plantation Companies") ("Overlap Area"). As at 30 June 2019, BEP Group and the Plantation Companies have reached agreements for a portion of the Overlap Area and BEP Group has paid the first instalment related to the settlement. The remaining instalments will be paid subject to fulfilment of certain conditions. The remaining Overlap Areas are still in the process of discussion.

x. US\$70,125 Replacement Guaranteed Bridge Facility Agreement

On 27 March 2019, TPI entered into a US\$70,125 Replacement Guaranteed Bridge Facility Agreement with various financial institutions. The Company acts as the guarantor for a commitment equal to 65% of the total facility. As at 30 June 2019, TPI had drawdown US\$68,659 of the facility.

y. Loan Agreement with PT Trada Alam Minera Tbk ("TRAM")

On 5 July 2019, ACL entered into a Loan Agreement of US\$100,000 with TRAM. This loan bears interest at a certain percentage and will be due in 48 months from the first Utilisation Date to occur hereunder. At the date of these interim consolidated financial statements, this loan has been fully drawdown by TRAM.

z. Logistic and Infrastructure Agreement

On 5 July 2019, ATA and TRAM has signed a Logistic and Infrastructure Agreement in developing mining logistics and infrastructure located in Kalimantan. This agreement will also include a conditional transfer of PC's majority shares from ATA to TRAM.

38. RECLAMATION GUARANTEES AND MINE CLOSURE

On 20 December 2010, the Government released an implementing regulation for Mining Law No. 4/2009, i.e. GR No. 78 that deals with reclamation and post-mining activities for both IUP-Exploration and IUP-Production Operation holders.

An IUP-Exploration holder, among other requirements, must include a reclamation plan in its exploration work plan and budget and provide a reclamation guarantee in the form of a time deposit placed at a state-owned bank.

An IUP-Production Operation holder, among other requirements, must (1) prepare a five-year reclamation plan; (2) prepare a post-mining plan; (3) provide a reclamation guarantee which may be in the form of a joint account or time deposit placed at a state-owned bank, a bank guarantee, or an accounting provision (if it meets the requirements); and (4) provide a post-mine guarantee in the form of a time deposit at a state-owned bank.

The requirement to provide a reclamation guarantee and a post-mining guarantee does not release the IUP holder from the requirement to perform reclamation and post-mining activities.

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38. RECLAMATION GUARANTEES AND MINE CLOSURE (continued)

On 3 May 2018, the MoEMR issued Ministerial Regulation No. 26/2018 ("Permen ESDM 26/2018") regarding proper mining principles and supervision in mineral and coal mining activities, and on 7 May 2018, the MoEMR issued Ministerial Decree No. 1827 K/30/MEM/2018 ("Kepmen ESDM") regarding guidelines for proper mining techniques and principles. As of the effective date of these regulations, Ministerial Regulation No. 07/2014 regarding mine reclamation and post-mining activities in mineral and coal mining activities was revoked and is no longer valid.

Kepmen ESDM No. 1827 K/30/MEM/2018 states that a company is required to provide mine reclamation and post-mining guarantees which may be in the form of a time deposit, bank guarantee or accounting reserve, all of which have a duration corresponding to the reclamation schedule.

The below table sets out reclamation guarantees that are required and have been placed by the Group as at 30 June 2019 and 31 December 2018:

Entity	Decree		Period	Placed amount		Form
	Number	Date		30 June 2019	31 December 2018	
In Rupiah (full amount)						
AI	467/30/DJB/2013 629/30/DJB/2013 968/37.03/DBT/2014 674/30/DJB/2014 1178/30/DJB/2015 755/30/DJB/2016 1153/30/DJB/2017 2776/30/DJB/2017 576/37.06/DJB/2018 666/37.06/DJB/2019	19 March 2013 12 April 2013 23 April 2014 25 April 2014 27 July 2015 27 May 2016 31 May 2017 29 December 2017 21 March 2018 27 February 2019	2013-2017 2018-2022 2019-2022	Rp129,570,426,334	Rp79,760,863,706	Performance bonds
MIP	540/625/Pertamb/ 2014	30 June 2014	2014-2018	Rp1,502,688,591	Rp1,502,688,591	Joint time deposits at a state-owned bank
BEE	540/2626/ Dispertamben/2016	13 September 2016	2016-2017 2018-2019	Rp319,735,106 Rp3,406,242,484*	Rp319,735,106 Rp1,531,932,988	Joint time deposits at a state-owned bank Bank guarantee
KC	935/30/DJB/2015 1049/37.06/DJB.2018	26 June 2015 25 June 2018	2015-2016 2018-2019	Rp1,541,603,492	Rp1,541,603,492	Time deposits
SBC	938/30/DJB/2015 1046/37.06/DJB2018	26 June 2015 25 June 2018	2015-2016 2019-2021	Rp406,613,227 Rp1,171,243,900	Rp406,613,227	Time deposits
JC	1048/37.06/DJB.2018	25 June 2018	2018-2020	Rp4,278,503,600	Rp4,278,503,600	Time deposits
PC	1051/37.06/DJB/2018	25 June 2018	2019-2020	Rp1,490,541,900	-	Time deposits
RC	1047/37.06/DJB/2018	25 June 2018	2019-2020	Rp645,317,500	-	Time deposits
SCM	1641/30/DJB/2016 2588/30/DJB/2017 1983/37.06/DJB/2018 2309/37.06/DJB/2018	17 November 2016 30 November 2017 23 November 2018 21 December 2018	2014-2018 2017-2018 2014-2017 2018	Rp8,624,335,262 Rp3,835,439,447	Rp8,624,335,262	Performance bonds
LSA	1622/30/DJB/2016 2583/30/DJB/2017 1913/37.06/DJB/2018	24 November 2016 30 November 2017 14 November 2018	2016-2020 2017-2020 2016, 2018- 2020	Rp11,406,702,188	Rp11,406,702,188	Performance bonds
PCS	1640/30/DJB/2016 1240/37.06/DJB/2018	17 November 2016 27 July 2018	2018-2022 2018-2022	Rp19,959,493,876	Rp19,959,493,876	Performance bonds
BEP	540/818.1/Distamben- PU/IX/2014 540/820/Distamben- PU/IX/2014 540/821.1/Distamben- PU/IX/2014 540/822.1/Distamben- PU/IX/2014 540/830/Distamben- PU/IX/2014 540/831/Distamben- PU/IX/2014 540/831.1/Distamben- PU/IX/2014	8 September 2014 8 September 2014 9 September 2014 9 September 2014 10 September 2014 10 September 2014 10 September 2014	2015-2019	Rp4,628,097,982	Rp4,628,097,982	Performance bonds

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS**
30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

38. RECLAMATION GUARANTEES AND MINE CLOSURE (continued)

The below table sets out reclamation guarantees that are required and have been placed by the Group as at 30 June 2019 and 31 December 2018: (continued)

Entity	Decree		Period	Placed amount		Form
	Number	Date		30 June 2019	31 December 2018	
In thousands of US Dollars						
LC	343/30/DJB/2015 658/30/DJB/2017 1651/30/DJB/2017 2609/30/DJB/2017	4 March 2015 23 March 2017 21 August 2017 6 December 2017	2014-2017 2018-2021	US\$2,824	US\$2,342	Performance bonds
MC	2755/30/DJB/2017	28 December 2017	2017-2021	US\$11,098	US\$6,181	Performance bonds
PC	CCA article 7	-	-	US\$100	US\$100	Time deposits
SBC	CCA article 7	-	-	US\$100	US\$100	Time deposits

* Placement on 18 July 2019 amounted to Rp1,874,309,496

The below table sets out post-mining guarantees that are required and have been placed by the Group as at 30 June 2019 and 31 December 2018:

Entity	Decree		Period	Placed amount		Form
	Number	Date		30 June 2019	31 December 2018	
In Rupiah (full amount)						
MIP	540/042/Pertamb/ 2010	2 June 2010	2012-2036	Rp10,862,169,477	Rp10,862,169,477	Joint time deposits at a state-owned bank
BEE	545/1181/Tamben-II/ 2011	22 November 2011	2014-2038	Rp3,141,829,661	Rp3,141,829,661	Joint time deposits at a state-owned bank
In thousands of US Dollars						
LC	825/30/DJB/2016	8 June 2016	2016-2018	US\$4,901	US\$4,901	Time deposits
AI	279/30/DJB/2013	14 February 2013	2014-2019	US\$17,699	US\$9,311 US\$8,388*	Time deposits

* Placement in January 2019

39. FINANCIAL ASSETS AND LIABILITIES

As at 30 June 2019, the Group classified its cash and cash equivalents, trade receivables, other receivables, restricted time deposits, other current assets and other non-current assets amounting to US\$1,358,027 (31 December 2018: US\$1,347,774) as loans and receivables and available-for-sale financial assets amounting to US\$87,588 (31 December 2018: US\$104,044).

As at 30 June 2019, the Group classified its trade payables, dividends payable, accrued expenses, loans from a third party, other liabilities, finance lease payables and bank loans amounting to US\$1,747,730 (31 December 2018: US\$1,915,365) as financial liabilities carried at amortised cost.

As at 30 June 2019, the Group classified its derivative liabilities amounting to US\$15,236 (31 December 2018: US\$20,112) as derivative financial instruments - cash flow hedges.

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS**

30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

40. FINANCIAL RISK MANAGEMENT

The Group's activities are exposed to a variety of financial risks: market risk (including the effects of foreign currency exchange rate risk, commodity price risk and interest rate risk), credit risk and liquidity risk. The objectives of the Group's risk management processes are to identify, measure, monitor and manage key risks in order to safeguard the Group's long-term business continuity and to minimise potential adverse effects on the financial performance of the Group.

The Group uses various methods to measure risk to which it is exposed. These methods include sensitivity analysis in the case of interest rates, foreign exchange and other price risks and aging analysis for credit risk.

(1) Financial risk factors

a. Market risk

(i) Foreign exchange risk

The financing and the majority of the revenue and operating expenditure of the operating subsidiaries of the Company are denominated in US Dollars, which indirectly represents a natural hedge on exposure to fluctuations in foreign exchange rates. However, the Group is exposed to foreign exchange risk arising from dividend payments to the shareholders and other operating expenses in Rupiah.

Management has set up a policy to require companies within the Group to manage their foreign exchange risk against their functional currency. As at 30 June 2019, if the Rupiah had weakened/strengthened by 10% against the US Dollar with all other variables held constant, the post-tax profit for the period would have been US\$2,176 lower or US\$2,725 higher (31 December 2018: US\$6,733 lower or US\$8,432 higher), respectively, mainly as a result of foreign exchange gains/losses on the translation of cash and cash equivalents, restricted time deposits, trade receivables, trade payables and accrued expenses.

(ii) Price risk

The Group's financial assets and liabilities are not significantly exposed to market risks related to the price volatility of commodity prices traded on world coal markets because the settlement of financial assets and liabilities is based on the prices stipulated in the coal sales and purchase agreements which will be determined at the time of delivery.

The Group is exposed to security price risk from investments which are available-for-sale and carried at fair value.

To manage price risk arising from investments in debt securities, the Group performs an analysis of the coupon rates offered on bonds and the required rate of return which is generally expected by the market. The performance of the Group's available-for-sale investments are monitored periodically.

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS**

30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

40. FINANCIAL RISK MANAGEMENT (continued)

(1) Financial risk factors (continued)

a. Market risk (continued)

(ii) Price risk (continued)

As at 30 June 2019, if the price of available-for-sale financial assets had been 5% higher/lower with all other variables held constant, total equity would have increased or decreased by US\$4,379 (31 December 2018: US\$5,202).

As at 30 June 2019, the Group has derivative financial instruments to partly hedge against the fluctuations in fuel prices on its expected future fuel consumption based on its fixed price coal commitment. There were no other financial assets or liabilities with carrying amounts directly linked to market commodity prices or commodity derivative contracts.

(iii) Interest rate risk

The Group's interest rate risk arises from long-term borrowing denominated in US Dollars. The interest rate risk on cash is not significant and all other financial instruments are not interest bearing. Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group has managed this risk by entering into interest rate swap agreements on a portion of its debt to reduce the impact of changes in interest rates on its floating rate debt (Note 18).

The Group analyses its interest rate exposure on a dynamic basis. Various scenarios are simulated taking into consideration the refinancing of existing positions, and alternative financing. Based on the above scenarios, the Group manages its cash flows interest rate risk by refinancing borrowings at a lower interest rate.

As at 30 June 2019, if interest rates on long-term borrowings had been 10 basis points higher/lower with all other variables held constant, the post-tax profit for the year would have been US\$428 (31 December 2018: US\$907) lower/higher.

b. Credit risk

As at 30 June 2019, the total maximum exposure from credit risk was US\$1,445,537 (31 December 2018: US\$1,451,752). Credit risk arises from cash in banks, restricted time deposits, available-for-sale financial assets, trade receivables, other receivables, restricted time deposits, other current assets and other non-current assets.

All the cash in banks, time deposits and restricted time deposits are placed in reputable foreign and local banks.

**NOTES TO THE INTERIM CONSOLIDATED
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30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

40. FINANCIAL RISK MANAGEMENT (continued)
(1) Financial risk factors (continued)
b. Credit risk (continued)

The Group manages credit risk exposure from its available-for-sale financial assets by monitoring the reputation and credit ratings of each individual counterparty. The credit quality of available-for-sale financial assets in listed securities can be assessed by reference to external credit ratings as follows:

	30 June 2019	31 December 2018
Counterparties with external credit ratings (Fitch and Moody's): BBB / Baa2	<u>59,239</u>	<u>89,147</u>

As at 30 June 2019 and 31 December 2018, the balances outstanding from trade receivables, other receivables and other non-current assets were as follows:

	30 June 2019			
	Neither past due nor impaired	Past due but not impaired	Past due and impaired	Total
Trade receivables	356,482	49,697	-	406,179
Other receivables	2,690	-	-	2,690
Other non-current assets	-	-	20,000	20,000
Total	<u>359,172</u>	<u>49,697</u>	<u>20,000</u>	<u>428,869</u>

	31 December 2018			
	Neither past due nor impaired	Past due but not impaired	Past due and impaired	Total
Trade receivables	354,560	16,334	-	370,894
Other receivables	6,036	-	-	6,036
Other non-current assets	-	-	20,000	20,000
Total	<u>360,596</u>	<u>16,334</u>	<u>20,000</u>	<u>396,930</u>

As at 30 June 2019 and 31 December 2018, the Group did not provide any provision for impairment losses of receivables due to the Group's management believes that the receivables will be fully collected.

The entire outstanding balances from trade receivables and other receivables are mostly derived from customers/third parties/related parties which have transacted with the Group for more than 12 months and do not have any history of default.

Management is confident in its ability to continue to control and maintain minimal exposure to credit risk, since the Group has clear policies on the selection of customers, legally binding agreements in place for coal sales, mining services and other services rendered, and historically low levels of bad debts.

**NOTES TO THE INTERIM CONSOLIDATED
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30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

40. FINANCIAL RISK MANAGEMENT (continued)
(1) Financial risk factors (continued)
b. Credit risk (continued)

The Group's general policies for coal sales and rendering services to new and existing customers are as follows:

- selecting customers (mostly blue chip power plant companies) with strong financial condition and good reputations.
- acceptance of new customers and sales of coal and rendering services being approved by the authorised personnel according to the Group's delegation of authority policy.
- requesting payments by letter of credit for new customers.

As at 30 June 2019 and 31 December 2018, one party had an outstanding balance of 11% from the total receivables.

c. Liquidity risk

Liquidity risk is defined as a risk that arises in situations where the cash inflow from short-term revenue is not enough to cover the cash outflow of short-term expenditure. To manage its liquidity risk, the Group monitors its level of cash and cash equivalents, and maintains these at a level deemed adequate to finance the Group's operational activities and to mitigate the effect of fluctuations in cash flow. The Group's management also regularly monitors projected and actual cash flow, including loan maturity profiles and continuously assesses the financial markets for opportunities to raise funds. In addition, the Group has a stand-by loan facility which can be drawn upon request to fund its operations as and when needed.

The table below analyses the Group's financial liabilities at the reporting date into relevant maturity groupings based on the remaining period to the contractual maturity date. The amounts disclosed in the table represent contractual undiscounted cash flows including estimated interest payments:

	Less than three months	More than three months and not later than one year	More than one year and not later than five years	More than five years	Total
30 June 2019					
Financial liabilities					
Trade payables	328,445	-	-	-	328,445
Accrued expenses	63,749	-	-	-	63,749
Other liabilities	10,247	-	-	-	10,247
Loans from a third party	195	580	13,563	-	14,338
Finance lease payables	12,615	36,863	140,776	-	190,254
Bank loans	61,236	357,370	836,298	1,445	1,256,349
Derivative financial instruments	1,877	6,563	6,796	-	15,236
Total	478,364	401,376	997,433	1,445	1,878,618
31 December 2018					
Financial liabilities					
Trade payables	341,766	-	-	-	341,766
Dividends payable	83,773	-	-	-	83,773
Accrued expenses	52,207	-	-	-	52,207
Other liabilities	6,296	-	-	-	6,296
Loans from a third party	207	632	13,993	-	14,832
Finance lease payables	11,720	32,313	135,326	-	179,359
Bank loans	61,369	186,048	1,148,011	1,843	1,397,271
Derivative financial instruments	4,664	12,926	2,522	-	20,112
Total	562,002	231,919	1,299,852	1,843	2,095,616

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS**
30 JUNE 2019 AND 31 DECEMBER 2018

(Expressed in thousands of US Dollars, unless otherwise stated)

40. FINANCIAL RISK MANAGEMENT (continued)
(2) Fair value estimation

The fair value of financial assets and liabilities is estimated for recognition and measurement or for disclosure purposes.

The fair value is the amount for which an asset could be exchanged or a liability settled between knowledgeable and willing parties in an arm's length transaction.

SFAS No. 68, "Fair value measurement", requires disclosure of fair value measurements through the following fair value measurement hierarchy:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2); and
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

The table below describes the carrying amount and fair value of the financial liabilities that are not presented by the Group at fair value:

	<u>Carrying amount</u>	<u>Fair value</u>
30 June 2019		
Finance lease payables	173,087	170,867
31 December 2018		
Finance lease payables	162,693	158,757

The fair value of finance lease payables is measured using discounted cash flows based on the interest rate of the latest finance lease payable entered into by the Group. Bank loans and loans from a third party are liabilities with floating interest rates, thus the carrying amount of the financial liabilities approximate their fair value. Fair value disclosure of finance lease payables is calculated using Level 2 inputs.

As at 30 June 2019, the fair value of available-for-sale financial assets are measured using Level 1 and Level 3 of the fair value hierarchy.

As at 30 June 2019 and 31 December 2018, the derivative financial instruments are measured using a Level 2 method. The fair value is measured as the present value of the estimated future cash flows based on observable yield curves.

The carrying amounts of other financial assets and liabilities approximate their fair value due to the short-term nature of the financial instruments.

For the six-month periods ended 30 June 2019 and 2018, there were no transfers between levels.

**NOTES TO THE INTERIM CONSOLIDATED
FINANCIAL STATEMENTS****30 JUNE 2019 AND 31 DECEMBER 2018**

(Expressed in thousands of US Dollars, unless otherwise stated)

40. FINANCIAL RISK MANAGEMENT (continued)**(3) Capital risk management**

In managing its capital, the Group safeguards its ability to continue as a going concern and to maximise benefits to the shareholders and other stakeholders.

The Group actively and regularly reviews and manages its capital to ensure the optimal capital structure and return to the shareholders, taking into consideration the efficiency of capital use based on operating cash flows and capital expenditure and also consideration of future capital needs.

The Group also seeks to maintain a balance between its the level of borrowing and the equity position in order to ensure the optimal capital structure and return. There were no changes in the Group's approach to capital management during the year.

41. EVENT AFTER REPORTING PERIOD**Banking facility**

On 19 September 2019, AI entered into a foreign exchange facility agreement with PT Bank UOB Indonesia. The facility is provided with a total limit amounting to US\$50,000. This facility is not bound by any collateral. The agreement is valid until 18 September 2020.

42. AUTHORISATION OF THE INTERIM CONSOLIDATED FINANCIAL STATEMENTS

These interim consolidated financial statements were authorised for issue in accordance with a resolution of the Board of Directors of the Company on 11 October 2019.

PT ADARO ENERGY Tbk AND ITS SUBSIDIARIES
CONSOLIDATED FINANCIAL STATEMENTS
31 DECEMBER 2018, 2017 AND 2016

**BOARD OF DIRECTORS' STATEMENT REGARDING
THE RESPONSIBILITY FOR THE CONSOLIDATED FINANCIAL
STATEMENTS AS AT AND FOR THE YEAR ENDED
31 DECEMBER 2018, 2017 AND 2016
PT ADARO ENERGY Tbk AND ITS SUBSIDIARIES**

In accordance with a resolution of the Board of Directors of PT Adaro Energy Tbk and on behalf of the Board of Directors, we, the undersigned:

1. Name : Garibaldi Thohir
Office Address : Menara Karya Lt. 23,
Jl. H.R. Rasuna Said
Blok X-5 Kav. 1 - 2, Jakarta
Address of Domicile : GD. Peluru Blok E/139
Tebet, Jakarta Selatan
Telephone : +62 21 5211265
Position : President Director
2. Name : Christian Ariano Rachmat
Office Address : Menara Karya Lt. 23,
Jl. H.R. Rasuna Said
Blok X-5 Kav. 1 - 2, Jakarta
Address of Domicile : Jl. Patra Kuningan I LI/10-11
Kuningan Timur, Setiabudi
Jakarta Selatan
Telephone : +62 21 5211265
Position : Vice President Director

declare that:

1. The Board of Directors is responsible for the preparation and presentation of the consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries (the "Group");
2. The Group's consolidated financial statements have been prepared and presented in accordance with Indonesian Financial Accounting Standards;
3. a. All information has been fully and correctly disclosed in the Group's consolidated financial statements;
b. The Group's consolidated financial statements do not contain false material information or facts, nor do they omit material information or facts; and
4. The Board of Directors is responsible for the Group's internal control systems.

This statement is made truthfully.

For and on behalf of the Board of Directors.



Garibaldi Thohir
President Director



Christian Ariano Rachmat
Vice President Director

JAKARTA
11 October 2019

PT Adaro Energy, Tbk.
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**INDEPENDENT AUDITORS' REPORT
TO THE SHAREHOLDERS OF
PT ADARO ENERGY Tbk**

We have audited the accompanying consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries, which comprise the consolidated statements of financial position as at 31 December 2018, 2017 and 2016, and the consolidated statements of profit or loss and other comprehensive income, statements of changes in equity and statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Indonesian Financial Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audits in accordance with Standards on Auditing established by the Indonesian Institute of Certified Public Accountants. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial positions of PT Adaro Energy Tbk and its subsidiaries as at 31 December 2018, 2017 and 2016, and their consolidated financial performance and cash flows for the years then ended, in accordance with Indonesian Financial Accounting Standards.

Kantor Akuntan Publik Tanudiredja, Wibisana, Rintis & Rekan

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Nomor Izin Usaha: KEP-241/KM.1/2015.

A191011001/DC2/DKO/2019

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Other Matter

Prior to this report, we have issued independent auditors' report No. 00174/2.1025/AU.1/02/1130-2/1/II/2019 dated 28 February 2019, No. A180228021/DC2/DKO/2018 dated 28 February 2018 and No. A170227009/DC2/HSH/2017 dated 27 February 2017 on the consolidated financial statements of PT Adaro Energy Tbk and its subsidiaries for the years ended 31 December 2018, 2017 and 2016, respectively with unqualified opinions. This report has been prepared solely for inclusion in the offering document in connection with the proposed offering of debt securities of PT Adaro Indonesia, and is not intended to be, and should not be, used for any other purposes.

JAKARTA
11 October 2019

A handwritten signature in blue ink that reads "Daniel Kohar".

Daniel Kohar, S.E., CPA
License of Public Accountant No. AP.1130

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**AS AT 31 DECEMBER 2018, 2017 AND 2016**

(Expressed in thousands of US Dollars, except for par value and share data)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	5	927,896	1,206,848	1,076,948
Restricted time deposits - current portion	6	32	34	34
Available-for-sale financial assets - current portion	7	89,147	247,007	-
Trade receivables	8	370,894	314,718	300,689
Inventories	10	112,005	85,466	73,417
Prepaid taxes - current portion	34a	72,295	74,140	102,614
Recoverable taxes	34b	8,804	12,464	10,489
Other receivables		6,036	6,729	4,399
Derivative financial instruments - current portion	19	-	3,300	3,954
Advances and prepayments - current portion	9	12,488	28,034	19,287
Other current assets		697	422	884
Total current assets		<u>1,600,294</u>	<u>1,979,162</u>	<u>1,592,715</u>
NON-CURRENT ASSETS				
Restricted time deposits - non-current portion	6	15,637	8,106	3,084
Available-for-sale financial assets - non-current portion	7	14,897	6,837	-
Investments in joint ventures	12	576,888	45,810	46,675
Advances and prepayments - non-current portion	9	56,521	38,033	37,497
Prepaid taxes - non-current portion	34a	33,515	43,542	37,940
Mining properties	13	2,296,723	2,355,258	2,436,565
Fixed assets	11	1,609,701	1,506,553	1,544,187
Goodwill	14	793,610	793,610	793,610
Deferred tax assets	34e	27,336	8,766	3,766
Other non-current assets		35,633	28,470	26,218
Total non-current assets		<u>5,460,461</u>	<u>4,834,985</u>	<u>4,929,542</u>
TOTAL ASSETS		<u>7,060,755</u>	<u>6,814,147</u>	<u>6,522,257</u>

The accompanying notes to the consolidated financial statements form an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**AS AT 31 DECEMBER 2018, 2017 AND 2016**

(Expressed in thousands of US Dollars, except for par value and share data)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
LIABILITIES AND EQUITY				
LIABILITIES				
CURRENT LIABILITIES				
Trade payables	15	341,766	279,163	207,794
Dividends payable	28	83,773	111,832	70,927
Accrued expenses	17	52,207	37,396	28,969
Short-term employee benefits liabilities		3,272	2,689	1,551
Taxes payable	34c	82,948	56,713	118,981
Royalties payable	16	8,516	31,269	42,041
Current maturity of long-term borrowings:				
- Finance lease payables	20	37,404	35,571	30,876
- Bank loans	21	182,671	201,160	122,850
Derivative financial instruments - current portion	19	17,590	-	-
Other liabilities		6,296	17,509	20,566
Total current liabilities		816,443	773,302	644,555
NON-CURRENT LIABILITIES				
Loans from a third party	18	13,432	15,892	15,541
Long-term borrowings, net of current maturities:				
- Finance lease payables	20	125,289	49,594	39,224
- Bank loans	21	1,072,527	1,090,830	1,241,198
Derivative financial instruments - non-current portion	19	2,522	-	-
Deferred tax liabilities	34e	539,503	612,253	653,364
Post-employment benefits liabilities	22	63,247	64,925	49,527
Provision for mine rehabilitation, reclamation and closure	23	125,100	115,724	92,966
Total non-current liabilities		1,941,620	1,949,218	2,091,820
TOTAL LIABILITIES		2,758,063	2,722,520	2,736,375
EQUITY				
Equity attributable to owners of the parent entity				
Share capital - authorised 80,000,000,000 shares; issued and fully paid 31,985,962,000 shares at par value of Rp100 per share	24	342,940	342,940	342,940
Additional paid-in capital, net	25	1,154,494	1,154,494	1,154,494
Difference in value from transactions with non-controlling interests	26	532	4,072	7,135
Retained earnings	27	2,161,277	1,966,721	1,627,609
Other comprehensive (loss)/income	2h, 2i	(8,844)	43	14,280
Total equity attributable to owners of the parent entity		3,650,399	3,468,270	3,146,458
Non-controlling interests	29	652,293	623,357	639,424
TOTAL EQUITY		4,302,692	4,091,627	3,785,882
TOTAL LIABILITIES AND EQUITY		7,060,755	6,814,147	6,522,257

The accompanying notes to the consolidated financial statements form an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF PROFIT OR LOSS
AND OTHER COMPREHENSIVE INCOME
FOR THE YEARS ENDED 31 DECEMBER 2018, 2017 AND 2016**

(Expressed in thousands of US Dollars, except for basic and diluted earnings per share)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Revenue	30	3,619,751	3,258,333	2,524,239
Cost of revenue	31	<u>(2,409,544)</u>	<u>(2,116,831)</u>	<u>(1,838,963)</u>
Gross profit		1,210,207	1,141,502	685,276
Operating expenses	32	(193,998)	(183,651)	(151,175)
Other (expenses)/income, net	33	<u>(124,297)</u>	<u>(6,026)</u>	<u>53,517</u>
Operating income		<u>891,912</u>	<u>951,825</u>	<u>587,618</u>
Finance costs		(65,084)	(52,994)	(50,006)
Finance income		23,606	18,733	9,092
Share in net (loss)/profit of joint ventures	12	<u>(29,436)</u>	<u>11,967</u>	<u>(184)</u>
		<u>(70,914)</u>	<u>(22,294)</u>	<u>(41,098)</u>
Profit before income tax		820,998	929,531	546,520
Income tax expense	34d	<u>(343,457)</u>	<u>(393,093)</u>	<u>(205,834)</u>
Profit for the year		<u>477,541</u>	<u>536,438</u>	<u>340,686</u>
Other comprehensive (loss)/income for the year:				
Items that will be reclassified to profit or loss:				
Changes in fair value of available-for-sale financial assets	7	(10,954)	978	-
Exchange difference due to financial statements translation		(2,195)	(1,937)	1,181
Share of other comprehensive income/(loss) of joint ventures	12	13,687	(12,832)	30,535
Changes in value of cash flow hedges	19	(21,111)	(1,096)	2,423
Income tax relating to these items	34d	<u>9,500</u>	<u>493</u>	<u>(1,090)</u>
		<u>(11,073)</u>	<u>(14,394)</u>	<u>33,049</u>
Items that will not be reclassified to profit or loss:				
Remeasurement of post-employment benefits liabilities		3,371	(5,531)	13,472
Income tax relating to this item	34d	<u>(1,228)</u>	<u>1,618</u>	<u>(5,437)</u>
		<u>2,143</u>	<u>(3,913)</u>	<u>8,035</u>
		<u>(8,930)</u>	<u>(18,307)</u>	<u>41,084</u>
Total comprehensive income for the year, net of tax		<u><u>468,611</u></u>	<u><u>518,131</u></u>	<u><u>381,770</u></u>

The accompanying notes to the consolidated financial statements form an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF PROFIT OR LOSS
AND OTHER COMPREHENSIVE INCOME**

FOR THE YEARS ENDED 31 DECEMBER 2018, 2017 AND 2016

(Expressed in thousands of US Dollars, except for basic and diluted earnings per share)

	<u>Notes</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Profit for the year attributable to:				
Owners of the parent entity		417,720	483,297	334,621
Non-controlling interests	29	<u>59,821</u>	<u>53,141</u>	<u>6,065</u>
Profit for the year		<u>477,541</u>	<u>536,438</u>	<u>340,686</u>
Total comprehensive income for the year attributable to:				
Owners of the parent entity		410,850	465,293	374,510
Non-controlling interests	29	<u>57,761</u>	<u>52,838</u>	<u>7,260</u>
Total comprehensive income for the year, net of tax		<u>468,611</u>	<u>518,131</u>	<u>381,770</u>
Earnings per share attributable to owners of the parent entity	36			
- Basic (full amount)		0.01306	0.01511	0.01046
- Diluted (full amount)		0.01215	0.01406	0.00974

The accompanying notes to the consolidated financial statements form an integral part of these consolidated financial statements.

PT ADARO ENERGY Tbk AND ITS SUBSIDIARIES

Schedule 3

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED 31 DECEMBER 2018, 2017 AND 2016**
(Expressed in thousands of US Dollars)

	Attributable to owners of the parent entity											
	Share capital	Additional paid-in capital, net	Difference in value from transactions with non-controlling interests	Other comprehensive (loss)/income					Total	Non-controlling interests	Total equity	
				Retained earnings	Foreign currency translation	Reserve for changes in fair value of cash flow hedges	Share of other comprehensive income/(loss) of joint ventures	Reserve for changes in fair value of available-for-sale financial assets				
	Appropriated	Unappropriated										
Balance as at 1 January 2016	342,940	1,154,494	-	51,182	1,335,827	(18,555)	-	-	-	2,865,888	487,155	3,353,043
Total comprehensive income for the year	-	-	-	-	341,675	1,121	1,179	-	30,535	374,510	7,260	381,770
Issuance of subsidiaries' shares to non-controlling interest (Note 29)	-	-	-	-	-	-	-	-	-	-	157,329	157,329
Transaction with non-controlling interest (Note 26)	-	-	7,135	-	-	-	-	-	-	7,135	-	7,135
Appropriation of retained earnings (Note 27)	-	-	-	1,525	(1,525)	-	-	-	-	-	-	-
Dividends (Notes 28 and 29)	-	-	-	-	(101,075)	-	-	-	-	(101,075)	(12,320)	(113,395)
Balance as at 31 December 2016	342,940	1,154,494	7,135	52,707	1,574,902	(17,434)	1,179	-	30,535	3,146,468	639,424	3,785,882
Total comprehensive income for the year	-	-	-	-	479,530	(1,728)	(534)	857	(12,832)	465,293	52,838	518,131
Issuance of subsidiaries' shares to non-controlling interest (Note 29)	-	-	-	-	-	-	-	-	-	-	18,126	18,126
Transactions with non-controlling interest (Note 26)	-	-	(3,063)	-	-	-	-	-	-	(3,063)	-	(3,063)
Appropriation of retained earnings (Note 27)	-	-	-	3,346	(3,346)	-	-	-	-	-	-	-
Dividends (Notes 28 and 29)	-	-	-	-	(140,418)	-	-	-	-	(140,418)	(87,031)	(227,449)
Balance as at 31 December 2017	342,940	1,154,494	4,072	56,053	1,910,668	(19,162)	645	857	17,703	3,468,270	623,357	4,091,627
Total comprehensive income for the year	-	-	-	-	419,737	(2,308)	(10,272)	(10,189)	13,882	410,850	57,761	468,611
Issuance of subsidiaries' shares to non-controlling interest (Note 29)	-	-	-	-	-	-	-	-	-	-	20,249	20,249
Transactions with non-controlling interest (Note 26)	-	-	(3,540)	-	-	-	-	-	-	(3,540)	-	(3,540)
Appropriation of retained earnings (Note 27)	-	-	-	4,833	(4,833)	-	-	-	-	-	-	-
Dividends (Notes 28 and 29)	-	-	-	-	(225,181)	-	-	-	-	(225,181)	(49,074)	(274,255)
Balance as at 31 December 2018	342,940	1,154,494	532	60,886	2,100,391	(21,470)	(9,627)	(9,332)	31,585	3,650,399	652,293	4,302,692

The accompanying notes to the consolidated financial statements form an integral part of these consolidated financial statements.

**CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED 31 DECEMBER 2018, 2017 AND 2016**

(Expressed in thousands of US Dollars)

	2018	2017	2016
Cash flows from operating activities			
Receipts from customers	3,564,084	3,271,603	2,417,173
Payments to suppliers	(1,667,439)	(1,390,939)	(1,194,301)
Payments to employees	(191,770)	(158,206)	(134,996)
Receipts of finance income	25,961	14,960	9,092
Payments of royalties	(372,362)	(335,641)	(252,577)
Payments of corporate income taxes and final income tax	(407,365)	(515,462)	(155,474)
Receipts of income tax refunds	14,552	11,363	17,808
Payments of finance costs	(59,841)	(46,804)	(43,768)
Payments of sales tax	(7,484)	(7,372)	(26,280)
Other receipts, net	7,574	10,178	38,846
Net cash flows provided from operating activities	905,910	853,680	675,523
Cash flows from investing activities			
Purchase of available-for-sale financial assets	(22,024)	(309,354)	-
Proceeds from sales of available-for-sale financial assets	155,413	56,095	-
Purchase of fixed assets	(342,792)	(155,352)	(77,839)
Proceeds from disposal of fixed assets	32,966	6,069	560
Payment for addition of mining properties	(69,294)	(30,841)	(31,985)
Net cash outflow from investment in joint venture	(547,425)	-	-
Net cash outflow from acquisition of subsidiaries	-	-	(119,120)
Net cash flows used in investing activities	(793,156)	(433,383)	(228,384)
Cash flows from financing activities			
Proceeds from bank loans	220,000	50,784	25,000
Repayments of bank loans	(257,783)	(128,825)	(144,000)
Payments of bank loan-related transaction costs	(5,839)	-	-
Payments of dividends to the Company's shareholders	(250,130)	(101,075)	(75,487)
Payments of dividends to non-controlling interests	(52,184)	(85,469)	(1,038)
Payments of finance lease payables	(39,185)	(33,481)	(40,985)
Transfer to restricted time deposits	(7,529)	(5,022)	(792)
Repayments of loans from a third party	(2,460)	-	-
Receipt of capital injection from non-controlling interests	16,709	12,234	164,308
Proceeds from sale of investment in a subsidiary	-	2,871	-
Purchase of non-controlling interest in a subsidiary	-	(678)	-
Net cash flows used in financing activities	(378,401)	(288,661)	(72,994)
Net (decrease)/increase in cash and cash equivalents	(265,647)	131,636	374,145
Cash and cash equivalents at the beginning of the year	1,206,848	1,076,948	702,452
Effect of exchange rate changes on cash and cash equivalents	(13,305)	(1,736)	351
Cash and cash equivalents at the end of the year (Note 5)	927,896	1,206,848	1,076,948

Refer to Note 38 for presentation of the Group's cash flow information.

The accompanying notes to the consolidated financial statements form an integral part of these consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**31 DECEMBER 2018, 2017 AND 2016**

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL**a. Establishment of the Company and other information**

PT Adaro Energy Tbk (the “Company”) was established by Notarial Deed No. 25 dated 28 July 2004 of Sukawaty Sumadi, S.H., Notary in Jakarta. The Deed was published in the State Gazette of the Republic of Indonesia No. 59, dated 25 July 2006, State Gazette Supplement No. 8036 and was approved by the Minister of Justice of the Republic of Indonesia in Decree No.C-21493 HT.01.01.TH.2004, dated 26 August 2004. The Articles of Association of the Company have been amended several times with the most recent change by Notarial Deed No. 36 dated 6 July 2015 of Humbert Lie, S.H., S.E., M.Kn., to conform with the requirements of the Financial Services Authority (*Otoritas Jasa Keuangan*) Regulation No. 32/POJK.04/2014, dated 8 December 2014, regarding Planning and Execution of the General Meeting of Shareholders of a Public Company and the Financial Services Authority Regulation No. 33/POJK.04/2014, dated 8 December 2014, regarding the Boards of Directors and Commissioners of a Public Company. These amendments to the Articles of Association were accepted by the Minister of Law and Human Rights of the Republic of Indonesia in Notification Receipt No. AHU-AH.01.03-0953799, dated 3 August 2015.

In July 2008, the Company conducted an Initial Public Offering (“IPO”) of 11,139,331,000 shares (34.8% of 31,985,962,000 shares issued and fully paid-up). The shares offered to the public in the IPO were listed on the Indonesia Stock Exchange on 16 July 2008.

In accordance with Article 3 of the Articles of Association, the Company is engaged in trading, services, industry, coal hauling, workshop activities, mining and construction. The Company’s subsidiaries are engaged in coal mining, coal trading, mining contractor services, infrastructure, coal logistics, power generation activities and water treatment.

The Company commenced its commercial operations in July 2005. The Company’s head office is in Jakarta and is located at the Menara Karya Building, 23rd floor, Jl. H.R. Rasuna Said Block X-5, Kav. 1-2, South Jakarta.

Based on Notarial Deed No. 69 dated 14 December 2018 of Humbert Lie, S.H., S.E., M.Kn., the Company’s Boards of Commissioners and Directors as at 31 December 2018 were as follows:

President Commissioner	: Edwin Soeryadjaya
Vice President Commissioner	: Theodore Permadi Rachmat
Commissioner	: Arini Saraswati Subianto
Independent Commissioner	: Dr. Ir. Raden Pardede
President Director	: Garibaldi Thohir
Vice President Director	: Christian Ariano Rachmat
Directors	: Julius Aslan
	: Chia Ah Hoo
	: M. Syah Indra Aman

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
31 DECEMBER 2018, 2017 AND 2016

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)

a. Establishment of the Company and other information (continued)

The Company's Boards of Commissioners and Directors as at 31 December 2017 were as follows:

President Commissioner	: Edwin Soeryadjaya
Vice President Commissioner	: Theodore Permadi Rachmat
Commissioner	: Arini Saraswati Subianto ^{*)}
Independent Commissioner	: Ir. Palgunadi Tatit Setyawan ^{**)} Dr. Ir. Raden Pardede

President Director	: Garibaldi Thohir
Vice President Director	: Christian Ariano Rachmat
Directors	: David Tendian Chia Ah Hoo M. Syah Indra Aman Julius Aslan Siswanto Prawiroatmodjo

The Company's Boards of Commissioners and Directors as at 31 December 2016 were as follows:

President Commissioner	: Edwin Soeryadjaya
Vice President Commissioner	: Theodore Permadi Rachmat
Commissioner	: Ir. Subianto ^{***)}
Independent Commissioner	: Ir. Palgunadi Tatit Setyawan Dr. Ir. Raden Pardede

President Director	: Garibaldi Thohir
Vice President Director	: Christian Ariano Rachmat
Directors	: David Tendian Chia Ah Hoo M. Syah Indra Aman Julius Aslan Siswanto Prawiroatmodjo

^{*)} Arini Saraswati Subianto was appointed as a commissioner of the Company at the Company's Annual General Meeting of Shareholders ("AGMS") on 26 April 2017.

^{**)} In accordance with Article 15 paragraph 9 of the Company's Articles of Association, the position as a member of the Board of Commissioners ends upon the death of that commissioner. On 28 May 2018, Ir. Palgunadi Tatit Setyawan, an independent commissioner and the Chairman of the audit committee of the Company, passed away, therefore, his position as an independent commissioner of the Company ended on that date.

^{***)} In accordance with Article 15 paragraph 9 of the Company's Articles of Association, the position as a member of the Board of Commissioners ends upon the death of the commissioner. On 4 January 2017, Ir. Subianto, a commissioner of the Company, passed away, therefore, his position as a commissioner of the Company ended on that date.

The composition of the Company's Audit Committee as at 31 December 2018 was as follows:

Chairman	: Dr. Ir. Raden Pardede
Members	: Ignatius Robby Sani Lindawati Gani

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
31 DECEMBER 2018, 2017 AND 2016

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)**a. Establishment of the Company and other information (continued)**

The composition of the Company's Audit Committee as at 31 December 2017 and 2016 was as follows:

Chairman	: Ir. Palgunadi Tatit Setyawan
Members	: Prof. Dr. Ir. Irwandy Arif, M.Sc
	: Mamat Ma'mun, S.E.

As at 31 December 2018, the Company and its subsidiaries had 10,259 permanent employees (2017: 8,842 permanent employees and 2016: 7,923 permanent employees) (unaudited).

b. Group structure

In these consolidated financial statements, the Company and its subsidiaries are collectively referred to as the "Group".

As at 31 December 2018, 2017 and 2016, the structure of the Group was as follows:

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership			Total assets (before elimination)		
				2018	2017	2016	2018	2017	2016
<u>Directly owned subsidiaries</u>									
PT Alam Tri Abadi ("ATA") ^{a)}	Trading and services	Indonesia	2007	100%	100%	100%	6,839,938	6,687,783	6,972,216
PT Saptaindra Sejati ("SIS")	Mining services	Indonesia	2002	100%	100%	100%	758,211	532,207	470,147
<u>Indirectly owned subsidiaries</u>									
PT Adaro Indonesia ("AI")	Mining	Indonesia	1992	88%	88%	88%	2,252,033	2,299,219	2,672,215
PT Dianlia Setyamukti ("Dianlia")	Investment	Indonesia	-	100%	100%	100%	38,372	39,438	52,724
PT Jasapower Indonesia ("JPI")	Mining services	Indonesia	2016	100%	100%	100%	142,604	230,963	295,503
PT Biscayne Investments ("Biscayne")	Investment	Indonesia	-	100%	100%	100%	115	116	116
PT Indonesia Bulk Terminal ("IBT")	Terminal handling services	Indonesia	1997	100%	100%	100%	89,998	84,992	91,441
PT Adaro Persada Mandiri ("APM") ^{a)}	Services	Indonesia	2006	100%	100%	100%	65,466	59,614	58,383
Arindo Holdings (Mauritius) Ltd ("Arindo Holdings") ^{a)}	Investment	Mauritius	-	90%	95%	100%	1,090,050	487,463	428,158
Vindoor Investments (Mauritius) Ltd ("Vindoor") ^{a)}	Investment	Mauritius	-	90%	95%	100%	888,125	120,612	68,297
Coaltrade Services International Pte Ltd ("Coaltrade")	Coal trading	Singapore	2001	90%	95%	100%	701,138	120,531	68,187
PT Viscaya Investments ("Viscaya")	Investment	Indonesia	-	100%	100%	100%	247,304	256,499	347,906

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
31 DECEMBER 2018, 2017 AND 2016
(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)

b. Group structure (continued)

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership			Total assets (before elimination)		
				2018	2017	2016	2018	2017	2016
Indirectly owned subsidiaries (continued)									
PT Sarana Daya Mandiri ("SDM")	Services	Indonesia	2009	51%	51%	51%	40,109	35,116	37,161
Orchard Maritime Logistics Pte Ltd ("OML")	Coal handling and barging	Singapore	2006	100%	100%	100%	5,723	5,724	6,044
PT Adaro Logistics ("AL") ^{a)}	Investment	Indonesia	-	100%	100%	100%	537,328	462,655	391,258
PT Maritim Barito Perkasa ("MBP")	Coal handling and barging	Indonesia	2004	100%	100%	100%	384,476	330,930	298,290
PT Harapan Bahtera Internusa ("HBI")	Domestic sea transportation	Indonesia	2004	100%	100%	100%	23,328	17,423	18,294
PT Adaro Power ("AP") ^{a)}	Investment	Indonesia	-	100%	100%	100%	250,151	218,893	220,123
PT Makmur Sejahtera Wisesa ("MSW")	Trading and power plant services	Indonesia	2013	100%	100%	100%	147,866	154,696	159,921
PT Puradika Bongkar Muat Makmur ("PBMM")	Services	Indonesia	2013	100%	100%	100%	13,784	5,016	3,570
PT Rehabilitasi Lingkungan Indonesia ("RLI") ^{a)}	Services	Indonesia	2016	100%	100%	100%	6,487	1,423	1,126
PT Indonesia Multi Purpose Terminal ("IMPT")	Terminal handling services	Indonesia	2013	85%	85%	85%	1,040	1,552	2,631
PT Mustika Indah Permai ("MIP")	Mining	Indonesia	-	75%	75%	75%	68,754	55,249	47,900
PT Bukit Enim Energi ("BEE")	Mining	Indonesia	-	61%	61%	61%	957	747	597
PT Adaro Mining Technologies ("AMT") ^{a)}	Services	Indonesia	-	100%	100%	100%	36,879	39,351	35,935
PT Adaro Jasabara Indonesia ("AJI") ^{g)}	Services	Indonesia	2007	100%	100%	100%	3,301	2,718	451
PT Bhakti Energi Persada ("BEP") ^{a)}	Investment	Indonesia	-	10%	10%	10%	76,618	72,643	69,661
PT Persada Multi Bara ("PMB")	Mining	Indonesia	-	10%	10%	10%	16,244	16,219	14,277
PT Khazana Bumi Kaliman ("KBK")	Mining	Indonesia	-	9%	9%	9%	7,655	7,647	6,312
PT Bumi Kaliman Sejahtera ("BKS")	Mining	Indonesia	-	9%	9%	9%	10,542	10,561	9,155
PT Telen Eco Coal ("TEC")	Mining	Indonesia	-	10%	10%	10%	13,281	13,281	12,200
PT Bumi Murau Coal ("BMC")	Mining	Indonesia	-	10%	10%	10%	5,237	5,211	4,421
PT Birawa Pandu Selaras ("BPS")	Mining	Indonesia	-	9%	9%	9%	684	676	552

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
31 DECEMBER 2018, 2017 AND 2016

(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)

b. Group structure (continued)

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership			Total assets (before elimination)		
				2018	2017	2016	2018	2017	2016
Indirectly owned subsidiaries (continued)									
PT Tri Panuntun Persada ("TPP")	Mining	Indonesia	-	9%	9%	9%	556	566	465
PT Wahau Tutung Investindo ("WTI")	Trading and construction services	Indonesia	-	10%	10%	10%	9,521	10,080	10,513
PT Bhakti Kutai Transportindo ("BKT")	Transportation	Indonesia	-	6%	6%	6%	138	168	178
PT Bukit Bara Alampersada ("BBA") ^{a)}	Investment	Indonesia	-	10%	10%	10%	7,635	7,044	6,487
PT Bhakti Kumala Sakti ("BKl")	Services	Indonesia	-	10%	10%	10%	2	2	2
PT Wahau Sumber Alam ("WSA")	Services	Indonesia	-	10%	10%	10%	67	70	68
PT Etam Sukses Sejahtera ("ESS")	Services	Indonesia	-	10%	10%	10%	278	296	299
PT Murau Selo Sejahtera ("MSS")	Services	Indonesia	-	10%	10%	10%	1	1	1
PT Sumber Guna Alam Lestari ("SGAL")	Services	Indonesia	-	10%	10%	10%	1	1	1
PT Adaro Tirta Mandiri ("ATM") ^{a) f)}	Trading	Indonesia	-	100%	100%	100%	17,038	14,804	12,460
PT Agri Multi Lestari ("AML")	Farming	Indonesia	2016	100%	100%	100%	2,167	2,154	2,083
PT Paramitha Cipta Sarana ("PCS")	Mining	Indonesia	-	75%	75%	75%	41,365	39,337	37,593
PT Semesta Centramas ("SCM")	Mining	Indonesia	2014	75%	75%	75%	70,975	63,320	29,101
PT Laskar Semesta Alam ("LSA")	Mining	Indonesia	2016	75%	75%	75%	76,664	32,060	15,445
PT Trimitra Tirta Sarana ("TTS") ^{a) h)}	Investment	Indonesia	-	80%	80%	69%	13,614	14,092	12,020
PT Drupadi Tirta Intan ("DTI") ^{h)}	Water treatment	Indonesia	2016	80%	80%	69% ⁱ⁾	5,671	5,821	5,104
PT Drupadi Tirta Gresik ("DTG") ^{h)}	Water treatment	Indonesia	2016	80%	80%	69% ⁱ⁾	6,933	7,001	5,087
PT Lahai Coal ("LC") ^{h)}	Mining	Indonesia	2016	100%	100%	100%	195,325	185,616	176,643
PT Pari Coal("PC") ^{h)}	Mining	Indonesia	-	100%	100%	100%	3,003	3,499	3,799
PT Juloi Coal ("JC") ^{h)}	Mining	Indonesia	-	100%	100%	100%	8,831	6,984	8,043
PT Sumber Barito Coal ("SBC") ^{h)}	Mining	Indonesia	-	100%	100%	100%	1,292	866	806
PT Kalteng Coal ("KC") ^{h)}	Mining	Indonesia	-	100%	100%	100%	5,891	6,393	6,685
PT Maruwai Coal ("MC") ^{h)}	Mining	Indonesia	-	100%	100%	100%	404,033	276,557	221,729

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
31 DECEMBER 2018, 2017 AND 2016
(Expressed in thousands of US Dollars, unless otherwise stated)

1. GENERAL (continued)

b. Group structure (continued)

	Business activity	Domicile	Commencement of commercial operations	Effective percentage of ownership			Total assets (before elimination)		
				2018	2017	2016	2018	2017	2016
Indirectly owned subsidiaries (continued)									
PT Ratah Coal ("RC") ^{h)}	Mining	Indonesia	-	100%	100%	100%	193	188	245
PT Balangan Anugerah Semesta ("BAS") ⁱ⁾	Mining	Indonesia	-	75%	75%	-	21	182	-
Adaro Capital Limited ("ACL") ^{b)}	Investment	Malaysia	2017	90%	95%	-	526,907	31,005	-
PT Alam Sukses Lestari ("ASL") ^{c)}	Services	Indonesia	2017	100%	-	-	470	-	-
PT Barito Galangan Nusantara ("BGN") ^{d)}	Manufacture, repair and maintenance of sea transportation	Indonesia	2018	100%	-	-	6,921	-	-
PT Hutan Amanah Lestari ("HAL") ^{c)}	Services	Indonesia	2018	85%	-	-	100	-	-
PT Adaro Tirta Mentaya ("ATME") ^{c) e)}	Water treatment	Indonesia	-	90%	-	-	1,594	-	-

a) and its subsidiaries

b) established in 2017

c) acquired in 2018

d) established in 2018

e) formerly PT Inogreen Tirta Mentaya ("ITM")

f) formerly PT Sarana Rekreasi Mandiri ("SRM")

g) formerly PT Adaro Eksplorasi Indonesia ("AEI")

h) acquired in 2016 (Note 4)

i) established in 2016

j) as revised, previously presented 100%

c. AI Coal Cooperation Agreement

AI's activities are governed by the provisions of a Coal Cooperation Agreement (the "CCA") which was entered into by AI and PT Tambang Batubara Bukit Asam (Persero) Tbk ("PTBA"), formerly Perusahaan Negara Tambang Batubara, on 16 November 1982. Based on Presidential Decree No. 75/1996 dated 25 September 1996 and the amendment to CCA No. J2/Ji.DU/52/82 between PTBA and AI on 27 June 1997, all of the rights and obligations of PTBA under the CCA were transferred to the Government of the Republic of Indonesia (the "Government") represented by the Minister of Mines and Energy, effective from 1 July 1997.

Under the terms of the CCA, AI acts as a contractor to the Government, and is responsible for coal mining operations in an area located in South Kalimantan. AI commenced its 30-year operating period on 1 October 1992 with coal produced from the Paringin area of interest. AI is entitled to 86.5% of the coal produced, with the remaining 13.5% representing the Government's share of production. However, the Government's share of production is, in practice, settled in cash when the sales of coal are actually completed. Therefore, the amount of royalty payable that is settled in cash to the Government depends on the actual volume of sales in that particular period.

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1. GENERAL (continued)

c. AI Coal Cooperation Agreement (continued)

On 18 September 2014, AI signed a Memorandum of Understanding (“MoU”) with the Government to amend its CCA. This MoU was signed within the framework of the renegotiation process for adjustment of the CCA, which only related to six strategic issues: (i) the CCA area, (ii) the continuation of Mining Operations, (iii) State Revenue, (iv) Obligations of Domestic Processing, (v) Obligations to Divest, and (vi) Use of Local Labour, Goods and Domestic Services.

On 17 January 2018, AI signed an amendment to the CCA (“Amendment to the CCA”) with the Government. This amendment was signed for the purpose of adjusting the provisions of the CCA to comply with the provisions of Law No. 4 of 2009 on Mineral and Coal Mining pursuant to the requirement as set forth in Article 169 of the said law. AI believes that there is no adverse material impact on AI’s operational activities, legal status, financial condition or business continuity.

AI’s sales reflect 100% of the revenue generated from coal sales. The Government royalty expense is presented in profit or loss as part of cost of revenue (Note 31).

d. IBT Cooperation Agreement

On 25 August 1990, IBT entered into a Basic Agreement with PT Pelabuhan Indonesia III (Persero) (formerly Perum Pelabuhan III) (“Pelindo III”) for the construction, development and operation of a Public Coal Port in Pulau Laut, South Kalimantan. On 10 November 1994, IBT and Pelindo III amended the Basic Agreement to a Cooperation Agreement (“Agreement”). Under the terms of the Agreement, IBT commenced its 30-year operating period on 21 August 1997 and has an obligation to pay royalties to Pelindo III based on a certain percentage of the revenue from management services for the coal bulk terminal.

On 18 August 2009, IBT and Pelindo III amended the Agreement in relation to the expansion of IBT’s business to include the management of the liquid bulk terminal. Under the amendment, IBT has an obligation to pay Pelindo III a share of the handling fee at a certain amount per tonne for unloading and loading liquid bulk terminal activities.

On 9 February 2011, IBT and Pelindo III further agreed to amend the royalty fee for the management of the coal bulk terminal services from a certain percentage of the revenue to a fixed rate per tonne.

On 1 October 2014, IBT and Pelindo III agreed to amend the shared amount of handling fees per kilolitre for unloading and loading liquid bulk terminal activities.

On 11 August 2015, IBT and Pelindo III signed certain Minutes of Meeting in which the parties agreed in principle to amend the scope of the cooperation to become a joint venture. However, each party must first obtain approval from their respective shareholders in order to conclude this arrangement.

On 21 June 2017, IBT, Pelindo III and PT Pertamina Patra Niaga signed a Memorandum of Collaboration (“MOC”) in which the parties agreed in principle to cooperate in the development of the Mekar Putih Public Port through the establishment of a joint venture. However, the MOC has expired on 18 December 2017.

On 12 March 2018, IBT and Pelindo III signed an Initial Agreement in which the parties agreed in principle to cooperate in the development of the Mekar Putih Public Port through the establishment of a joint venture company.

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1. GENERAL (continued)**e. Barito Channel Cooperation Agreement**

On 28 August 2007, PT Ambang Barito Nusapersada ("Ambapers") appointed SDM as a partnership winner to execute the dredging of the Barito Channel, which includes river-mouth dredging, maintenance dredging and financing the channel dredging project. On 25 March 2008, SDM entered into a Cooperation Agreement with Ambapers to execute this appointment. The term of the agreement is 15 years commencing on the date on which the channel utilisation service fee is charged by Ambapers on 1 January 2009. Afterwards, SDM will be given the first right to consider extension or refusal to extend for the next five years, with a guarantee from Ambapers that the terms and conditions offered to third parties will not be easier to satisfy or more beneficial than those offered to SDM.

Ambapers charges a channel fee for every ship that passes through the Barito Channel in accordance with the regulations set by the local government. Revenue from the management of channel fees is distributed to the local government, Ambapers and SDM in the determined proportions on the fifth day of the following month.

f. Adaro MetCoal ("AMC") Coal Cooperation Agreements

Several subsidiaries of the Group within the AMC development have entered into CCAs with the Government for the exploration and exploitation of coal resources with details as follows:

No.	Company	Agreement date	Amendment date	Location
1	PT Pari Coal	19 April 1999	14 November 2017	East Kalimantan and Central Kalimantan
2	PT Ratah Coal	6 September 2000	14 November 2017	East Kalimantan and Central Kalimantan
3	PT Lahai Coal	6 September 2000	14 November 2017	East Kalimantan and Central Kalimantan
4	PT Juloi Coal	6 September 2000	14 November 2017	Central Kalimantan
5	PT Kalteng Coal	19 February 1998	14 November 2017	Central Kalimantan
6	PT Maruwai Coal	19 February 1998	14 November 2017	East Kalimantan and Central Kalimantan
7	PT Sumber Barito Coal	19 April 1999	14 November 2017	East Kalimantan and Central Kalimantan

Based on the CCAs, the operating period of the relevant areas of interest is for a 30-year period from the first coal mining operation, or a longer period agreed by the Government based on the AMC entities' written request.

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1. GENERAL (continued)**g. Mining Business Permits**

As at 31 December 2018, 2017 and 2016, other than the CCAs entered into by AI and the AMC entities, the Group had the following mining business permits:

No	Decree			Permit		Period (Years)	Location
	Number	Date	By	Type	Holder		
1	No. 503/188/KEP/PERTAMBEN/2010	29 April 2010	Regent of Lahat	IUPOP	MIP	20	Lahat Regency, South Sumatera Province
2	No. 256/KPTS/TAMBEN/2011	9 March 2011	Regent of Muara Enim	IUPOP	BEE	20	Muara Enim Regency, South Sumatera Province
3	No. 540.1/K.288/HK/V/2011	10 May 2011	Regent of East Kutai	IUPOP	BMC	20	East Kutai Regency, East Kalimantan Province
4	No. 540.1/K.289/HK/V/2011	10 May 2011	Regent of East Kutai	IUPOP	PMB	20	East Kutai Regency, East Kalimantan Province
5	No. 540.1/K.490/HK/V/2010	21 May 2010	Regent of East Kutai	IUPOP	TEC	28	East Kutai Regency, East Kalimantan Province
6	No. 540.1/K.665/HK/VIII/2012	6 August 2012	Regent of East Kutai	IUPOP	KBK	20	East Kutai Regency, East Kalimantan Province
7	No. 540.1/K.666/HK/VIII/2012	6 August 2012	Regent of East Kutai	IUPOP	BKS	20	East Kutai Regency, East Kalimantan Province
8	No. 540.1/K.545/HK/VI/2013	11 June 2013	Regent of East Kutai	IUPOP	TPP	20	East Kutai Regency, East Kalimantan Province
9	No. 540.1/K.546/HK/VI/2013	11 June 2013	Regent of East Kutai	IUPOP	BPS	20	East Kutai Regency, East Kalimantan Province
10	No. 0466 K/30/MEM/2015*	12 February 2015	Ministry of Energy and Mineral Resources ("MoEMR")	IUPOP	PCS	20 until 2029	Balangan Regency, South Kalimantan Province
11	No. 0427 K/30/MEM/2015*	10 February 2015	MoEMR	IUPOP	SCM	20 until 2029	Balangan Regency, South Kalimantan Province
12	No. 0636 K/30/MEM/2015**	24 February 2015	MoEMR	IUPOP	LSA	20 until 2034	Balangan Regency, South Kalimantan Province

IUPOP: Operation and Production Mining Business Licence

IUPE: Exploration Mining Business Licence

*IUPOP issued based on Decree of Regent of Balangan No. 188.45/83/Kum Year 2009 dated 8 April 2009 (PCS) and Decree of Regent of Balangan No. 188.45/131/Kum Year 2009 (SCM) dated 21 July 2009, both adjusted in accordance with the decree of the Minister of Energy and Mineral Resources ("Minister of EMR") due to their change in status to Foreign Capital Investment Companies

**IUPE which ended in 2014 has been upgraded to IUPOP issued by Minister of EMR due to change in status to a Foreign Capital Investment Company

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2. SIGNIFICANT ACCOUNTING POLICIES

Presented below are the significant accounting policies adopted in preparing the consolidated financial statements of the Group. These policies have been consistently applied to all of the years presented, unless otherwise stated.

a. Basis of preparation of the consolidated financial statements

The Group's consolidated financial statements have been prepared in conformity with Indonesian Financial Accounting Standards and the Decree of the Chairman of Bapepam-LK No. KEP-347/BL/2012, dated 25 June 2012 regarding the Presentation and Disclosure of Financial Statements of Issuers or Public Companies.

The consolidated financial statements have been prepared under the historical cost convention, except for available-for-sale financial assets and derivative instruments which are recognised at fair value, and using the accrual basis except for the consolidated statements of cash flows.

The preparation of consolidated financial statements in conformity with Indonesian Financial Accounting Standards requires the use of certain critical accounting estimates and assumptions. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 3.

b. Changes to Statements of Financial Accounting Standards ("SFAS") and Interpretations of Financial Accounting Standards ("IFAS")

The adoption of the following new standard, amendments and annual improvements to accounting standards which are effective from 1 January 2018 did not result in substantial changes to the Group's accounting policies and had no material effect on the amounts reported in the consolidated financial statements for the current year:

- SFAS No. 69, "Agriculture"
- Amendment to SFAS No. 2, "Statement of Cash Flows - Disclosures Initiative"
- Amendment to SFAS No. 13, "Investment Property - Transfers of Investment Property"
- Amendment to SFAS No. 16, "Property, Plant and Equipment - Agriculture: Bearer Plants"
- Amendment to SFAS No. 46, "Income Taxes - Recognition of Deferred Tax Assets for Unrealised Losses"
- Amendment to SFAS No. 53, "Share-based Payment - Classification and Measurement of Share-based Payment Transactions"
- Annual improvement to SFAS No. 15, "Investments in Associates and Joint Ventures"
- Annual improvement to SFAS No. 67, "Disclosures of Interests in Other Entities"

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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(Expressed in thousands of US Dollars, unless otherwise stated)

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

b. Changes to Statements of Financial Accounting Standards ("SFAS") and Interpretations of Financial Accounting Standards ("IFAS") (continued)

New standards, amendments, annual improvements and interpretations issued but not yet effective for the financial year beginning 1 January 2018 are as follows:

- IFAS No. 33, "Foreign Currency Transactions and Advance Consideration"
- IFAS No. 34, "Uncertainty over Income Tax Treatments"
- Amendment to SFAS No. 15, "Investments in Associates and Joint Ventures"
- Amendment to SFAS No. 24, "Employee Benefits - Plan Amendment, Curtailment or Settlement"
- Amendment to SFAS No. 62, "Insurance Contracts"
- Amendment to SFAS No. 71, "Financial Instruments - Prepayment Features with Negative Compensation"
- SFAS No. 71, "Financial Instruments"
- SFAS No. 72, "Revenue from Contracts with Customers"
- SFAS No. 73, "Leases"
- SFAS No. 112, "Accounting for Endowments"
- Annual improvement to SFAS No. 22, "Business Combinations"
- Annual improvement to SFAS No. 26, "Borrowing Costs"
- Annual improvement to SFAS No. 46, "Income Taxes"
- Annual improvement to SFAS No. 66, "Joint Arrangements"

The above new standards, amendments, annual improvements and interpretations are effective beginning 1 January 2019, except for SFAS No. 71, SFAS No. 72, SFAS No. 73, Amendment to SFAS No. 15, Amendment to SFAS No. 62 and Amendment to SFAS No. 71 which are effective from 1 January 2020 and SFAS No. 112 which is effective from 1 January 2021.

Early adoption of the above standards is permitted, while early adoption of SFAS No. 73 is permitted only upon the early adoption of SFAS No. 72.

As at the issuance date of these consolidated financial statements, the Group is evaluating the potential impact of these new standards and amendments, annual improvements and interpretations on the Group's consolidated financial statements.

c. Principles of consolidation

i. Subsidiaries

i.1. Consolidation

Subsidiaries are all entities (including structured entities), over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Subsidiaries are consolidated from the date on which control is transferred to the Group and are de-consolidated from the date on which that control ceases.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**31 DECEMBER 2018, 2017 AND 2016**

(Expressed in thousands of US Dollars, unless otherwise stated)

2. SIGNIFICANT ACCOUNTING POLICIES (continued)**c. Principles of consolidation (continued)****i. Subsidiaries (continued)****i.1. Consolidation (continued)**

Intragroup balances, transactions, income and expenses are eliminated. Profits and losses resulting from intragroup transactions that are recognised in assets are also eliminated. The accounting policies of subsidiaries have been amended where necessary to ensure consistency with the policies adopted by the Group.

i.2. Acquisition

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group.

The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired, liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values as at the acquisition date.

The Group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets. Non-controlling interests are reported as equity in the consolidated statements of financial position, separate from the owner of the parent entity.

Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the Group will remeasure its previously held equity interest in the acquiree at its fair value at its acquisition date and recognise the resulting gain or loss, if any, in profit or loss. Any contingent consideration to be transferred by the Group is recognised at its fair value as at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or a liability are recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

The excess of the consideration transferred, the amount of any non-controlling interests in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the subsidiary acquired and the measurement of all amounts has been reviewed, in the case of a bargain purchase, the difference is recognised directly in profit or loss.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

c. Principles of consolidation (continued)

ii. Changes in ownership interest in subsidiaries without loss of control

Transactions with non-controlling interests that do not result in a loss of control are accounted for as equity transactions. The difference between the fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

iii. Disposal of subsidiaries

When the Group loses control of a subsidiary, the Group derecognises the assets (including any goodwill) and liabilities of the subsidiary at their carrying amounts as at the date on which control is lost. Amounts previously recognised in other comprehensive income are also reclassified to profit or loss, or transferred directly to retained earnings if required under other SFAS.

Any investment retained in the former subsidiary is recognised at its fair value. The difference between the carrying amount of the investment retained at the date when the control is lost and its fair value is recognised in profit or loss.

iv. Associates and joint ventures

Associates are entities over which the Group has significant influence, but not control, generally accompanied by a shareholding giving rise to voting rights of 20% or greater but not exceeding 50%. Investment in associates are accounted for in the consolidated financial statements using the equity method less impairment losses, if any.

A joint venture is a joint arrangement in which the parties that share joint control have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method less impairment losses, if any.

- Acquisitions

Investment in an associate or a joint venture is initially recognised at cost. The cost of an acquisition is measured at the fair value of the assets transferred, equity instruments issued or liabilities incurred or assumed as at the date of exchange, plus costs directly attributable to the acquisition.

Goodwill on acquisition of an associate or a joint venture represents the excess of the cost of acquisition of the associate or joint venture over the Group's share of the fair value of the identifiable net assets of the associate or joint venture and is included in the carrying amount of the investment.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

c. Principles of consolidation (continued)

iv. Associates and joint ventures (continued)

- Equity method of accounting

In applying the equity method of accounting, the Group's share of its associate's or joint venture's post-acquisition profit or loss is recognised in profit or loss and its share of post-acquisition other comprehensive income is recognised in other comprehensive income.

These post-acquisition movements and distributions received from an associate or a joint venture are adjusted against the carrying amounts of the investment.

When the Group's share of the losses of an associate or a joint venture equals or exceeds its interest in the associate or joint venture, including any other unsecured non-current receivables, the Group does not recognise further losses, unless it has obligations to make or has made payments on behalf of the associate or joint venture.

Unrealised gains on transactions between the Group and its associate or joint venture are eliminated to the extent of the Group's interest in the associate or joint venture. Unrealised losses are also eliminated unless the transaction provides evidence of impairment of the asset being transferred. The accounting policies of the associate or joint venture have been changed where necessary to ensure consistency with the accounting policies adopted by the Group.

Dividend receivables from an associate or a joint venture are recognised as reductions in the carrying amounts of the investment.

The Group determines at each reporting date whether there is any objective evidence that the investment in an associate or joint venture is impaired. If any such evidence exists, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or the joint venture and its carrying value and recognises the amount in profit or loss.

- Disposals

An investment in an associate or a joint venture is derecognised when the Group loses significant influence and any retained equity interest in the entity is remeasured at its fair value. The difference between the carrying amount of the retained interest at the date when significant influence is lost and its fair value is recognised in profit or loss.

Gains and losses arising from partial disposal or dilution of an investment in an associate and joint venture in which significant influence is retained are recognised in profit or loss, and only a proportionate share of the amount previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**31 DECEMBER 2018, 2017 AND 2016**

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**d. Foreign currency translation****i. Functional and presentation currency**

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the relevant entity operates (the "functional currency"). The consolidated financial statements are presented in United States Dollars ("US\$" or "US Dollars"), which is the Company's functional currency and the Group's presentation currency.

ii. Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing as at the date of the transactions. As at the reporting date, monetary assets and liabilities denominated in foreign currency are adjusted to reflect the prevailing exchange rates at such date. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

As at the consolidated statement of financial position dates, the exchange rates used, based on the middle rates published by Bank Indonesia, were as follows (full US Dollar amount):

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Rupiah 10,000 ("Rp")	0.69	0.74	0.74
Singapore Dollars ("S\$")	0.73	0.75	0.69
Australian Dollars ("A\$")	0.71	0.78	0.72
Euro ("€")	1.14	1.19	1.05
Yen 100 ("¥")	0.91	0.89	0.86

iii. Group companies

The results of the operations and financial position of all of the Group's subsidiaries (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the Company's presentation currency are translated into the Company's presentation currency as follows:

- (a) The assets and liabilities presented in the consolidated statement of financial position are translated at the closing rate at the date of the consolidated statement of financial position;
- (b) The income and expenses for each profit or loss are translated at the average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case the income and expenses are translated at the rates in force on the dates of the transactions); and
- (c) All of the resulting exchange differences are recognised in other comprehensive income.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**e. Cash and cash equivalents**

Cash and cash equivalents consist of cash on hand, cash in banks and time deposits with maturity periods of three months or less at the time of placement that are not used as collateral or are not restricted.

The consolidated statements of cash flows have been prepared using the direct method by classifying the cash flows on the basis of operating, investing and financing activities.

f. Trade receivables

Trade receivables are amounts due from customers for coal and electricity sold or services performed in the ordinary course of business. Non-trade receivables are amounts arising from transactions outside of the ordinary course of business. If the collection of the receivables is expected within one year or less, they are classified as current assets. If not, they are presented as non-current assets.

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, if the impact of discounting is significant, less provision for impairment.

The amount of the impairment loss is recognised in profit or loss within "impairment charges". When a trade and non-trade receivable for which an impairment allowance had been recognised becomes uncollectible in a subsequent period, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against "impairment charges" in profit or loss.

Non-trade receivables from related parties are initially presented as non-current assets unless there are specific reasons for them to be presented as current assets in the consolidated statement of financial position.

g. Inventories

Coal inventories are stated at the lower of cost or net realisable value. Cost is determined based on the weighted average method, which includes mining costs, direct labour costs, other direct costs and an appropriate portion of fixed and variable overheads related to mining operations. It excludes borrowing costs. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Spare parts, fuel, lubricants, tools and supplies are valued at cost less a provision for obsolete and slow moving inventory. Cost is determined based on the weighted average method. A provision for obsolete and slow moving inventory is determined on the basis of estimated future usage or sale of individual inventory items. Supplies of maintenance materials are charged to production costs in the period in which they are used.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**h. Financial assets****i. Classification, recognition and measurement**

The Group classifies its financial assets into the following categories: (i) financial assets at fair value through profit or loss, (ii) held-to-maturity investments, (iii) loans and receivables and (iv) available-for-sale financial assets. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of financial assets upon initial recognition.

As at 31 December 2018, 2017 and 2016, the Group has financial assets classified as: (i) loans and receivables; and/or (ii) available-for-sale financial assets.

(i). Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for those with maturities greater than 12 months after the end of the reporting year. These are classified as non-current assets. The Group's loans and receivables comprise cash and cash equivalents, restricted time deposits, trade receivables, other receivables and other current and non-current assets.

Loans and receivables are initially recognised at fair value including directly attributable transaction costs and are subsequently carried at amortised cost using the effective interest method.

(ii). Available-for-sale financial assets

Available-for-sale financial assets are non-derivative instruments that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless the investment matures or management expects to realise within 12 months after the reporting year.

Regular purchases and sales of financial assets are recognised as at the settlement date - the date on which an asset is delivered to or by an entity. Available-for-sale financial assets are initially recognised at fair value plus the transaction costs and subsequently carried at fair value.

Changes in the fair value of monetary and non-monetary securities classified as available-for-sale are recognised in other comprehensive income.

Interest on available-for-sale financial assets calculated using the effective interest method is recognised in profit or loss as part of "Finance income".

Refer to Note 2i for details of the Group's accounting policy on derivative financial instruments.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

h. Financial assets (continued)

ii. Derecognition

Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all of the risks and rewards of ownership.

When financial assets classified as available-for-sale are sold, the accumulated fair value adjustments recognised in equity are included in profit or loss as "Other income" or "Other expenses".

iii. Offsetting financial instruments

Financial assets and liabilities are offset and their net amounts are reported in the consolidated statement of financial position when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

iv. Impairment of financial assets

At the end of each reporting year, the Group assesses whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or group of financial assets is impaired and impairment losses are recognised only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or a group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtor or a group of debtors are experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation or observable data indicating a measurable decrease in the estimated future cash flow, such as changes in arrears or economic conditions that correlate with defaults.

- Assets carried at amortised cost

For the loans and receivables category, the amount of loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in profit or loss. If a loan has a floating interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

h. Financial assets (continued)

iv. Impairment of financial assets (continued)

- Assets carried at amortised cost (continued)

If, during a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the reversal of the previously recognised impairment loss is recognised in profit or loss.

- Assets classified as available-for-sale

For assets classified as available-for-sale, if any evidence of impairment exists, the cumulative loss - measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss - is removed from equity and recognised in profit or loss.

If, in a subsequent period, the fair value of debt instruments classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in profit or loss, the impairment loss is reversed through profit or loss.

Impairment losses on equity instruments recognised in the consolidated financial statements are not reversed through profit or loss in a subsequent period.

i. Derivative financial instruments and hedging activities

Derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at their fair values. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument and, if so, on the nature of the item being hedged. The Group designates certain derivatives as either (a) hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge); or (b) hedges of a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge).

At the inception of the transaction, the Group documents the relationship between hedging instruments and hedging items, as well as its risk management objectives and the strategy for undertaking hedging transactions. The Group also documents its assessment, both at the hedge inception and on an ongoing basis, of whether the derivatives used in hedging transactions are highly effective in offsetting changes in the fair value of or the cash flow from hedged items.

The full value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months from the reporting date.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**i. Derivative financial instruments and hedging activities (continued)****i. Fair value hedge**

Changes in the fair values of derivatives that are designated and qualify as fair value hedges are recognised in profit or loss, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The gain or loss relating to the effective portion of such a fair value hedge is recognised in profit or loss in the same line as the changes in fair value of the hedged item to which it relates. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

ii. Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

Amounts accumulated in other comprehensive income within equity are reclassified to profit or loss in the period when the hedged item affects profit or loss. The gain or loss relating to the effective portion of the cash flow hedge is recognised in profit or loss in the same line as the hedged item to which it relates. However, when the forecast transaction that is being hedged results in the recognition of a non-financial asset (for example, inventory or fixed assets), the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset. The deferred amounts are ultimately recognised in the cost of revenue in the case of inventory or in depreciation expense in the case of fixed assets.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to profit or loss.

Changes in the fair value of any derivative instruments that are not designated as, or do not qualify for, hedge accounting are recognised immediately in profit or loss.

As at 31 December 2018, 2017 and 2016, the Group only has hedging instruments designated as cash flow hedges.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**j. Fixed assets**

Land rights are recognised at cost and not depreciated.

Initial legal costs incurred to obtain land rights are recognised as part of the acquisition cost of the land and these costs are not depreciated. Costs related to the renewal of land rights are recognised as intangible assets and amortised over the contractual life of the land rights.

Fixed assets are initially recognised at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment losses. Fixed assets, except for the fixed assets of AI and the AMC entities, are depreciated using the straight-line method to their residual values over their estimated useful lives as follows:

	<u>Years</u>
Buildings	10 - 20
Infrastructure	5 - 30
Power plants	25
Machinery, operational equipment and vehicles	4 - 30
Vessels	5 - 25
Office equipment	4 - 8
Roads and bridges	10 - 20

The fixed assets of AI and the AMC entities are depreciated using the straight-line method over the lesser of the estimated useful lives of the assets, the life of the mine, or the term of the CCA, as follows:

	<u>Years</u>
Buildings	4 - 20
Infrastructure	5 - 20
Machinery, operational equipment and vehicles	2 - 10
Office equipment	10
Crushing and handling facilities	2 - 30
Roads and bridges	2 - 30

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amounts of the replaced parts are derecognised. All other repairs and maintenance are charged to profit or loss during the financial year in which they are incurred.

The useful lives, residual values and depreciation methods of fixed assets are reviewed and adjusted if appropriate, at the end of each financial year. The effects of any revisions are recognised in profit or loss, when the changes arise.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 2I).

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**j. Fixed assets (continued)**

For assets which are no longer utilised or sold or surrendered to the Government, the carrying amounts are eliminated from the consolidated financial statements and the resulting gains or losses on disposals of fixed assets are recognised in profit or loss.

The accumulated costs of the construction of buildings and plant, production facilities and the installation of machinery are capitalised as construction in progress. These costs are reclassified to the fixed asset accounts when the construction or installation is complete. Depreciation is charged from the date on which the assets are ready for use in the manner intended by management.

k. Goodwill

Goodwill arises from the acquisition of subsidiaries and represents the excess of the consideration transferred over the interest in the net fair value of the net identifiable assets, liabilities and contingent liabilities of the acquiree and the fair value of the non-controlling interest in the acquiree.

For the purposes of impairment testing, goodwill acquired in a business combination is allocated to each Cash-Generating Unit ("CGU"), or group of CGUs, that is expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which goodwill is monitored for internal management purposes. Goodwill is monitored at operating segment level.

l. Impairment of non-financial assets

Assets that have an indefinite useful life, for example, goodwill or intangible assets not ready to use, are not subject to amortisation but tested annually for impairment, or more frequently if events or changes in circumstances indicate that the carrying amount may not be recoverable. Assets that have a definite useful life, are subject to amortisation or depreciation, and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised at the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and its value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there is separately identifiable cash flows. Non-financial assets other than goodwill that suffer impairment are reviewed for possible reversal of the impairment at each reporting date.

Reversal of impairment losses for assets other than goodwill is recognised if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment testing was carried out. The reversal of impairment losses will be recognised immediately in profit or loss. The reversal should not result in the carrying amount of an asset exceeding what the depreciated cost would have been had the impairment not been recognised at the date on which the impairment was reversed. Impairment losses relating to goodwill will not be reversed.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**m. Exploration and evaluation assets**

Exploration and evaluation activity involves searching for mineral resources after the Group has obtained legal rights to explore in a specific area, determining the technical feasibility and assessing the commercial viability of an identified resource.

Exploration and evaluation expenditure includes costs that are directly attributable to:

- acquisition of rights to explore;
- topographical, geological, geochemical and geophysical studies;
- exploratory drilling;
- trenching and sampling; and
- activities involved in evaluating the technical feasibility and commercial viability of extracting of mineral resources.

Exploration and evaluation expenditure related to an area of interest is written off as incurred, unless it is capitalised and carried forward, on an area of interest basis, provided that one of the following conditions is met:

- (i) the tenure rights of an area are current and it is considered probable that the costs will be recouped through the successful development and exploitation of the area of interest or, alternatively, through its sale; or
- (ii) exploration activities in the area of interest have not yet reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves and active and significant operations in or in relation to the area of interest are ongoing.

Capitalised costs include costs directly related to exploration and evaluation activities in the relevant area of interest, and exclude physical assets which are recorded in fixed assets. General and administrative costs are allocated to exploration or evaluation assets only to the extent that those costs can be related directly to operational activities in the relevant area of interest.

Capitalised exploration and evaluation expenditure is written off where the above conditions are no longer satisfied.

Identifiable exploration and evaluation assets acquired in a business combination are recognised initially as assets at fair value upon acquisition, and subsequently at cost less impairment charges. Exploration and evaluation expenditure incurred subsequent to the acquisition of an exploration asset in a business combination is accounted for in accordance with the policy outlined above.

As the exploration and evaluation assets are not available for use, they are not depreciated.

Exploration and evaluation assets are assessed for impairment if facts and circumstances indicate that impairment may exist. Exploration and evaluation assets are also tested for impairment once commercial reserves are found, before the assets are transferred to "mining properties - mines under development".

Expenditure incurred before the entity has obtained the legal right to explore a specific area is expensed as incurred.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**n. Mining properties**

Development expenditure incurred by or on behalf of the Group is accumulated separately for each area of interest in which economically recoverable resources have been identified. Such expenditure includes costs directly attributable to the construction of mines and related infrastructure and excludes physical assets and land rights (i.e. right to build, right to cultivate and right to use), which are recorded as fixed assets.

Once a development decision has been taken, the carrying amount of the exploration and evaluation assets in respect of the area of interest is transferred to “mines under development” within mining properties and aggregated with the subsequent development expenditure.

“Mines under development” are reclassified as “mines in production” within mining properties at the end of the commissioning phase, when the mine is capable of operating in the manner intended by management.

No amortisation is recognised for “mines under development” until they are reclassified as “mines in production”.

When further development expenditure is incurred on a mining property after the commencement of production, the expenditure is carried forward as part of “mines in production” when it is probable that additional future economic benefits associated with the expenditure will flow to the Group. Otherwise such expenditure is classified as a cost of production.

“Mines in production” (including reclassified exploration, evaluation and any development expenditure, and payments to acquire mineral rights and leases) are amortised using the units-of-production method, with separate calculations being made for each area of interest. “Mines in production” will be depleted using the units-of-production method on the basis of proven and probable reserves.

Identifiable mining properties acquired in a business combination are initially recognised as assets at their fair value. Development expenses incurred subsequent to the acquisition of the mining properties are accounted for in accordance with the policy outlined above.

“Mines under development” and “mines in production” are tested for impairment in accordance with the policy described in Note 2l.

o. Stripping costs

Stripping costs are the costs of removing overburden from a mine. Stripping costs incurred in the development of a mine before production commences are capitalised as part of the cost of developing the mine, and are subsequently depleted using the units-of-production method on the basis of proven and probable reserves.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**o. Stripping costs (continued)**

Stripping activity conducted during the production phase may provide two benefits that accrue to the Group: (i) coal that is processed into inventory in the current year; and (ii) improved access to the coal body in future periods.

To the extent that the benefit from the stripping activity is realised in the form of inventory produced, the Group accounts for the costs of this stripping activity in accordance with the principles of SFAS No. 14, "Inventories". To the extent the benefit is improved access to the coal body, the Group recognises these costs as a stripping activity asset, if, and only if, all of the following criteria are met:

1. It is probable that the future economic benefit (improved access to the coal body) associated with the stripping activity will flow to the Group;
2. The Group can identify the component of the coal body for which access has been improved; and
3. The costs relating to the stripping activity associated with that component can be measured reliably.

A stripping activity asset is initially measured at cost, which represents the accumulation of costs directly incurred to perform stripping activity that improves access to the identified component of the coal body, plus an allocation of directly attributable overhead costs. If incidental operations are occurring at the same time as the production stripping activity, but are not necessary for the production stripping activity to continue as planned, the costs associated with these incidental operations are not included in the cost of the stripping activity asset.

When the costs of the stripping activity asset and the inventory produced are not separately identifiable, the Group allocates the production stripping costs between the inventory produced and the stripping activity asset using an allocation basis that is based on a relevant production measure. This production measure is calculated for the identified component of the coal body, and is used as a benchmark to identify the extent to which the additional activity of creating a future benefit has taken place. The Group uses the expected volume of waste extracted compared with the actual volume, for a given volume of coal production.

Subsequently, the stripping activity asset is carried at cost less amortisation and impairment losses, if any. The stripping activity asset is amortised using the units-of-production method over the expected useful life of the identified component of the coal body that becomes more accessible as a result of the stripping activity unless another method is more appropriate.

Changes to the expected useful life of the identified component of the coal body are considered changes in estimates and are accounted for on a prospective basis.

A stripping activity asset is accounted for as an addition to, or enhancement of, an existing asset, and therefore is presented as part of "mining properties" in the consolidated statement of financial position.

Any stripping activity asset is included in the cost base of assets when determining a CGU for impairment assessment purposes.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**o. Stripping costs (continued)**

As at the date of these consolidated financial statements, the Group did not have stripping costs during the production phase which qualify for deferral in accordance with the Group's accounting policies.

p. Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year of the reporting date. If not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

q. Leases

The determination of whether an arrangement is, or contains, a lease is made based on the substance of the arrangement and an assessment of whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets, and the arrangement conveys a right to use the asset.

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the term of the lease.

Leases of fixed assets where the Group as lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the lease's commencement at the lower of the fair value of the leased asset or the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included in "finance lease payables".

Each lease payment is allocated between the payables and finance charges. The interest element of the finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the payables for each period.

Fixed assets acquired under finance leases are depreciated over the shorter of the useful life of the asset and the lease term, unless there is reasonable certainty that the Group will obtain ownership of the asset by the end of the lease term, in which case the leased asset is depreciated over its useful life.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**r. Provisions****i. Provision for decommissioning, mine reclamation and mine closure**

Restoration, rehabilitation and environmental expenditure to be incurred related to the remediation of disturbed areas during the production phase are charged to cost of revenue when the obligation arising from the disturbance occurs as extraction progresses.

These obligations are recognised as liabilities when a legal or constructive obligation has arisen from activities which have already been performed. This obligation is initially and subsequently measured at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate, which reflects current market assessments of the time value of money and the risks specific to the obligation. Changes in the measurement of a liability which arises during production are also charged to the cost of revenue, while the increase in the provision due to the passage of time is recognised as a finance cost.

Provision for decommissioning of mining assets and related post-mining activities, as well as the abandonment and decommissioning of other long-lived assets, is made for the legal obligations associated with the retirement of mining related assets and other long lived assets including the decommissioning of buildings, equipment, crushing and handling facilities, infrastructure and other facilities that resulted from the acquisition, construction or development of such assets.

These obligations are recognised as liabilities when a legal or constructive obligation with respect to the retirement of an asset is incurred, with initial and subsequent measurement of the obligation at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation.

An asset retirement cost equivalent to these liabilities is capitalised as part of the related asset's carrying value, and is subsequently depreciated or depleted over the asset's useful life. The increase in these obligations due to the passage of time is recognised within finance cost.

The changes in the measurement of decommissioning obligations that result from changes in the estimated timing or amount of the outflow of resources embodying economic benefits (e.g. cash flow) required to settle the obligations, or a change in the discount rate, will be added to or deducted from the cost of the related asset in the current year. The amount deducted from the cost of the asset should not exceed its carrying amount. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognised immediately in profit or loss. If the adjustment results in an addition to the cost of an asset, the Group will consider whether this is an indication that the new carrying amount of the asset may not be fully recoverable. If there is any such indication, the Group will test the asset for impairment by estimating its recoverable amount and will account for any impairment losses incurred.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**r. Provisions (continued)****ii. Other provisions**

Provisions for restructuring costs, legal claims, or environmental issues that may not involve the retirement of an asset, reclamation and closure of mining areas and others are recognised when:

- the Group has a present legal or constructive obligation as a result of past events;
- it is probable that an outflow of resources will be required to settle the obligation; and
- the amount can be reliably estimated.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. Although the likelihood of an outflow in respect of any one item may be small, it may be probable that some outflow of resources will be needed to settle the class of obligations as a whole. If that is the case, a provision is recognised.

The provision is measured at the present value of the expenditure expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as finance cost.

s. Borrowings

Borrowings are recognised initially at their fair value, net of any transaction costs incurred. Borrowings are subsequently carried at amortised cost, with any difference between the proceeds (net of transaction costs) and the redemption value recognised in profit or loss over the period of the borrowing, using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facilities will be drawn down. In this case, the fee is deferred until the drawdown occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a prepayment for financing costs and amortised over the period of the facility to which it relates. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer the settlement of the liability for at least 12 months from the reporting date.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

t. Borrowing costs

Borrowing costs either directly or indirectly attributable to the acquisition, construction or production of a qualifying asset, are capitalised as part of the cost of that asset until such time as the asset is substantially ready for its intended use or sale. For borrowings directly attributable to a qualifying asset, the amount to be capitalised is determined as the actual borrowing costs incurred during the year, less any income earned on the temporary investment of such borrowings. For borrowings that are not directly attributable to a qualifying asset, the amount to be capitalised is determined by applying a capitalisation rate to the amount spent on the qualifying asset. An entity shall cease capitalising borrowing costs when substantially all of the activities necessary to prepare the qualifying assets are complete.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

u. Employee benefits

i. Post-employment benefits

Pension schemes are classified as either defined contribution plans or defined benefit plans, depending on the economic substance of the plan as derived from its principal terms and conditions. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior years. A defined benefit plan is a pension plan that is not a defined contribution plan. Typically, defined benefit plans define an amount of pension benefit that an employee will receive upon retirement, usually dependent on one or more factors such as age, years of service and compensation.

The Group is required to provide a minimum amount of pension benefit in accordance with Labour Law No. 13/2003 (the "Labour Law") or the Group's Collective Labour Agreement (the "CLA"), whichever is higher. Since the Labour Law or the CLA sets the formula for determining the minimum amount of benefits, in substance pension plans under the Labour Law or the CLA represent defined benefit plans.

The liability recognised in the consolidated statement of financial position in respect of defined benefit pension plans is equivalent to the present value of the defined benefit obligation at the end of the reporting year less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the Projected Unit Credit method.

The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using the interest rates of high quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms of maturity approximating the terms of the related pension obligations. When there is no deep market for such bonds, the market rates of government bonds are used.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**u. Employee benefits (continued)****i. Post-employment benefits (continued)**

Past service costs are recognised immediately in profit or loss. Gains or losses on the curtailment or settlement of a defined benefit plan are recognised when the curtailment or settlement occurs.

Remeasurements arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the year in which they arise. The accumulated remeasurements balance is reported in retained earnings.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they become due. Prepaid contributions are recognised as an asset to the extent that a cash refund or reduction in the future payments is available.

ii. Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or when an employee accepts voluntary redundancy in exchange for certain benefits. The Group recognises termination benefits at the earlier of the following dates: (i) when the Group can no longer withdraw the offer of those benefits; and (ii) when the Group recognises costs for a restructuring that is within the scope of SFAS No. 57, "Provisions, Contingent Liabilities and Contingent Assets" and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the reporting date are discounted to their present value.

v. Share capital

Ordinary shares are classified as equity, and incremental costs directly attributable to the issuance of new shares are shown in equity as a deduction, net of tax, from the proceeds.

w. Earnings per share

Basic earnings per share are calculated by dividing the profit for the year attributable to the equity holders of the Company by the weighted-average number of ordinary shares outstanding during the year.

Diluted earnings per share are calculated by dividing the profit for the year attributable to owners of the parent of the Company adjusted for finance costs and foreign exchange gains or losses on convertible bonds and their related tax effects, by the weighted-average number of issued and fully paid-up shares during the year, assuming that all options have been exercised and all convertible bonds have been converted.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**x. Dividend distributions**

Dividend distributions to the Company's shareholders are recognised as liabilities in the consolidated financial statements in the period when the dividends are declared.

y. Business combinations of entities under common control

Business combinations of entities under common control are accounted for using the pooling-of-interests method.

The difference between the consideration received and the carrying value of each restructuring transaction among entities under common control is recorded as part of additional paid-in capital in the equity section of the consolidated statement of financial position.

z. Revenue and expense recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and services in the ordinary course of the Group's activities. Revenue is shown net of Value-Added Tax ("VAT"), rebates and discounts and after eliminating intra-group sales.

The Group recognises revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the entity and criteria have been met for each of the Group's activities as described below. The Group bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

i. Sales of coal

Revenue from coal sales is recognised when all of the following conditions are fulfilled:

- the Group has transferred to the buyer the significant risks and rewards of ownership of the coal;
- the Group retains neither continuing managerial involvement nor effective control over the coal sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group; and
- the costs incurred or to be incurred with respect to the sales transaction can be measured reliably.

The satisfaction of these conditions depends on the terms of trade with individual customers. Generally the risks and rewards are considered to be transferred to the customer when the title and insurable risk of loss are transferred.

The Group's coal sales may be subject to adjustment based on the inspection of shipments by the customer. In these cases, sales are recognised based on the Group's best estimate of the grade and/or quantity at the time of shipment, and any subsequent adjustments are recorded against revenue. Historically, the differences between estimated and actual grade and/or quantity are not significant.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**z. Revenue and expense recognition (continued)****ii. Rendering of mining and logistics services**

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised with reference to the stage of completion of the transaction at the consolidated statement of financial position date. The outcome of a transaction can be estimated reliably when all of the following conditions are met:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group;
- the stage of completion of the transaction at the end of the reporting year can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When the outcome of a transaction involving the rendering of services cannot be estimated reliably, revenue is recognised only to the extent of the recognised expenses that are recoverable.

iii. Sales of electricity

Revenue generated from sales of electricity is recognised when the electrical output is delivered to the customers.

iv. Finance income

Finance income is recognised using the effective interest method. When a loan or receivable is impaired, the Group reduces the carrying amount to its recoverable amount, being the estimated future cash flows discounted at the original effective interest rate of the instrument, and continues to unwind the discount as finance income. Finance income on impaired loans and receivables is recognised using the original effective interest rate.

v. Rental income

Rental income from operating leases (net of any incentives given to the lessee) is recognised on a straight-line basis over the lease term.

Expenses are recognised as incurred on an accrual basis.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)**aa. Current and deferred income tax**

Tax expense comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax expense is recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted as at the reporting date in the countries where the Company and its subsidiaries operate and generate taxable income. Specifically for AI, the tax rate used is 45%, and for the AMC entities, the tax rate enacted as at the reporting date (2017 and 2016: a progressive rate with a maximum rate of 30%), as stipulated in each CCA. Management periodically evaluates the positions taken in Annual Tax Returns with respect to situations in which the applicable tax regulations are subject to interpretation. It establishes a provision where appropriate on the basis of the amounts expected to be paid to the tax authorities.

For income which is subject to final tax, tax expenses are recognised proportionally with the accounting revenue recognised and presented as part of the operating expenses in the current year, as such tax does not satisfy the criteria of income tax.

Deferred income tax is recognised, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined, except for AI and the AMC entities, using tax rates that have been enacted or substantially enacted at the end of the reporting year and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled. The tax rate used by AI is 45% and the AMC entities is 25% (2017 and 2016: 30%), respectively, in accordance with each CCA.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised.

Deferred income tax is provided on temporary differences arising on investment in subsidiaries and associates, except for deferred income tax liabilities where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not be reversed in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

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2. SIGNIFICANT ACCOUNTING POLICIES (continued)

aa. Current and deferred income tax (continued)

In addition to income tax, the Group also recognises other types of payments to Government that are calculated based on production or revenue (i.e. royalty fees). Exploitation fees and royalty fees are accounted for as income taxes when they have the characteristics of an income tax. This is considered to be the case when the tax is imposed by the Government and the amount payable is based on taxable income rather than on physical quantities produced or a percentage of revenue. For such arrangements, current and deferred income tax is provided for on the same basis as described above for other forms of taxation. The obligations of the Group arising from exploitation fees or royalty arrangements under the CCAs or mining business licences do not satisfy these criteria, and therefore are recognised as current provisions and included in cost of revenue.

ab. Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments and making strategic decisions, has been identified as the Board of Directors.

3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of consolidated financial statements in conformity with Indonesian Financial Accounting Standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the reporting date and the reported amounts of revenue and expenses during the reporting year. Estimates, assumptions and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group has identified the following matters under which significant judgements, estimates and assumptions are made and where actual results may differ from these estimates under different assumptions and conditions and may materially affect the consolidated financial results or financial position of the Group reported in future years.

- Income taxes and other taxes

The calculation of income tax expense for each company within the Group requires judgements and assumptions in determining the capital allowances and deductibility of certain expenses during the estimation process. In particular, the calculation of income tax expense for entities within the Group operating under a CCA involves the interpretation of applicable tax laws and regulations including the CCA.

The revenue of the entities within the Group is sometimes also subject to both final and non-final income tax. Determining the amount of revenue subject to final and non-final tax as well as expenses relating to revenue from the non-final income tax regime requires judgements and estimates.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Income taxes and other taxes (continued)

All judgements and estimates made by management as discussed above may be challenged by the Directorate General of Taxation ("DGT"). As a result, the ultimate tax determination becomes uncertain. The resolution of tax positions taken by the Group can take several years to complete and in some cases it is difficult to predict the ultimate outcome. Where the final outcome of these matters is different from the amounts initially recorded, such differences will have an impact on the income tax and deferred income tax provision in the year in which this determination is made.

Deferred tax assets, including those arising from tax losses carried forward and temporary differences, are recognised only where it is considered more likely than not that they will be recovered, which depends on the generation of sufficient future taxable profits. Similar to "impairment of non-financial assets" discussed below, assumptions about the generation of future taxable profits are heavily affected by management's estimates and assumptions regarding the expected production levels, sales volumes, commodity prices, etc, which are subject to risk and uncertainty, and hence there is a possibility that changes in circumstances will alter the projected future taxable profits.

- Provision for mine rehabilitation, reclamation and closure

As discussed in Note 41 to these consolidated financial statements, Government Regulation No. 78/2010 ("GR No. 78") deals with reclamation and post-mining activities for both Mining Business Licence ("IUP")-Exploration and IUP-Production Operation holders and Ministerial Regulation No. 7/2014 deals with reclamation and post-mining activities in the mineral and coal mining business. The transitional provisions in GR No. 78 make it clear that CCA holders are also required to comply with this regulation. Therefore, AI, the AMC entities, PCS, SCM and LSA have calculated provisions for reclamation and mine closure based on GR No. 78.

As discussed in Note 2r to these consolidated financial statements, restoration, rehabilitation and environmental expenditure to be incurred related to the remediation of disturbed areas during the production phase are charged to cost of revenue when the obligation arising from the disturbance occurs as extraction progresses. The reclamation of disturbed areas and decommissioning of mining assets and other long-lived assets will be undertaken several years in the future and precise requirements are constantly changing to satisfy political, environmental, safety and public expectations. As such, the timing and amounts of future cash flows required to settle the obligations at each of the statement of financial position dates are subject to significant uncertainty. Changes in the expected future costs could have a material impact on the Group's consolidated financial statements.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Reserve estimates

Coal reserves are estimates of the amounts of coal that can be economically and legally extracted from the Group's properties. The Group determines and reports its coal reserves under the principles incorporated in the Australasian Joint Ore Reserves Committee for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC") and the Code of Indonesian Mineral Reserve Committee (*Komite Cadangan Mineral Indonesia* (the "KCMI")), which is based on JORC. Both are in accordance with the Committee for Mineral Reserves International Reporting Standards (the "CRIRSCO") for the reporting of coal resources and reserve estimates. In order to estimate coal reserves, assumptions are required about a range of geological, technical and economic factors, including quantities, production techniques, stripping ratios, production costs, transport costs, commodity demand, commodity prices, future capital expenditure, mine closure obligations and exchange rates.

Estimating the quantity and/or calorific value of coal reserves requires the size, shape and depth of coal seams or fields to be determined by analysing geological data such as drilling samples. This process may require complex and difficult geological judgements to interpret the data.

Because the economic assumptions used to estimate reserves change from year to year and because additional geological data is generated during the course of operations, estimates of reserves may change from year to year. Changes in reported reserves may affect the Group's consolidated financial results and financial position in a number of ways, including the following:

- Asset carrying values may be affected due to changes in the estimated future cash flows.
- Depreciation, depletion and amortisation charged to profit or loss may change where such charges are determined based on the unit-of-production method or where the economic useful lives of assets change.
- Provision for mine closure may change where changes in estimated reserves affect expectations about the timing or cost of these activities.
- The carrying value of deferred tax assets/liabilities may change due to changes in estimates of the likelihood of the recoverability of the tax benefits.

- Impairment of non-financial assets and fixed assets

The recoverable amount of a cash-generating asset or group of assets is measured at the higher of its fair value less costs of disposal or value in use. The determination of fair value less costs of disposal or value in use requires management to make estimates and assumptions regarding expected production levels, sales volumes, commodity prices (considering current and historical prices, price trends and related factors), reserves (see 'Reserve estimates'), operating costs, closure and rehabilitation costs, discount rate and future capital expenditure. These estimates and assumptions are subject to risk and uncertainty, and hence there is a possibility that changes in circumstances will alter these projections, which may have an impact on the recoverable amount of the assets. In such circumstances, some or all of the carrying values of the assets may be further impaired or the impairment charges may be reduced with the impact being recorded in profit or loss.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Pension obligation

The present value of the pension obligation depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost/(income) for pensions include the discount rate, future remuneration changes, employee attrition rates, life expectancy and the expected remaining service periods of employees. Any changes in these assumptions will have an impact on the carrying amount of the pension obligation.

The Group determines the appropriate discount rate at the end of each year. This is the interest rate used to determine the present value of estimated future cash outflows expected to be required to settle the related pension obligation. In determining the appropriate discount rate, the Group considers the interest rates of high quality corporate bonds (or government bonds, if there is no deep market for high quality corporate bonds) that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the terms of the related pension obligation.

Other key assumptions for pension obligation benefits are based in part on current market conditions.

- Fair value estimation

When the fair values of financial assets and financial liabilities recorded in the consolidated statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including Discounted Cash Flow ("DCF") models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgement is required in establishing fair values. Judgements include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments. Refer to Note 43(2) for further disclosures.

- Interests in joint arrangements

Judgement is required to determine when the Group has joint control, which requires an assessment of the relevant activities and when the decisions in relation to those activities require unanimous consent. The Group has determined that the relevant activities for its joint arrangements are those relating to the financial, operating and capital decisions of the arrangement.

Judgement is also required to classify a joint arrangement as either a joint operation or a joint venture. Classifying the arrangement requires the Group to assess its rights and obligations arising from the arrangement. Specifically, it considers:

- The structure of the joint arrangement - whether it is structured through a separate vehicle.
- When the arrangement is structured through a separate vehicle, the Group also considers the rights and obligations arising from:
 - a. The legal form of the separate vehicle;
 - b. The terms of the contractual arrangement; and
 - c. Other relevant facts and circumstances.

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3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (continued)

- Interests in joint arrangements (continued)

This assessment often requires significant judgement. A different conclusion on joint control and also whether the arrangement is a joint operation or a joint venture, may materially impact the consolidated financial statements.

The Group has joint arrangements which are structured through joint ventures, being PT Bhimasena Power Indonesia ("BPI"), PT Tanjung Power Indonesia ("TPI") and Kestrel Coal Group Pty Ltd ("Kestrel"). These structures and the terms of the contractual arrangements indicate that the Group has rights to the net assets of the arrangement. The Group also assessed the other facts and circumstances relating to these arrangements and concluded that the arrangements are joint ventures. Refer to Note 12 for further information.

- Estimating useful lives of fixed assets

The Group estimates the useful lives of its fixed assets based on expected asset utilisation based on business plans and strategies that also consider expected market behaviour. The estimation of the useful lives of fixed assets is based on the Group's assessment of industry practice, internal technical evaluation and experience with similar assets. The estimated useful lives are reviewed at least each financial period-end and are updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence and legal or other limitations on the use of the assets. It is possible, however, that future results of operations could be materially affected by changes in the estimates brought about by changes in the factors mentioned above.

Effective from 1 January 2018, SIS changed the estimated useful lives and residual value of several items of machinery and operational equipment. Refer to Note 11 for further information.

- Fair values of acquired identifiable assets and liabilities assumed from business acquisitions

The fair values of acquired identifiable assets and liabilities assumed from business acquisitions of PC, RC, LC, JC, KC, MC and SBC (together referred to as AMC), TTS and its subsidiaries are determined using valuation techniques. The Group uses its judgement to select a variety of methods and makes assumptions that are mainly based on market conditions existing at the acquisition date. In accordance with the relevant accounting standard, the fair value may be adjusted within twelve months after the acquisition date (Note 4).

4. BUSINESS COMBINATION

a. Acquisition of control over AMC

Effective on 14 October 2016, ATA and Coaltrade purchased 75% of the shares in AMC from BHP Minerals Holdings Pty Ltd and BHP Minerals Asia Pacific Pty Ltd (together referred to as BHP) with a transaction value of US\$120,000, increasing the Group's shareholding in AMC from 25% to 100%.

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4. BUSINESS COMBINATION (continued)**a. Acquisition of control over AMC** (continued)

The following table summarises the consideration paid for the acquisition of AMC, the amounts of the assets acquired and liabilities assumed as at the acquisition date:

	<u>2016</u>
Consideration transferred	
Cash payment	<u>120,000</u>
Recognised fair value of identifiable assets acquired and liabilities assumed	
Cash and cash equivalents	2,002
Other receivables	747
Advances and prepayments	5,646
Inventories	9,930
Fixed assets	169,950
Mining properties	530,266
Prepaid taxes	49,192
Trade payables	(7,492)
Taxes payable	(1,882)
Accrued expenses	(3,065)
Other liabilities	(5,222)
Provision for mine rehabilitation, reclamation and closure	(10,768)
Deferred tax liabilities	<u>(111,332)</u>
Fair value of identifiable net assets acquired	627,972
Consideration transferred	(120,000)
Carrying amount of the previously held investment in associates	<u>(311,135)</u>
Gain on acquisition of AMC	<u>196,837</u>
Purchase consideration:	
- Cash payment	120,000
- Cash and cash equivalents in AMC	<u>(2,002)</u>
Net cash outflow for acquisition of AMC	<u>117,998</u>

The total revenue and net income of AMC from the acquisition date until the reporting date which was recognised in profit or loss for the year ended 31 December 2016 amounted to US\$24,981 and US\$1,686, respectively.

The total revenue and net loss of AMC for the year ended 31 December 2016 as if AMC had already been acquired from 1 January 2016 would have amounted to US\$55,366 and US\$17,480, respectively.

The AMC purchase price was lower than the fair value of net assets purchased, resulting in a gain of US\$196,837 recorded as part of "Other (expenses)/income, net" in profit or loss for the year ended 31 December 2016 (Note 33).

b. Acquisition of control over TTS and its subsidiaries

On 12 October 2016, ATM acquired 68.90% ownership of TTS for a cash payment of Rp34.45 billion (full amount) or equivalent to US\$2,640.

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4. BUSINESS COMBINATION (continued)**b. Acquisition of control over TTS and its subsidiaries** (continued)

The following table summarises the consideration paid for the acquisition of TTS and its subsidiaries, the amounts of the assets acquired and liabilities assumed as at the acquisition date:

	<u>2016</u>
Consideration transferred	
- Cash payment	2,640
- Assumed liabilities	<u>6,444</u>
Total consideration transferred	<u>9,084</u>
Recognised fair value of identifiable assets acquired and liabilities assumed	
Cash and cash equivalents	1,518
Trade receivables	105
Advances and prepayments	219
Other non-current assets	10,903
Trade payables	(87)
Taxes payable	(3)
Accrued expenses	(125)
Other liabilities	<u>(2,482)</u>
Fair value of identifiable net assets acquired	10,048
Consideration transferred	(9,084)
Non-controlling interests	<u>(964)</u>
	<u>-</u>
Purchase consideration:	
- Cash payment	2,640
- Cash and cash equivalents in TTS and its subsidiaries	<u>(1,518)</u>
Net cash outflow for acquisition of TTS and its subsidiaries	<u>1,122</u>

The total revenue and loss of TTS and its subsidiaries from the acquisition date until the reporting date which was recognised in profit or loss for the year ended 31 December 2016 amounted to US\$610 and US\$19, respectively.

The total revenue and loss of TTS and its subsidiaries for the year ended 31 December 2016 if TTS and its subsidiaries had already been acquired from 1 January 2016 would have amounted to US\$1,742 and US\$295, respectively.

The fair value of the identifiable net assets acquired is measured using Level 3 method.

All of the business combination transactions entered into by the Group were in compliance with the relevant Bapepam-LK regulations. The business acquisitions made by the Group were intended to diversify and integrate the Group's operations and to increase the Group's coal reserves as well as expanding to profitable infrastructure projects.

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5. CASH AND CASH EQUIVALENTS

	2018	2017	2016
Cash on hand	<u>66</u>	<u>68</u>	<u>80</u>
Cash in banks - Rupiah			
PT Bank OCBC NISP Tbk	42,167	37,628	35,140
Others (each below US\$25,000)	<u>35,907</u>	<u>26,087</u>	<u>26,627</u>
Total Rupiah accounts	<u>78,074</u>	<u>63,715</u>	<u>61,767</u>
Cash in banks - US Dollars			
PT Bank OCBC NISP Tbk	132,462	357,553	381,655
PT Bank DBS Indonesia	63,284	1,405	46,944
DBS Bank Ltd	53,400	58,883	27,176
PT CIMB Niaga Tbk	33,027	121,382	101,161
PT Bank UOB Indonesia	24,326	50,517	-
PT Bank Rakyat Indonesia (Persero) Tbk ("BRI")	20,718	50,173	-
PT Bank Sumitomo Mitsui Indonesia	10,726	93,073	976
Others (each below US\$25,000)	<u>67,590</u>	<u>44,483</u>	<u>19,599</u>
Total US Dollar accounts	<u>405,533</u>	<u>777,469</u>	<u>577,511</u>
Cash in banks - Other currencies			
Others (each below US\$25,000)	<u>403</u>	<u>700</u>	<u>627</u>
Total cash in banks	<u>484,010</u>	<u>841,884</u>	<u>639,905</u>
Time deposits - Rupiah			
PT Bank Sumitomo Mitsui Indonesia	73,140	37,052	16,715
PT Bank OCBC NISP Tbk	60,472	72,343	21,969
Others (each below US\$25,000)	<u>9,667</u>	<u>8,374</u>	<u>11,885</u>
Total Rupiah time deposits	<u>143,279</u>	<u>117,769</u>	<u>50,569</u>
Time deposits - US Dollars			
PT Bank OCBC NISP Tbk	153,448	133,321	385,644
Sumitomo Mitsui Banking Corporation	58,500	500	-
BRI	30,000	50,000	-
PT Bank UOB Indonesia	26,568	50,000	-
PT Bank Danamon Indonesia Tbk	20,000	6,500	-
Others (each below US\$20,000)	<u>12,025</u>	<u>6,806</u>	<u>750</u>
Total US Dollar time deposits	<u>300,541</u>	<u>247,127</u>	<u>386,394</u>
Total time deposits	<u>443,820</u>	<u>364,896</u>	<u>436,963</u>
Total	<u>927,896</u>	<u>1,206,848</u>	<u>1,076,948</u>

There are no cash and cash equivalents held with related parties.

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5. CASH AND CASH EQUIVALENTS (continued)

The contractual interest rates on time deposits during the years were as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Rupiah	3.50% - 8.50%	3.50% - 8.75%	3.75% - 9.00%
US Dollars	0.29% - 3.30%	0.24% - 2.00%	0.17% - 1.25%

6. RESTRICTED TIME DEPOSITS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Time deposits - Rupiah			
BRI	656	-	-
PT Bank Mandiri (Persero) Tbk ("Bank Mandiri")	<u>82</u>	<u>88</u>	<u>34</u>
Total Rupiah time deposits	<u>738</u>	<u>88</u>	<u>34</u>
Time deposits - US Dollars			
Bank Mandiri	10,197	7,452	2,484
BRI	4,334	-	-
The Hongkong and Shanghai Banking Corporation Ltd ("HSBC")	<u>400</u>	<u>600</u>	<u>600</u>
Total US Dollar time deposits	<u>14,931</u>	<u>8,052</u>	<u>3,084</u>
Total time deposits	<u>15,669</u>	<u>8,140</u>	<u>3,118</u>
Less: current portion	<u>32</u>	<u>34</u>	<u>34</u>
Non-current portion	<u><u>15,637</u></u>	<u><u>8,106</u></u>	<u><u>3,084</u></u>

The contractual interest rates on the restricted time deposits during the years were as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Rupiah	4.25% - 8.00%	4.25% - 6.50%	6.50%
US Dollars	0.20% - 2.75%	0.20% - 0.50%	0.20% - 0.50%

There are no restricted time deposits held with related parties.

The restricted time deposits are placed as security for bank guarantees issued by HSBC (Note 40c) and mine rehabilitation, reclamation and post-mining guarantees with Bank Mandiri and BRI (Note 41).

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7. AVAILABLE-FOR-SALE FINANCIAL ASSETS

Available-for-sale financial assets represent investments in debt securities in the form of Government and corporate bonds with fixed interest rates ranging from 4.75% - 8.50% (2017: 4.63% - 8.50%) per annum with maturities ranging from 17 to 29 years (2017: 4 to 30 years) and investments in unlisted debt securities with maturities of more than one year.

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Beginning balance	253,844	-	-
Additions	22,024	309,354	-
Disposals	(160,244)	(56,051)	-
Amortisation	(626)	(437)	-
Unrealised (losses)/gains on fair value	<u>(10,954)</u>	<u>978</u>	<u>-</u>
Sub-total	<u>104,044</u>	<u>253,844</u>	<u>-</u>
Less: current portion	<u>89,147</u>	<u>247,007</u>	<u>-</u>
Non-current portion	<u>14,897</u>	<u>6,837</u>	<u>-</u>

Fair value movements in available-for-sale financial assets for the year ended 31 December 2018 with net losses amounting to (US\$10,954) (2017: net gains of US\$978 and 2016: US\$nil) are presented in other comprehensive loss.

During 2018, losses on sales of available-for-sale financial assets amounting to US\$4,831 (2017: gains of US\$44 and 2016: US\$nil) were presented as part of "Other (expenses)/income, net" in profit or loss.

Effective interest income earned on available-for-sale financial assets during 2018 amounting to US\$5,811 (2017: US\$3,773 and 2016: US\$nil) was presented as part of "Finance income" in profit or loss.

The maximum exposure to credit risk at the reporting date is the carrying value of the debt securities classified as available-for-sale.

All available-for-sale financial assets are denominated in US Dollars.

None of these financial assets are either past due or impaired.

The Group's management is of the opinion that there are no events or changes of circumstances which indicate permanent decline in the fair value of the available-for-sale financial assets, therefore, no provision for impairment in the value of available-for-sale financial assets is necessary.

Refer Note 43(2) for information on the fair value of available-for-sale financial assets.

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8. TRADE RECEIVABLES

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Third parties	367,479	315,180	328,577
Related parties	<u>3,415</u>	<u>134</u>	<u>243</u>
Sub-total	<u>370,894</u>	<u>315,314</u>	<u>328,820</u>
Less: allowance for impairment losses	<u>-</u>	<u>(596)</u>	<u>(28,131)</u>
Total, net	<u>370,894</u>	<u>314,718</u>	<u>300,689</u>

The Group's trade receivables are denominated in the following currencies:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Rupiah	185,808	129,921	110,439
US Dollars	<u>185,086</u>	<u>185,393</u>	<u>218,381</u>
Total	<u>370,894</u>	<u>315,314</u>	<u>328,820</u>

The aging analysis of trade receivables is as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Current	354,560	297,609	295,232
Overdue by 1 - 30 days	12,488	1,502	1,927
Overdue by 31 - 60 days	1,965	692	835
Overdue by 61 - 90 days	199	56	654
Overdue by more than 90 days	<u>1,682</u>	<u>15,455</u>	<u>30,172</u>
Total	<u>370,894</u>	<u>315,314</u>	<u>328,820</u>

The movement in the allowance for impairment losses during the year is as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Beginning balance	596	28,131	26,528
(Recovery)/increase in allowance	(596)	(1,007)	1,603
Written-off	<u>-</u>	<u>(26,528)</u>	<u>-</u>
Ending balance	<u>-</u>	<u>596</u>	<u>28,131</u>

Based on a review of the status of the individual trade receivables accounts as at 31 December 2018, 2017 and 2016, the Group's management is of the opinion that the trade receivables will be fully collected and therefore no provision for impairment losses is considered necessary.

Refer to Note 35 for information on the details of transactions and balances with related parties.

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9. ADVANCES AND PREPAYMENTS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Advances for the purchase of fixed assets and projects	55,012	48,946	31,004
Advances to suppliers	3,294	8,171	18,505
Prepaid rent and insurance	2,849	2,610	2,820
Others	<u>7,854</u>	<u>6,340</u>	<u>4,455</u>
Total	<u>69,009</u>	<u>66,067</u>	<u>56,784</u>
Less: current portion	<u>12,488</u>	<u>28,034</u>	<u>19,287</u>
Non-current portion	<u>56,521</u>	<u>38,033</u>	<u>37,497</u>

Management believes that all advances are recoverable.

10. INVENTORIES

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Coal inventory	70,781	43,147	33,676
Spare parts	23,485	23,821	23,151
Fuel and lubricants	9,683	10,421	4,818
Tools and supplies	<u>8,056</u>	<u>8,077</u>	<u>11,772</u>
Total	<u>112,005</u>	<u>85,466</u>	<u>73,417</u>

During the year ended 31 December 2018, one of the Group's mining service subsidiaries recognised a decline in the value of spare parts inventory amounted to US\$7,471 as the management believes that this amount cannot be realised. The loss on decline in value of inventory was presented as part of "Other (expenses)/income, net" in profit or loss (Note 33).

Refer to Note 11 for information on the details of decline in value of inventories.

As at 31 December 2018, the Group's inventories were covered by insurance against the risk of material damage with total coverage of US\$77,021 (2017: US\$78,165 and 2016: US\$68,952). The Group's management is of the opinion that the inventories are adequately insured to cover the risk of loss and damage.

The Group's management is of the opinion that the inventories can be either used or sold. Management also believes that the net realisable value of inventories exceeds the carrying value of inventories, and therefore, a provision for obsolete stock and decline in value is not considered necessary as at 31 December 2017 and 2016.

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11. FIXED ASSETS

	2018				
	Beginning balance	Additions	Disposals/ reclassifications	Exchange differences due to financial statements translation	Ending balance
Acquisition costs					
Direct ownership					
Land	78,507	2,639	(4,843)	(616)	75,687
Buildings	99,358	3,107	9,226	(517)	111,174
Infrastructure	216,763	2,340	9,525	(237)	228,391
Power plants	134,419	8,600	-	-	143,019
Machinery, operational equipment and vehicles	1,461,156	145,402	(24,238)	(242)	1,582,078
Vessels	277,211	-	25,565	(295)	302,481
Office equipment	23,767	2,509	(342)	(151)	25,783
Crushing and handling facilities	317,798	610	1,433	-	319,841
Roads and bridges	242,108	-	20,123	-	262,231
Sub-total	2,851,087	165,207	36,449	(2,058)	3,050,685
Construction in progress	133,007	203,204	(69,227)	(1,118)	265,866
Leased assets					
Operational equipment	171,644	116,713	(50,844)	-	237,513
Total	3,155,738	485,124	(83,622)	(3,176)	3,554,064
Accumulated depreciation					
Direct ownership					
Buildings	(32,634)	(8,662)	178	141	(40,977)
Infrastructure	(79,883)	(16,803)	71	61	(96,554)
Power plants	(25,132)	(5,945)	-	-	(31,077)
Machinery, operational equipment and vehicles	(1,024,426)	(106,265)	16,209	119	(1,114,363)
Vessels	(90,641)	(15,944)	1,310	65	(105,210)
Office equipment	(21,605)	(1,129)	470	111	(22,153)
Crushing and handling facilities	(191,066)	(26,815)	274	-	(217,607)
Roads and bridges	(124,921)	(21,206)	78	-	(146,049)
Sub-total	(1,590,308)	(202,769)	18,590	497	(1,773,990)
Leased assets					
Operational equipment	(58,877)	(34,029)	26,462	-	(66,444)
Total	(1,649,185)	(236,798)	45,052	497	(1,840,434)
Accumulated impairment					
Machinery, operational equipment and vehicles	-	(103,929)	-	-	(103,929)
Net book value	1,506,553				1,609,701

	2017				
	Beginning balance	Additions	Disposals/ reclassifications	Exchange differences due to financial statements translation	Ending balance
Acquisition costs					
Direct ownership					
Land	77,824	4	769	(90)	78,507
Buildings	101,913	12,709	(15,159)	(105)	99,358
Infrastructure	211,593	133	5,057	(20)	216,763
Power plants	134,176	28	215	-	134,419
Machinery, operational equipment and vehicles	1,336,393	72,333	52,453	(23)	1,461,156
Vessels	272,862	-	4,384	(35)	277,211
Office equipment	23,790	1,313	(1,317)	(19)	23,767
Crushing and handling facilities	315,597	-	2,201	-	317,798
Roads and bridges	235,165	-	6,923	20	242,108
Sub-total	2,709,313	86,520	55,526	(272)	2,851,087
Construction in progress	103,838	65,213	(35,944)	(100)	133,007
Leased assets					
Operational equipment	175,429	48,546	(52,331)	-	171,644
Total	2,988,580	200,279	(32,749)	(372)	3,155,738
Accumulated depreciation					
Direct ownership					
Buildings	(28,171)	(6,483)	2,002	18	(32,634)
Infrastructure	(65,166)	(14,333)	(394)	10	(79,883)
Power plants	(19,450)	(5,682)	-	-	(25,132)
Machinery, operational equipment and vehicles	(890,607)	(102,946)	(30,883)	10	(1,024,426)
Vessels	(76,797)	(14,925)	1,073	8	(90,641)
Office equipment	(22,552)	(1,063)	1,993	17	(21,605)
Crushing and handling facilities	(164,447)	(26,619)	-	-	(191,066)
Roads and bridges	(108,477)	(16,571)	127	-	(124,921)
Sub-total	(1,375,667)	(188,622)	(26,082)	63	(1,590,308)
Leased assets					
Operational equipment	(68,726)	(26,620)	36,469	-	(58,877)
Total	(1,444,393)	(215,242)	10,387	63	(1,649,185)
Net book value	1,544,187				1,506,553

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11. FIXED ASSETS (continued)

	2016				
	Beginning balance	Acquisition (Note 4)	Additions	Disposals/ reclassifications	Exchange differences due to financial statements translation
Acquisition costs					
<u>Direct ownership</u>					
Land	77,117	88	5	376	238
Buildings	81,942	13,398	3,377	3,023	173
Infrastructure	130,344	69,563	87	11,599	-
Power plants	134,145	-	31	-	-
Machinery, operational equipment and vehicles	1,049,881	7,321	38,462	240,678	51
Vessels	261,141	-	78	11,643	-
Office equipment	23,690	711	420	(1,086)	55
Crushing and handling facilities	302,714	7,939	-	4,944	-
Roads and bridges	176,218	53,265	56	5,677	(51)
Sub-total	2,237,192	152,285	42,516	276,854	466
Construction in progress	304,373	34,396	46,761	(281,994)	302
<u>Leased assets</u>					
Operational equipment	144,109	-	36,335	(5,015)	-
Total	2,685,674	186,681	125,612	(10,155)	768
Accumulated depreciation					
<u>Direct ownership</u>					
Buildings	(20,413)	(2,495)	(5,301)	78	(40)
Infrastructure	(49,335)	(7,958)	(7,873)	-	-
Power plants	(13,770)	-	(5,680)	-	-
Machinery, operational equipment and vehicles	(771,485)	(1,138)	(117,197)	(775)	(12)
Vessels	(63,120)	-	(15,099)	1,422	-
Office equipment	(20,468)	(541)	(1,820)	321	(44)
Crushing and handling facilities	(138,860)	(619)	(25,724)	756	-
Roads and bridges	(91,004)	(3,980)	(13,494)	-	1
Sub-total	(1,168,455)	(16,731)	(192,188)	1,802	(95)
<u>Leased assets</u>					
Operational equipment	(50,108)	-	(22,323)	3,705	-
Total	(1,218,563)	(16,731)	(214,511)	5,507	(95)
Net book value	<u>1,467,111</u>				<u>1,544,187</u>

Depreciation expense for the years ended 31 December 2018, 2017 and 2016 was allocated as follows:

	2018	2017	2016
Cost of revenue (Note 31)	230,915	211,004	210,414
Operating expenses	5,616	3,708	2,420
Capitalised as mining properties	267	530	1,677
Total	<u>236,798</u>	<u>215,242</u>	<u>214,511</u>

The calculation of loss on disposal of fixed assets for the years ended 31 December 2018, 2017 and 2016 was as follows:

	2018	2017	2016
Acquisition costs	83,622	29,387	10,155
Accumulated depreciation	(45,052)	(10,387)	(5,507)
Carrying value of disposed fixed assets	38,570	19,000	4,648
Proceeds from disposal of fixed assets	32,966	6,069	560
Loss on disposal of fixed assets (Note 33)	<u>(5,604)</u>	<u>(12,931)</u>	<u>(4,088)</u>

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11. FIXED ASSETS (continued)

In accordance with the CCA, certain fixed assets of AI recorded in these consolidated financial statements remain the property of the Government. However, AI has an exclusive right to use these assets over the contract period, or their useful lives, whichever is shorter.

In accordance with the Cooperation Agreement, certain fixed assets of IBT in the coal port operation, which are recorded in these consolidated financial statements will become the property of Pelindo III at the end of the 30-year operating period. As disclosed in Note 1d, it is planned that certain fixed assets of IBT which are governed by the Cooperation Agreement will later be treated and governed under a joint venture arrangement.

In August 2008, ATA purchased land amounting to US\$60,000 from PT Cakung Permata Nusa ("Cakung"), PT Cakradenta Agung Pertiwi ("Cakradenta") and PT Astra Agro Lestari Tbk ("AAL") to settle the status of overlapping land plots between the mining area owned by AI and the plantation areas owned by Cakung and Cakradenta of 7,163 hectares. The registration of the transfer of landrights from Cakung, Cakradenta and AAL to ATA has been completed during 2017.

There is no significant difference between the fair value and carrying amount of fixed assets, except for certain land and buildings. The fair value and carrying amount of such land and buildings as at 31 December 2018 is US\$27,718 (2017: US\$27,047 and 2016: US\$20,381) and US\$14,558 (2017: US\$14,672 and 2016: US\$8,831), respectively. The value is based on the latest appraisal report and classified as Level 3 in the fair value hierarchy.

As at 31 December 2018, the Group's fixed assets were insured against all risks of damage, with total coverage of approximately US\$2,615,179 (2017: US\$2,217,891 and 2016: US\$2,002,489), except for fixed assets that could not be insured such as land, the Barito channel dredging and certain construction in progress.

The Group's management is of the opinion that the fixed assets were adequately insured as at 31 December 2018, 2017 and 2016.

As at 31 December 2018, the acquisition cost of fixed assets with a net book value of zero but which are still in use amounted to US\$971,599 (2017: US\$736,589 and 2016: US\$469,188).

As at 31 December 2018, 2017 and 2016, all leased assets were pledged for finance lease payables (Note 20). As at 31 December 2018, certain directly owned fixed assets of the Group with a carrying value of US\$9,798 have been pledged as security for a commercial property loan (2017: asset construction in progress owned by the Group with a carrying value of US\$9,953 and 2016: US\$nil) (Note 21f).

Refer to Note 35 for details of transactions and balances with related parties.

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11. FIXED ASSETS (continued)**Changes in estimated useful lives and residual value**

Effective from 1 January 2018, SIS, a subsidiary of the Company, changed the estimated useful lives and residual value of several items of operational equipment. The details of the changes in estimated useful lives and residual value are as follows:

a. Changes in estimated useful lives

<u>Assets</u>	<u>Before change</u>	<u>After change</u>
Operational equipment	6 - 8 years	5 - 7 years

b. Changes in residual value

<u>Assets</u>	<u>Before change</u>	<u>After change</u>
Operational equipment	5% - 10%	4%

The changes were made based on the SIS' engineering department's review and comparison with general industry practice. The changes were applied prospectively and resulted in an increase in depreciation expense of US\$24,368 for the year ended 31 December 2018.

Construction in progress

Construction in progress represents projects that were not completed as at the date of the consolidated statements of financial position as follows:

<u>Construction in progress</u>	<u>Percentage of completion</u>	<u>Accumulated costs</u>	<u>Estimated completion</u>
<u>31 December 2018</u>			
Roads and bridges	1% - 90%	84,238	February 2019 - December 2019
Infrastructure	10% - 99%	79,784	February 2019 - November 2020
Crushing and handling facilities	5% - 99%	34,793	February 2019 - December 2019
Others (each below US\$20,000)	1% - 99%	67,051	Various
Total		<u>265,866</u>	

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11. FIXED ASSETS (continued)**Construction in progress (continued)**

Construction in progress represents projects that were not completed as at the date of the consolidated statements of financial position as follows: (continued)

<u>Construction in progress</u>	<u>Percentage of completion</u>	<u>Accumulated costs</u>	<u>Estimated completion</u>
<u>31 December 2017</u>			
Roads and bridges	10% - 98%	41,730	February 2018 - September 2019
Infrastructure	1% - 80%	34,024	February 2018 - September 2019
Crushing and handling facilities	1% - 99%	25,177	February 2018 - December 2019
Others (each below US\$20,000)	1% - 99%	<u>32,076</u>	Various
Total		<u>133,007</u>	
<u>31 December 2016</u>			
Road and bridges	10% - 98%	39,339	February 2017 - January 2019
Crushing and handling facilities	72% - 99%	20,844	January 2017 - October 2017
Others (each below US\$20,000)	1% - 98%	<u>43,655</u>	Various
Total		<u>103,838</u>	

In accordance with the Group's accounting policies, management tests its fixed assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Based on the Group's assessment regarding the future use of certain of the fixed assets held by one of the Group's mining services subsidiaries, management performed an assessment of whether these fixed assets were impaired.

The Group used an income approach to assess the recoverable amount of the CGU. The income approach is predicated upon the value of the future cash flows that a business will generate going forward. The DCF method was used which involves projecting cash flows and converting them to a present value equivalent through discounting. The discounting process uses a rate of return that is commensurate with the risk associated with the business or asset and the time value of money.

As at 31 December 2018, the recoverable amount of the CGU was determined based on value-in-use calculations which require the use of assumptions. The valuation technique uses significant unobservable inputs, which represent a Level 3 fair value. The calculations use cash flow projections based on financial budgets approved by management covering a four-year period. Cash flows beyond the four-year period use an estimated growth rate of 0%. Cash flow projections were discounted to a present value using a pre-tax discount rate of 12.67%.

As a result, the recoverable value of the assets is US\$85,246, and therefore, the Group recognised an impairment charge of US\$111,400 in profit or loss which comprised impairment of fixed assets amounting to US\$103,929 and inventory amounting to US\$7,471 (Note 10) which is presented in "Other (expenses)/income, net" in the consolidated profit or loss for the year ended 31 December 2018 (Note 33).

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11. FIXED ASSETS (continued)

As at 31 December 2018, management believes that the provision for impairment losses is adequate to cover the impairment of the carrying values of fixed assets.

12. INVESTMENTS IN JOINT VENTURES

	2018	2017	2016
Kestrel	488,106	-	-
BPI	77,021	42,731	43,684
TPI	11,761	3,079	2,991
Total	576,888	45,810	46,675

As at 31 December 2018, the joint ventures of the Group are as follows:

Name of entity	Domicile	Percentage of ownership	Business activity
Kestrel	Australia	47.99%	Coking coal mine
BPI	Indonesia	34.00%	Electric power generation and transmission
TPI	Indonesia	65.00%	Electric power generation and transmission

As at 31 December 2017 and 2016, the joint ventures of the Group are as follows:

Name of entity	Domicile	Percentage of ownership	Business activity
BPI	Indonesia	34.00%	Electric power generation and transmission
TPI	Indonesia	65.00%	Electric power generation and transmission

On 27 March 2018, ACL, an indirect subsidiary of the Company, and EMR Capital Limited, through a jointly-controlled company (later known as Kestrel Coal Resources Pty Ltd), a wholly-owned subsidiary of Kestrel, entered into a binding agreement with Rio Tinto to acquire a participating interest of 80% in the unincorporated Kestrel Joint Venture ("KJV"). KJV operates a coking coal mine in the Bowen Basin, the world's premier metallurgical coal region.

On 24 July 2018, ACL, Kestrel Coal (EMR) Pty Ltd and Kestrel Coal (EMR) Limited entered into a Shareholders Agreement to jointly own, control and finance Kestrel. As at 31 December 2018, the percentage of ownership of ACL, Kestrel Coal (EMR) Pty Ltd and Kestrel Coal (EMR) Limited is 47.99%, 4.75% and 47.26%, respectively.

On 24 July 2018, ACL, Kestrel and EMR Capital Management Limited also entered into a Warrant Agreement, whereby Kestrel issued certain warrants on shares to ACL and EMR Capital Management Limited in the event certain conditions are met in accordance with the terms contained in the Agreement. The fair value of the warrants issued to ACL as at 31 December 2018 has been included in the carrying value of the investment in Kestrel.

On 1 August 2018, Kestrel's acquisition of an 80% participating interest in KJV became effective.

The Group's joint ventures are private companies and there are no quoted market prices available for their shares.

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12. INVESTMENTS IN JOINT VENTURES (continued)

The table below provides a summary of the financial information of the Group's joint ventures, all of which are unlisted.

	Kestrel			BPI			TPI		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Cash and cash equivalents	200,374	-	-	8,844	14,164	13,934	6,159	2,672	1,849
Current assets	278,363	-	-	28,642	15,041	14,565	9,647	4,573	3,933
Non-current assets	2,316,276	-	-	2,670,667	1,407,572	963,231	442,505	345,158	164,085
Current liabilities	167,031	-	-	50,379	79,296	20,562	141,503	6,316	28,092
Non-current liabilities	1,490,535	-	-	2,422,397	1,217,637	828,751	292,555	338,679	135,325
Revenue	300,561	-	-	1,320,303	502,332	364,082	99,090	185,635	105,630
Depreciation and amortisation	(43,196)	-	-	(456)	(361)	(262)	(98)	(71)	(65)
Finance income	2,745	-	-	124	97	79	699	5	114
Finance costs	(59,643)	-	-	(66,642)	(28,499)	(11,047)	(17,740)	(9,172)	(1,996)
(Loss)/profit before income tax	(168,305)	-	-	87,849	36,184	17,146	12,967	8,802	5,344
(Loss)/profit for the year	(118,127)	-	-	63,273	24,987	10,524	8,833	5,340	3,095
Other comprehensive (loss)/income for the year	(4,232)	-	-	37,580	(27,790)	89,667	4,525	(5,205)	-
Percentage of ownership (%)	47.99	-	-	34.00	34.00	34.00	65.00	65.00	65.00

The reconciliation of the summarised financial information presented to the carrying amount of the Group's interests in the joint ventures is as follows:

	Kestrel			BPI			TPI		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
At the beginning of the year	-	-	-	125,680	128,483	28,292	4,736	4,601	1,506
Addition	1,059,432	-	-	-	-	-	-	-	-
Other comprehensive (loss)/income for the year	(4,232)	-	-	37,580	(27,790)	89,667	4,525	(5,205)	-
(Loss)/profit for the year	(118,127)	-	-	63,273	24,987	10,524	8,833	5,340	3,095
At the end of the year	937,073	-	-	226,533	125,680	128,483	18,094	4,736	4,601
Percentage of ownership (%)	47.99	-	-	34.00	34.00	34.00	65.00	65.00	65.00
	449,701	-	-	77,021	42,731	43,684	11,761	3,079	2,991
Mining properties	26,402	-	-	-	-	-	-	-	-
Warrants	12,003	-	-	-	-	-	-	-	-
Carrying amount of investments in joint ventures	488,106	-	-	77,021	42,731	43,684	11,761	3,079	2,991

As at 31 December 2018, 2017 and 2016, share of other comprehensive income/(loss) recognised by the Group amounted to US\$13,687, (US\$12,832) and US\$30,535, respectively, while share in net (loss)/profit of joint ventures recognised by the Group amounted to (US\$29,436), US\$11,967 and (US\$184), respectively.

The Group has representation on the Board of Directors in the above joint ventures.

The Group's management is of the opinion that there are no events or changes of circumstances which indicate permanent decline in the fair value of the investments, therefore, no provision for impairment in the value of investments in joint ventures is necessary.

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13. MINING PROPERTIES

	2018		
	Mines under development	Mines in production	Total
<u>Acquisition costs</u>			
Beginning balance	1,602,001	1,635,171	3,237,172
Additions	28,770	29,993	58,763
Ending balance	1,630,771	1,665,164	3,295,935
<u>Accumulated amortisation</u>			
Beginning balance	-	(808,942)	(808,942)
Amortisation	-	(117,298)	(117,298)
Ending balance	-	(926,240)	(926,240)
Provision for impairment losses	(72,972)	-	(72,972)
Total carrying amount	1,557,799	738,924	2,296,723
	2017		
	Mines under development	Mines in production	Total
<u>Acquisition costs</u>			
Beginning balance	1,570,578	1,627,683	3,198,261
Additions	31,423	7,488	38,911
Ending balance	1,602,001	1,635,171	3,237,172
<u>Accumulated amortisation</u>			
Beginning balance	-	(688,724)	(688,724)
Amortisation	-	(120,218)	(120,218)
Ending balance	-	(808,942)	(808,942)
Provision for impairment losses	(72,972)	-	(72,972)
Total carrying amount	1,529,029	826,229	2,355,258
	2016		
	Mines under development	Mines in production	Total
<u>Acquisition costs</u>			
Beginning balance	1,036,430	1,599,192	2,635,622
Transfer from mines under development to mines in production	(1,676)	1,676	-
Acquisition (Note 4)	530,266	-	530,266
Additions	5,558	26,815	32,373
Ending balance	1,570,578	1,627,683	3,198,261
<u>Accumulated amortisation</u>			
Beginning balance	-	(567,952)	(567,952)
Amortisation	-	(120,772)	(120,772)
Ending balance	-	(688,724)	(688,724)
Provision for impairment losses	(72,972)	-	(72,972)
Total carrying amount	1,497,606	938,959	2,436,565

All amortisation of mining properties was allocated to cost of revenue (Note 31).

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13. MINING PROPERTIES (continued)

Management is of the opinion that the provision for impairment in the value of mining properties is adequate to cover any losses from the impairment of mining properties as at 31 December 2018, 2017 and 2016.

An impairment charge of US\$nil (2017: US\$nil and 2016: US\$32,267) was presented as part of "Other (expenses)/income, net" during the year (Note 14 and Note 33).

14. GOODWILL

	<u>Amount</u>
Balance as at 31 December 2015	903,553
Impairment charge	<u>(109,943)</u>
Balance as at 31 December 2016	793,610
Impairment charge	<u>-</u>
Balance as at 31 December 2017	793,610
Impairment charge	<u>-</u>
Balance as at 31 December 2018	<u>793,610</u>

Detail of goodwill based on lines of business, is as follows:

	<u>Coal mining and trading</u>	<u>Mining services</u>	<u>Logistics</u>	<u>Total</u>
31 December 2018, 2017 and 2016	<u>675,614</u>	<u>39,665</u>	<u>78,331</u>	<u>793,610</u>

In accordance with the Group's accounting policy, goodwill is tested for impairment annually (Note 21). For the purpose of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows (CGU).

The Group used an income approach to assess the impairment value of certain CGUs. The income approach is predicated upon the value of the future cash flows that a business will generate going forward. The DCF method was used which involves projecting cash flows and converting them to a present value equivalent through discounting. The discounting process uses a rate of return that is commensurate with the risk associated with the business or asset and the time value of money.

On 31 December 2016, the fair value less cost of disposal of all CGUs exceeded their carrying values except for coal mine under development in the coal mining and trading business line and logistics business line. As a result, the Group recognised an impairment charge of US\$142,210 in profit or loss which comprised impairment of goodwill amounting to US\$109,943 and mining properties amounting to US\$32,267 due to changes in the business model of one of the coal mining and trading companies and one of the logistics companies which results in less business in those companies. These impairment losses of goodwill and mining properties are presented in "Other (expenses)/income, net" account in the consolidated profit or loss for the year ended 31 December 2016 (Note 33).

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14. GOODWILL (continued)

The key assumptions used for recoverable amount calculations as at 31 December 2018, 2017 and 2016 are as follows:

	<u>Coal mining and trading</u>	<u>Mining services</u>	<u>Logistics</u>
Growth rate after five years	0%	0%	0%
Post-tax discount rate (for fair value less costs of disposal calculation)	9.5% - 12.0%	10%	9.5%

Management determined the key assumptions based on a combination of past experience and external sources.

The fair value determined in the calculation of the recoverable amount of assets is classified as Level 3 in the fair value hierarchy.

As at 31 December 2018, 2017 and 2016, one of the Group's coal mining and trading companies had the highest sensitivity to changes in key assumptions. The CGU had an excess of recoverable amount, calculated based on the fair value less costs of disposal method, over the carrying value of US\$2,322, US\$3,747 and US\$2,047, respectively. A rise in the discount rate (with other assumptions remaining unchanged) of 0.02% (2017: 0.04% and 2016: 0.02%) would remove the remaining headroom for the relevant CGU.

As at 31 December 2018 and 2017, the Group's management is of the opinion that there are no events or changes in circumstances, which would indicate impairment in the balance of goodwill.

15. TRADE PAYABLES

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Trade payables			
Third parties	<u>341,766</u>	<u>279,163</u>	<u>207,794</u>

Details of trade payables based on currencies are as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Rupiah	243,289	164,168	96,343
US Dollars	97,733	114,733	110,950
Australian Dollars	565	136	187
Singapore Dollars	140	14	169
Euro	38	111	143
Yen	<u>1</u>	<u>1</u>	<u>2</u>
Total	<u>341,766</u>	<u>279,163</u>	<u>207,794</u>

Trade payables balances mainly arose from the purchase of fuel, spare parts, repair and maintenance services, coal transportation services and coal mining services.

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16. ROYALTIES PAYABLE

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Government royalties payable, net	<u>8,516</u>	<u>31,269</u>	<u>42,041</u>

Government royalties payable is subject to audit by the Directorate of Mineral and Coal Business Supervision, the MoEMR. AI has offset recoverable taxes against royalty payments (Note 34b).

17. ACCRUED EXPENSES

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Suppliers and contractors	23,759	18,403	14,565
Freight cost	6,580	3,649	6,285
Interest	5,607	4,162	3,982
Others	<u>16,261</u>	<u>11,182</u>	<u>4,137</u>
Total	<u>52,207</u>	<u>37,396</u>	<u>28,969</u>

18. LOANS FROM A THIRD PARTY

On 22 October 2014, PCS, SCM and LSA, indirect subsidiaries of the Company, entered into Loan Agreements with Far East Investment Ltd ("FEIL"), a third party, under which FEIL provided loan facilities to PCS, SCM and LSA with total amounts of US\$8,760, US\$6,630 and US\$151, respectively. On 23 March 2017, the loan agreement has been amended to change the total amount of the loan facilities for PCS, SCM and LSA to US\$9,065, US\$6,861 and US\$159, respectively. The loans bear interest at the London Interbank Offered Rate ("LIBOR") plus a certain percentage and are not bound by any collateral. The loans are due on 31 August 2020. The agreement has been amended several times with the latest amendment on 13 September 2017 to amend the interest payment schedule. In September 2017, LSA has fully repaid the loan.

As at 31 December 2018, 2017 and 2016, the outstanding balances recorded by PCS, SCM and LSA were as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
PCS	9,046	9,046	8,760
SCM	4,386	6,846	6,630
LSA	<u>-</u>	<u>-</u>	<u>151</u>
Total	<u>13,432</u>	<u>15,892</u>	<u>15,541</u>

During 2018, SCM has made instalment payments amounting to US\$2,460 (2017 and 2016: US\$nil).

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19. DERIVATIVE FINANCIAL INSTRUMENTS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Derivative (liabilities)/assets			
- Fuel hedges	(16,740)	3,300	3,954
- Interest rate swaps	<u>(3,372)</u>	<u>-</u>	<u>-</u>
Total	<u>(20,112)</u>	<u>3,300</u>	<u>3,954</u>
Less:			
Current portion	<u>(17,590)</u>	<u>3,300</u>	<u>3,954</u>
Non-current portion	<u>(2,522)</u>	<u>-</u>	<u>-</u>

Fuel hedges

AI's fuel hedges as at 31 December 2018, 2017 and 2016 were as follows:

	<u>Contract date</u>	<u>Period start</u>	<u>Period end</u>	<u>Quantity (barrels)</u>
Morgan Stanley & Co. International Plc	22 February 2016	1 March 2016	31 December 2016	300,000
DBS Bank Ltd	22 February 2016	1 March 2016	31 December 2016	300,000
Morgan Stanley & Co. International Plc	26 July 2016	1 August 2016	31 December 2016	175,000
Morgan Stanley & Co. International Plc	2 November 2016	1 January 2017	31 December 2017	180,000
Standard Chartered Bank	1 November 2016	1 January 2017	31 December 2017	180,000
Morgan Stanley & Co. International Plc	26 April 2017	1 May 2017	31 December 2017	480,000
Morgan Stanley & Co. International Plc	27 April 2017	1 May 2017	31 December 2017	240,000
Standard Chartered Bank	27 April 2017	1 May 2017	31 December 2017	240,000
CIMB Bank Berhad	27 November 2017	1 January 2018	31 December 2018	180,000
Morgan Stanley & Co. International Plc	5 December 2017	1 January 2018	31 December 2018	180,000
Morgan Stanley & Co. International Plc	5 February 2018	1 February 2018	31 December 2018	165,000
Standard Chartered Bank	9 February 2018	9 February 2018	31 December 2018	88,000
Morgan Stanley & Co. International Plc	12 February 2018	1 March 2018	31 December 2018	80,000
CIMB Bank Berhad	7 November 2018	1 January 2019	31 December 2019	420,000
CIMB Bank Berhad	12 November 2018	1 January 2019	31 December 2019	240,000
Australia and New Zealand Banking Group Ltd	14 November 2018	1 January 2019	31 December 2019	180,000

All derivatives are based on the price GAS OIL-0.05 SINGAPORE-PLATTS ASIA-PACIFIC and the transactions are effective cash flow hedges.

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19. DERIVATIVE FINANCIAL INSTRUMENTS (continued)Interest rate swaps

AI's interest rate swaps as at 31 December 2018 were as follows:

	<u>Counterparties</u>	<u>Notional amount</u>	<u>Maturity date</u>
US\$1,000,000 Facility Agreement	CIMB Bank Berhad, Singapore Branch	188,500	25 August 2021
	OCBC Bank, Singapore Branch	188,500	25 August 2021
	DBS Bank, Singapore Branch	188,500	25 August 2021
	Sumitomo Mitsui Banking Corporation, Singapore Branch	188,500	25 August 2021

AI entered into interest rate swap agreements on a portion of its debt to receive interest at floating rates and to pay interest at fixed rates. AI uses interest rate swap agreements in managing interest risk exposure and the transactions are effective cash flow hedges.

The maximum exposure to credit risk at the reporting date is the fair value of the derivative assets in the consolidated statement of financial position.

Fair value (loss)/gain on hedging instruments designated as cash flow hedges for the years ended 31 December 2018, 2017 and 2016 amounting to (US\$21,111), (US\$1,096) and US\$2,423, respectively, are presented in other comprehensive (loss)/income, while the realised gain/(loss) on the hedges charged to profit or loss amounted to US\$6,939 (2017: US\$5,242 and 2016: US\$7,840) for fuel hedges and (US\$2,002) for interest rate swaps for the year ended 31 December 2018. The fuel hedges and interest rate swaps are presented as part of "Cost of revenue" and "Finance costs" in profit or loss, respectively.

20. FINANCE LEASE PAYABLES

	<u>2018</u>	<u>2017</u>	<u>2016</u>
PT Komatsu Astra Finance	78,195	30,004	25,902
PT Industrial Bank of Japan Verena	23,596	14,279	6,934
PT Mitra Pinasthika Mustika Finance	16,306	9,150	15,250
PT SMFL Leasing Indonesia	13,218	-	-
PT Orix Indonesia Finance	11,749	15,879	3,511
PT JA Mitsui Leasing Indonesia	11,601	6,146	3,716
PT Caterpillar Finance Indonesia	4,628	9,707	14,787
PT Bank Bumiputera	3,400	-	-
Total	<u>162,693</u>	<u>85,165</u>	<u>70,100</u>
Less:			
Current portion	<u>37,404</u>	<u>35,571</u>	<u>30,876</u>
Non-current portion	<u><u>125,289</u></u>	<u><u>49,594</u></u>	<u><u>39,224</u></u>

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20. FINANCE LEASE PAYABLES (continued)

Future minimum lease payments under finance leases together with the present value of the minimum lease payments as at 31 December 2018, 2017 and 2016 were as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Payable not later than one year	44,033	38,122	33,794
Payable later than one year and not later than five years	<u>135,326</u>	<u>52,216</u>	<u>41,812</u>
	<u>179,359</u>	<u>90,338</u>	<u>75,606</u>
Less:			
Future financing charges	<u>16,666</u>	<u>5,173</u>	<u>5,506</u>
Present value of minimum finance lease payments	<u>162,693</u>	<u>85,165</u>	<u>70,100</u>
Payable not later than one year	37,404	35,571	30,876
Payable later than one year and not later than five years	<u>125,289</u>	<u>49,594</u>	<u>39,224</u>
Present value of minimum finance lease payments	<u>162,693</u>	<u>85,165</u>	<u>70,100</u>

During 2018, SIS entered into finance leases of US\$116,713 (2017: US\$48,546 and 2016: US\$36,335) and made lease payments of US\$39,185 (2017: US\$33,481 and 2016: US\$40,985).

The significant general terms and conditions of the finance leases are as follows:

- the Group is restricted from selling, leasing, or otherwise disposing of or ceasing to exercise direct control over the leased assets;
- the Group is restricted from creating or allowing any encumbrance to all or any part of the leased assets; and
- in the event of default, the lessor has the right to repossess the leased assets.

Refer to Note 43(2) for information on the fair value of the finance lease payables as at 31 December 2018, 2017 and 2016.

21. BANK LOANS

	<u>2018</u>	<u>2017</u>	<u>2016</u>
US\$1,000,000 Facility Agreement, net of unamortised financing cost of US\$8,671 (2017: US\$11,923 and 2016: US\$15,175)	687,329	800,077	876,825
US\$380,000 Facility Agreement, net of unamortised financing cost of US\$2,136 (2017: US\$3,644 and 2016: US\$5,152)	207,864	230,356	256,848
US\$350,000 Facility Agreement, net of unamortised financing cost of US\$4,775 (2017: US\$nil and 2016: US\$nil)	164,225	-	-

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21. BANK LOANS (continued)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
US\$200,000 Facility Agreement, net of unamortised financing cost of US\$2,203 (2017: US\$2,938 and 2016: US\$3,672)	107,297	164,562	132,328
US\$120,000 Facility Agreement, net of unamortised financing cost of US\$1,167 (2017: US\$1,561 and 2016: US\$1,953)	82,833	90,439	98,047
Commercial Property Loan	<u>5,650</u>	<u>6,556</u>	-
Total	<u>1,255,198</u>	<u>1,291,990</u>	<u>1,364,048</u>
Less:			
Current portion	<u>182,671</u>	<u>201,160</u>	<u>122,850</u>
Non-current portion	<u>1,072,527</u>	<u>1,090,830</u>	<u>1,241,198</u>

The interest rates on the long-term bank loans are as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
US Dollars	2.9% - 5.3%	2.7% - 3.8%	2.3% - 3.2%
Singapore Dollars	1.9% - 2.6%	1.2% - 2.0%	-

a. US\$1,000,000 Facility Agreement

On 25 August 2014, AI entered into a Credit Facility Agreement of US\$1,000,000 with a syndicate of international banks for which Oversea-Chinese Banking Corporation Limited acts as the facility agent. The Company and Coaltrade act as the Guarantors of this loan facility. This Facility Agreement has been amended, with the most recent amendment dated 31 May 2017.

This loan facility was used for the purposes of loan refinancing. This facility has a final maturity date of 25 August 2021 and is payable on a quarterly basis. This facility bears interest at LIBOR plus a certain percentage.

During 2018, AI has made instalment payments amounting to US\$116,000 (2017: US\$80,000 and 2016: US\$64,000). As at 31 December 2018, the outstanding balance of this loan facility was US\$696,000 (2017: US\$812,000 and 2016: US\$892,000) and is repayable according to the following schedule:

<u>Payment schedule</u> <u>(year)</u>	<u>Payment amount</u>
2019	140,000
2020	144,000
2021	<u>412,000</u>
Total	<u>696,000</u>

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21. BANK LOANS (continued)**a. US\$1,000,000 Facility Agreement** (continued)

In accordance with the loan agreement, AI is required to maintain certain financial ratios. AI is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 31 December 2018, 2017 and 2016, AI is in compliance with the financial ratios and related terms and conditions.

b. US\$380,000 Facility Agreement

On 29 May 2013, AI entered into a Credit Facility Agreement of US\$380,000 with a syndicate of international banks for which DBS Bank Limited acts as the facility agent. The Company and Coaltrade act as the Guarantors for this loan facility. This Facility Agreement has been amended, with the most recent amendment dated 31 May 2017.

This loan facility was used for the purpose of loan refinancing. This facility has a final maturity date of 29 May 2020 and is payable on a quarterly basis. This facility bears interest at LIBOR plus a certain percentage.

During 2018, AI has made instalment payments amounting to US\$24,000 (2017: US\$28,000 and 2016: US\$31,000). As at 31 December 2018, the outstanding balance of this loan facility was US\$210,000 (2017: US\$234,000 and 2016: US\$262,000) and is repayable according to the following schedule:

Payment schedule	
(year)	Payment amount
2019	24,000
2020	186,000
Total	210,000

In accordance with the loan agreement, AI is required to maintain certain financial ratios. AI is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 31 December 2018, 2017 and 2016, AI is in compliance with the financial ratios and related terms and conditions.

c. US\$350,000 Facility Agreement

On 20 August 2018, SIS entered into a Credit Facility Agreement of US\$350,000 with a syndicate of international and national banks for which Bank Mandiri acts as the facility agent. The Company acts as the Guarantor for this loan facility.

This facility consists of a revolving loan facility of US\$350,000 with a final maturity date of 20 August 2020. This facility bears interest at LIBOR plus a certain percentage.

This facility was used for general corporate purposes and for paying transaction costs and expenses associated with the facility.

During 2018, SIS made drawdowns amounting to US\$169,000. As at 31 December 2018, the outstanding balance of this loan facility was US\$169,000.

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21. BANK LOANS (continued)**c. US\$350,000 Facility Agreement** (continued)

In accordance with the loan agreement, SIS is required to maintain certain financial ratios. SIS is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 31 December 2018, SIS is in compliance with the financial ratios and related terms and conditions.

d. US\$200,000 Facility Agreement

On 21 December 2015, SIS entered into a Credit Facility Agreement of US\$200,000 with a syndicate of international and national banks for which DBS Bank Limited acts as the facility agent. The Company acts as the guarantor of this loan facility. A second amendment to this Facility Agreement was executed on 20 August 2018.

This facility consists of a term loan facility of US\$140,000 and a revolving loan facility of US\$60,000 with a final maturity date of 21 December 2021, repayable on a quarterly basis with the first instalment due in September 2016. This facility bears interest at LIBOR plus a certain percentage.

This facility was used for loan refinancing, paying transaction costs and expenses associated with the facility and for other general corporate purposes.

During 2018, SIS has made instalment payments amounting to US\$14,000 (2017: US\$12,500 and 2016: US\$4,000) on the term loan facility. As at 31 December 2018, the outstanding balance of this term loan facility was US\$109,500 (2017: US\$123,500 and 2016: US\$136,000) and is repayable according to the following schedule:

Payment schedule	
(year)	Payment amount
2019	15,500
2020	19,000
2021	<u>75,000</u>
Total	<u>109,500</u>

During 2018, SIS made drawdowns on the revolving loan facility amounting to US\$51,000 (2017: US\$44,000 and 2016: US\$25,000) and repayments of US\$95,000 (2017: US\$nil and 2016: US\$25,000). As at 31 December 2018, there is no outstanding balance on the revolving loan facility (2017: US\$44,000 and 2016: US\$nil).

In accordance with the loan agreement, SIS is required to maintain certain financial ratios. SIS is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 31 December 2018, 2017 and 2016, SIS is in compliance with the financial ratios and related terms and conditions.

e. US\$120,000 Facility Agreement

On 21 December 2015, MBP entered into a Credit Facility Agreement of US\$120,000 with a syndicate of international and national banks for which DBS Bank Limited acts as the facility agent. The Company acts as the guarantor of this loan facility. This Facility Agreement has been amended dated 23 June 2017.

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21. BANK LOANS (continued)**e. US\$120,000 Facility Agreement** (continued)

This facility consists of a term loan facility of US\$100,000 and a revolving loan facility of US\$20,000 with a final maturity date of 21 December 2021, repayable on a quarterly basis with the first instalment due in March 2017. This facility bears interest at LIBOR plus a certain percentage.

These facilities were used for financing capital expenditure, loan refinancing, paying transaction costs and expenses associated with the facility and for other general corporate purposes.

During 2018, MBP has made instalment payments amounting to US\$8,000 (2017: US\$8,000 and 2016: US\$nil) on the term loan facility. As at 31 December 2018, the outstanding balance of this term loan facility was US\$84,000 (2017: US\$92,000 and 2016: US\$100,000) and is repayable according to the following schedule:

Payment schedule	
(year)	Payment amount
2019	8,000
2020	12,000
2021	64,000
Total	84,000

During 2018 and 2017, MBP did not make any drawdown or repayment of the revolving loan facility (2016: MBP made repayments of US\$20,000). As at 31 December 2018, 2017 and 2016, there is no outstanding balance on the revolving loan facility.

In accordance with the loan agreement, MBP is required to maintain certain financial ratios. MBP is also required to comply with certain terms and conditions with regard to its Articles of Association, the nature of the business, corporate actions, financing activities and other matters. As at 31 December 2018, 2017 and 2016, MBP is in compliance with the financial ratios and related terms and conditions.

f. Commercial Property Loan Agreement

Coaltrade entered into a credit facility agreement of S\$10,519,680 (full amount) (equivalent to US\$7,753) with Oversea-Chinese Banking Corporation Limited as set out in the letter of offer dated 16 June 2017 ("OCBC Letter of Offer"). This loan facility was used for purchase of commercial property. The property is pledged for this facility (Note 11). This loan bears interest at the Singapore Swap Offer Rate ("SOR") plus a certain percentage and has a final maturity date ten years from the first drawdown date.

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21. BANK LOANS (continued)**f. Commercial Property Loan Agreement** (continued)

On 11 July 2017, Coaltrade has drawdown S\$9,204,720 (full amount) (equivalent to US\$6,784) from the facility. During 2018, Coaltrade has made instalment payments amounting to S\$1,056,000 (full amount) (equivalent to US\$783) (2017: S\$440,000 (full amount) or equivalent to US\$325). As at 31 December 2018, the outstanding balance of this loan facility was S\$7,708,720 (full amount) (equivalent to US\$5,650) (2017: S\$8,764,720 (full amount) or equivalent to US\$6,556 and 2016: US\$nil) and is repayable according to the following schedule:

Payment schedule (year)	Payment amount
2019	774
2020	774
2021	774
2022	774
2023	774
2024	774
2025	774
2026	232
Total	5,650

Coaltrade is required to comply with certain terms and conditions set out in the OCBC Letter of Offer, including the restriction on the use of the property (Note 11). As at 31 December 2018 and 2017, Coaltrade is in compliance with the related terms and conditions.

Refer to Note 43(2) for information on the fair value of the long-term bank loans as at 31 December 2018, 2017 and 2016.

22. POST-EMPLOYMENT BENEFITS LIABILITIES

Post-employment benefits liabilities as at 31 December 2018, 2017 and 2016 were calculated by PT Padma Radya Aktuaria, independent actuaries, in actuarial reports issued in 2019, 2018 and 2017.

The principal assumptions used in determining the Group's post-employment benefits liabilities are as follows:

	2018	2017	2016
Discount rate	8.00% - 9.50%	6.25% - 7.75%	7.75% - 8.75%
Salary growth rate	5% - 10%	5% - 10%	5% - 10%
Normal retirement age	55	55	55
Mortality rate from the Indonesian Mortality Table	100% TMI3	100% TMI3	100% TMI3

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22. POST-EMPLOYMENT BENEFITS LIABILITIES (continued)

Through its defined benefit pension plans, the Group is exposed to a number of significant risks which are detailed below:

- 1) Changes in discount rate
A decrease in discount rate will increase plan liabilities.
- 2) Salary growth rate
The Group's pension obligations are linked to salary growth rate, and higher salary growth rate will lead to higher liabilities.

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions is as follows:

		Impact on defined benefits obligation	
	<u>Change in assumptions</u>	<u>Increase in assumptions</u>	<u>Decrease in assumptions</u>
<u>31 December 2018</u>			
Discount rate	1%	(5,323)	6,258
Salary growth rate	1%	6,416	(5,791)
<u>31 December 2017</u>			
Discount rate	1%	(5,336)	6,194
Salary growth rate	1%	6,398	(5,615)
<u>31 December 2016</u>			
Discount rate	1%	(3,968)	4,533
Salary growth rate	1%	4,732	(4,209)

Post-employment benefits liabilities recognised in the consolidated statements of financial position as at 31 December 2018, 2017 and 2016 are computed as follows:

	2018	2017	2016
Present value of funded obligations	12,273	13,316	10,209
Fair value of plan assets	(1,226)	(1,327)	(1,320)
Deficit of the funded plans	11,047	11,989	8,889
Present value of unfunded obligations	52,200	52,936	40,638
Total liability	63,247	64,925	49,527

The movement in the Group's fair value of plan assets during the year is as follows:

	2018	2017	2016
At the beginning of the year	1,327	1,320	1,228
Interest income on plan assets	91	110	112
Remeasurement loss:			
Return on plan assets, excluding amount included in interest income	(107)	(92)	(52)
Foreign exchange difference	(85)	(11)	32
At the end of the year	1,226	1,327	1,320

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22. POST-EMPLOYMENT BENEFITS LIABILITIES (continued)

The movement in the present value of the Group's defined benefits obligation is as follows:

	2018	2017	2016
At the beginning of the year	66,252	50,847	52,572
Current service cost	9,997	9,562	10,870
Interest expense	4,195	3,983	4,532
Past service cost	(1,789)	(277)	602
Remeasurements:			
- (Gain)/loss from change in financial assumptions	(6,332)	6,314	(10,259)
- Loss from change in demographic assumptions	2,317	-	-
- Gain from experience adjustments	(161)	(678)	(5,205)
Benefits paid	(5,021)	(2,960)	(3,462)
Foreign exchange difference	(4,985)	(539)	1,197
At the end of the year	64,473	66,252	50,847

The movement in the Group's post-employment benefits liabilities is as follows:

	2018	2017	2016
At the beginning of the year	64,925	49,527	51,344
Current service cost	9,997	9,562	10,870
Interest expense, net	4,104	3,873	4,420
Past service cost	(1,789)	(277)	602
Remeasurements:			
- (Gain)/loss from change in financial assumptions	(6,332)	6,314	(10,259)
- Loss from change in demographic assumptions	2,317	-	-
- Gain from experience adjustments	(161)	(678)	(5,205)
- Return on plan assets, excluding amount included in interest income	107	92	52
Benefits paid	(5,021)	(2,960)	(3,462)
Foreign exchange difference	(4,900)	(528)	1,165
At the end of the year	63,247	64,925	49,527

The amounts recognised in profit or loss are as follows:

	2018	2017	2016
Current service cost	9,997	9,562	10,870
Interest expense, net	4,104	3,873	4,420
Remeasurements:			
- (Gain)/loss from change in financial assumptions	(571)	584	(1,137)
- Gain from experience adjustments	(308)	(387)	(855)
- Loss from change in demographic assumptions	181	-	-
Past service cost	(1,789)	(277)	602
Foreign exchange difference	(4,900)	(528)	1,165
Total	6,714	12,827	15,065

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22. POST-EMPLOYMENT BENEFITS LIABILITIES (continued)

The actual return on plan assets for the years ended 31 December 2018, 2017 and 2016 was a (loss)/gain of (US\$16), US\$18 and US\$60, respectively.

As at 31 December 2018, 2017 and 2016, the plan assets were fully invested in the money market, which did not have a quoted market.

The weighted average duration of the defined benefits plan obligation at 31 December 2018, 2017 and 2016 for the Group are approximately 5 to 25 years, 6 to 20 years and 6 to 18 years, respectively.

Expected maturity analysis of undiscounted pension benefits as at 31 December 2018, 2017 and 2016 is presented below:

	<u>Less than 1 year</u>	<u>Between 1-2 years</u>	<u>Between 2-5 years</u>	<u>Over 5 years</u>	<u>Total</u>
31 December 2018	3,400	5,983	25,766	533,325	568,474
31 December 2017	5,267	4,189	25,457	434,156	469,069
31 December 2016	3,018	5,151	17,698	401,711	427,578

The management of the Group believes that the estimated liability provided for post-employment benefits is adequate to cover the requirements of the Labour Law.

23. PROVISION FOR MINE REHABILITATION, RECLAMATION AND CLOSURE

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Beginning balance	115,724	92,966	72,999
Acquisition	-	-	10,768
Addition	16,788	27,457	11,170
Realisation	(8,501)	(5,721)	(4,008)
Accretion	1,432	1,119	2,047
Foreign exchange difference	(343)	(97)	(10)
Ending balance	<u>125,100</u>	<u>115,724</u>	<u>92,966</u>

The additions in the provision for the years ended 31 December 2018, 2017 and 2016 were allocated to cost of revenue amounting to US\$8,522, US\$17,660 and US\$8,478 (Note 31), respectively, with the remaining amount capitalised to mining properties and fixed assets.

Provision for mine rehabilitation, reclamation and closure represents the provision set up by the Group to comply with the Ministerial Regulation of Environment and Forestry No. P.89/MENLHK/SETJEN/KUM.1/11/2016 (Note 40j) and GR No. 78 (Notes 3 and 41) for rehabilitation of the watershed area, reclamation and post-mining activities for coal mining business. Management is of the opinion that the accumulated provisions as at the reporting date are sufficient to meet the above obligations.

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24. SHARE CAPITAL

All shares in the Company have been listed on the Indonesia Stock Exchange since 16 July 2008. The Company's shareholders as at 31 December 2018, 2017 and 2016 based on the records maintained by PT Kustodian Sentral Efek Indonesia ("KSEI"), the share administrator, were as follows:

Shareholders	Number of shares	Percentage of ownership (%)	Amount
31 December 2018			
PT Adaro Strategic Investments	14,045,425,500	43.91	150,589
Garibaldi Thohir (President Director)	1,976,632,710	6.18	21,193
Edwin Soeryadjaya (President Commissioner)	1,051,738,544	3.29	11,276
Theodore Permadi Rachmat (Vice President Commissioner)	812,422,101	2.54	8,710
Arini Saraswati Subianto (Commissioner)	79,399,250	0.25	851
Christian Ariano Rachmat (Vice President Director)	20,000,000	0.06	214
Julius Aslan (Independent Director)	17,000,000	0.05	182
Chia Ah Hoo (Director)	9,093,500	0.03	97
Other shareholders	13,974,250,395	43.69	149,828
Total	31,985,962,000	100.00	342,940
31 December 2017			
PT Adaro Strategic Investments	14,045,425,500	43.91	150,589
Garibaldi Thohir (President Director)	1,976,632,710	6.18	21,193
Edwin Soeryadjaya (President Commissioner)	1,051,738,544	3.29	11,276
Theodore Permadi Rachmat (Vice President Commissioner)	812,422,101	2.54	8,710
Christian Ariano Rachmat (Vice President Director)	20,000,000	0.06	214
Julius Aslan (Director)	17,000,000	0.05	182
David Tendian (Director)	15,000,000	0.05	161
Arini Saraswati Subianto (Commissioner)	11,718,000	0.04	126
Chia Ah Hoo (Director)	10,093,500	0.03	108
Siswanto Prawiroatmodjo (Director)	750,000	0.01	8
Other shareholders	14,025,181,645	43.84	150,373
Total	31,985,962,000	100.00	342,940
31 December 2016			
PT Adaro Strategic Investments	14,045,425,500	43.91	150,589
Garibaldi Thohir (President Director)	1,976,632,654	6.18	21,193
Edwin Soeryadjaya (President Commissioner)	1,051,738,544	3.29	11,276
Theodore Permadi Rachmat (Vice President Commissioner)	724,420,430	2.26	7,767
Ir. Subianto (Commissioner)	435,000,120	1.36	4,664
David Tendian (Director)	22,000,000	0.07	236
Christian Ariano Rachmat (Vice President Director)	20,000,000	0.06	214
Julius Aslan (Director)	17,000,000	0.05	182
Chia Ah Hoo (Director)	15,693,500	0.05	169
Siswanto Prawiroatmodjo (Director)	750,000	0.01	8
Other shareholders	13,677,301,252	42.76	146,642
Total	31,985,962,000	100.00	342,940

Ordinary shares entitle the holder to participate in dividends and the proceeds on the winding up of the Company in proportion to the number of and amounts paid on the shares held.

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25. ADDITIONAL PAID-IN CAPITAL, NET

The balance of additional paid-in capital as at 31 December 2018, 2017 and 2016 is as follows:

	<u>Amount</u>
Additional paid-in capital from IPO	1,219,813
Share issuance costs	(44,532)
Difference in value from restructuring transactions of entities under common control	<u>(20,787)</u>
Additional paid-in capital, net	<u><u>1,154,494</u></u>

The additional paid-in capital from IPO results from the IPO in 2008.

26. DIFFERENCE IN VALUE FROM TRANSACTIONS WITH NON-CONTROLLING INTERESTS

On 12 May 2016, AI and EGAT International Company Limited ("EGATi") entered into the Subscription Agreement. On 22 November 2016 (the "Closing Date"), AI issued 57,857 shares to EGATi for 11.53% ownership in AI, with a par value of US\$100 (full amount) per share, or a total nominal value amounting to US\$5,786.

The total value of the transaction is US\$325,000. EGATi paid US\$163,500 on the Closing Date and the remaining amount will be paid subject to meeting certain conditions.

This transaction resulted in the dilution of the Group's ownership in AI amounting to 11.53%. As at 31 December 2016, the Group recognised a US\$7,135 credit to equity as the difference in value from transaction with non-controlling interest.

On 15 December 2017, Arindo Holdings has officially listed 26,132,044 shares on the Stock Exchange of Mauritius Ltd ("SEM"), with 5% of the total amount traded and absorbed by the public with an issue price of US\$11.45 (full amount) per share. The listing and trading of this stock generated funds amounted to US\$14,971.

This transaction resulted in the dilution of the Group's ownership in Arindo Holdings by 5%. As at 31 December 2017, the Group recognised a US\$3,046 debit to equity as the difference in value from transactions with non-controlling interests.

Subsequently, on 2 July 2018, Arindo Holdings has officially listed an additional 1,450,758 new shares absorbed by the public with an issue price of US\$11.45 (full amount) per share. The share issuance generated funds amounted to US\$16,611.

This transaction resulted in further dilution of the Group's ownership in Arindo Holdings by 5%. As at 31 December 2018, based on the transaction, the Group recognised a US\$3,540 debit to equity as the difference in value from transactions with non-controlling interests.

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27. RETAINED EARNINGS

	<u>Unappropriated</u>	<u>Appropriated</u>	<u>Total</u>
Balance as at 1 January 2016	<u>1,335,827</u>	<u>51,182</u>	<u>1,387,009</u>
Profit for the year attributable to owners of the parent entity	334,621	-	334,621
Remeasurement of post-employment benefits liabilities, net of tax	7,054	-	7,054
Appropriation of retained earnings	(1,525)	1,525	-
Dividends	<u>(101,075)</u>	<u>-</u>	<u>(101,075)</u>
Balance as at 31 December 2016	<u>1,574,902</u>	<u>52,707</u>	<u>1,627,609</u>
Profit for the year attributable to owners of the parent entity	483,297	-	483,297
Remeasurement of post-employment benefits liabilities, net of tax	(3,767)	-	(3,767)
Appropriation of retained earnings	(3,346)	3,346	-
Dividends	<u>(140,418)</u>	<u>-</u>	<u>(140,418)</u>
Balance as at 31 December 2017	<u>1,910,668</u>	<u>56,053</u>	<u>1,966,721</u>
Profit for the year attributable to owners of the parent entity	417,720	-	417,720
Remeasurement of post-employment benefits liabilities, net of tax	2,017	-	2,017
Appropriation of retained earnings	(4,833)	4,833	-
Dividends	<u>(225,181)</u>	<u>-</u>	<u>(225,181)</u>
Balance as at 31 December 2018	<u>2,100,391</u>	<u>60,886</u>	<u>2,161,277</u>

The Limited Liability Company Law of the Republic of Indonesia No. 40/2007, issued in August 2007, requires the establishment of a general reserve from net income amounting to at least 20% of a company's issued and paid-up capital. This general reserve is presented as appropriated retained earnings in the consolidated statements of financial position. There is no time limit on the establishment of the reserve.

28. DIVIDENDS

At the Company's AGMS held on 18 April 2016, a total cash dividend for 2015 of US\$75,487 (US\$0.00236/share - full amount) was approved. This included a cash dividend for 2015 of US\$35,185 which was approved at the Company's Boards of Commissioners and Directors Meeting held on 17 December 2015 and paid on 15 January 2016. The remaining US\$40,302 final cash dividend for 2015, was paid on 20 May 2016.

At the Company's Boards of Commissioners and Directors Meeting held on 20 December 2016, a cash dividend for 2016 of US\$60,773 (US\$0.0019/share - full amount) was approved. The cash dividend was paid on 13 January 2017.

At the Company's AGMS held on 26 April 2017, a total cash dividend for 2016 of US\$101,075 (US\$0.00316/share - full amount) was approved. This included the cash dividend for 2016 of US\$60,773 which was approved at the Company's Boards of Commissioners and Directors Meeting held on 20 December 2016 and paid on 13 January 2017. The remaining US\$40,302 final cash dividend for 2016, was paid on 26 May 2017.

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28. DIVIDENDS (continued)

At the Company's Boards of Commissioners and Directors Meeting held on 19 December 2017, an interim cash dividend for 2017 of US\$100,116 (US\$0.00313/share - full amount) was approved. The cash dividend was paid on 12 January 2018.

At the Company's AGMS held on 23 April 2018, a total cash dividend for 2017 of US\$250,130 (US\$0.00782/share - full amount) was approved. This included the cash dividend for 2017 of US\$100,116 which was approved at the Company's Boards of Commissioners and Directors Meeting held on 19 December 2017 and paid on 12 January 2018. The remaining US\$150,014 final cash dividend for 2017 was paid on 18 May 2018.

At the Company's Boards of Commissioners and Directors Meeting held on 17 December 2018, an interim cash dividend for 2018 of US\$75,167 (US\$0.00235/share - full amount) was approved. The interim cash dividend was paid on 15 January 2019.

As at 31 December 2018, dividends payable consists of the Company's dividends payable to shareholders amounting to US\$75,167 (2017: US\$100,116 and 2016: US\$60,773) and AI's dividends payable to non-controlling interests amounting to US\$8,606 (2017: US\$11,716 and 2016: US\$10,154).

29. NON-CONTROLLING INTERESTS

2018						
	Beginning balance	Issuance of subsidiaries' shares to non-controlling interests	Share in net profit/(loss)	Dividends	Other comprehensive (loss)/income	Ending balance
PT Bhakti Energi Persada	416,014	-	(2,132)	-	75	413,957
PT Adaro Indonesia	108,136	-	42,484	(47,153)	(2,032)	101,435
Others (each below US\$50,000)	99,207	20,249	19,469	(1,921)	(103)	136,901
Total	623,357	20,249	59,821	(49,074)	(2,060)	652,293
2017						
	Beginning balance	Issuance of subsidiaries' shares to non-controlling interests	Share in net profit/(loss)	Dividends	Other comprehensive (loss)/income	Ending balance
PT Bhakti Energi Persada	418,380	-	(1,872)	-	(494)	416,014
PT Adaro Indonesia	149,008	-	44,333	(85,166)	(39)	108,136
Others (each below US\$50,000)	72,036	18,126	10,680	(1,865)	230	99,207
Total	639,424	18,126	53,141	(87,031)	(303)	623,357
2016						
	Beginning balance	Issuance of subsidiaries' shares to non-controlling interests	Share in net profit/(loss)	Dividends	Other comprehensive income	Ending balance
PT Bhakti Energi Persada	419,321	-	(1,275)	-	334	418,380
PT Adaro Indonesia	-	156,365	3,142	(11,282)	783	149,008
Others (each below US\$50,000)	67,834	964	4,198	(1,038)	78	72,036
Total	487,155	157,329	6,065	(12,320)	1,195	639,424

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30. REVENUE

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Third parties:			
Sales of coal			
Export	2,708,476	2,448,700	1,780,308
Domestic	<u>635,813</u>	<u>592,229</u>	<u>566,988</u>
Sub-total	<u>3,344,289</u>	<u>3,040,929</u>	<u>2,347,296</u>
Mining services			
Domestic	<u>205,873</u>	<u>151,255</u>	<u>111,391</u>
Others			
Export	-	200	600
Domestic	<u>65,334</u>	<u>64,931</u>	<u>63,016</u>
Sub-total	<u>65,334</u>	<u>65,131</u>	<u>63,616</u>
Related parties:			
Sales of coal			
Domestic	3,233	-	-
Others			
Domestic	<u>1,022</u>	<u>1,018</u>	<u>1,936</u>
Sub-total	<u>4,255</u>	<u>1,018</u>	<u>1,936</u>
Total	<u>3,619,751</u>	<u>3,258,333</u>	<u>2,524,239</u>

Details of customers with revenue transactions that represent more than 10% of the total consolidated revenue for the years ended 31 December 2018, 2017 and 2016 are as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Third party:			
TNB Fuel Services Sdn. Bhd	<u>436,584</u>	<u>473,749</u>	<u>236,928</u>

Refer to Note 35 for information on the details of transactions and balances with related parties.

31. COST OF REVENUE

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Sales of coal			
Mining	1,170,953	928,628	793,448
Royalties to Government	378,403	346,141	259,224
Depreciation (Note 11)	182,790	178,623	183,239
Freight and handling costs	185,475	156,879	163,012
Coal processing	176,344	156,617	144,211
Amortisation of mining properties (Note 13)	117,298	120,218	120,772
Mine reclamation and closure costs (Note 23)	8,522	17,660	8,478
Purchase of coal	-	41,089	37,584
Coal inventory (Note 10):			
Beginning balance	43,147	33,676	30,477
Ending balance	<u>(70,781)</u>	<u>(43,147)</u>	<u>(33,676)</u>
Total cost of revenue - sales of coal	<u>2,192,151</u>	<u>1,936,384</u>	<u>1,706,769</u>

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31. COST OF REVENUE (continued)

	2018	2017	2016
Mining services			
Consumables	45,556	36,779	26,594
Repairs and maintenance	43,721	40,993	23,885
Depreciation (Note 11)	38,499	22,928	17,742
Employee costs	25,357	21,085	16,260
Subcontractors	19,891	15,115	8,177
Others	13,269	11,489	9,196
Total cost of revenue - mining services	186,293	148,389	101,854
Others			
Depreciation (Note 11)	9,626	9,453	9,433
Consumables	4,672	4,042	4,741
Others	16,802	18,563	16,166
Total cost of revenue - others	31,100	32,058	30,340
Total	<u>2,409,544</u>	<u>2,116,831</u>	<u>1,838,963</u>

Details of suppliers with purchase transactions that represent more than 10% of the total consolidated revenue for the years ended 31 December 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Third party:			
PT Pamapersada Nusantara ("Pama")	<u>434,124</u>	<u>366,960</u>	<u>282,735</u>

Refer to Note 35 for information on the details of transactions and balances with related parties.

32. OPERATING EXPENSES

	2018	2017	2016
Selling and marketing			
Sales commission	44,751	36,990	27,209
Others	808	514	426
Sub-total	45,559	37,504	27,635
General and administrative			
Employee costs	72,190	63,707	57,423
Professional fees	31,025	47,269	34,345
Final tax	5,479	4,725	4,686
Others	39,745	30,446	27,086
Sub-total	148,439	146,147	123,540
Total	<u>193,998</u>	<u>183,651</u>	<u>151,175</u>

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33. OTHER (EXPENSES)/INCOME, NET

	2018	2017	2016
Loss on impairment of non-financial assets (Notes 10 and 11)	(111,400)	-	-
Foreign exchange (loss)/gain, net	(6,633)	(1,384)	2,117
Loss on disposal of fixed assets (Note 11)	(5,604)	(12,931)	(4,088)
Project establishment fee	-	-	14,405
Gain on acquisition of AMC	-	-	196,837
Loss on goodwill impairment	-	-	(109,943)
Loss on impairment of mining properties (Note 13)	-	-	(32,267)
Business consultancy and agency services	-	8,876	-
Others	(660)	(587)	(13,544)
Total, net	(124,297)	(6,026)	53,517

Refer to Note 35 for information on the details of transactions and balances with related parties.

34. TAXATION**a. Prepaid taxes**

	2018	2017	2016
VAT	89,741	84,291	110,182
Corporate Income Tax ("CIT")	16,069	33,391	30,372
Total	105,810	117,682	140,554
Less: current portion	72,295	74,140	102,614
Non-current portion	33,515	43,542	37,940

b. Recoverable taxes

	2018	2017	2016
Vehicle fuel tax ("PBBKB") receivables	8,789	9,685	7,743
Government non-tax revenue ("PNBP")	-	2,013	2,135
Overpayment of Government royalty	-	523	528
Deposits to Government	15	16	16
Others	-	227	67
Total	8,804	12,464	10,489

According to the CCA, AI is subject to sales tax on services rendered in Indonesia, pursuant to prevailing laws and regulations governing sales tax. With the enactment of Law No. 8 of 1983 which introduced VAT, sales tax was repealed.

AI is of the opinion that VAT is different from sales tax in both form and substance and therefore, VAT is considered to be a new tax. According to the provisions of the CCA, the Government will pay, assume and hold AI harmless from all Indonesian taxes, duties, rentals and royalties levied by the Government imposed after the date of the CCA. Accordingly, AI had offset claims for recoverable VAT against royalties payable.

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34. TAXATION (continued)

b. Recoverable taxes (continued)

In May 2006, the MoEMR, on behalf of the Government, alleged that AI had underpaid royalties due on coal sales for the years from 2001 and demanded payment thereof. AI strongly rejected the allegation because it had discharged its obligation to pay such royalties by way of the offsetting described above. AI accordingly filed an objection at the Jakarta Administrative Court against the MoEMR. In May 2006, the Jakarta Administrative Court granted an order restricting the MoEMR from taking any further administrative steps on the issue until a final and binding judgement is made.

In September 2006, the Jakarta Administrative Court issued a decision in favour of AI. The Jakarta Administrative High Court concurred with the Jakarta Administrative Court in February 2007. On 26 September 2008, on cassation, the Supreme Court concurred with the decision of the Jakarta Administrative High Court. The decision of the Supreme Court is final and binding.

Separately in June 2006, the MoEMR granted authority to the Committee for State Claim Affairs (the "Committee") to pursue the alleged underpayment of royalties on its behalf. In July 2007, the Committee issued a demand for payment to AI. As this is an industry-wide problem, similar demands were made by the Committee to other first-generation coal companies. In September 2007, AI filed an objection with the Jakarta Administrative Court against the Committee. In September 2007, the Jakarta Administrative Court granted an order restricting the Committee from taking any further administrative steps on the issue until a final and binding judgement is made.

On 15 February 2008, the Jakarta Administrative Court issued a decision in favour of AI. The Jakarta Administrative High Court concurred with the Jakarta Administrative Court on 1 July 2008. On 22 July 2009, on cassation, the Supreme Court concurred with the decision of the Jakarta Administrative High Court. On 29 January 2010, the Committee filed a civil review against the decision of the Supreme Court. On 31 January 2011, the Jakarta Administrative Court informed AI that the civil review had passed judgement, where the Supreme Court by its decision No. 47/PK/TUN/2010, dated 20 July 2010 had rejected the request for civil review by the Committee. The Supreme Court decision is therefore final and binding.

In 2008, the Government through the Financial and Development Supervisory Board ("BPKP"), commenced an audit to resolve the dispute on the offsetting of claims for recoverable VAT paid against royalties payable for the fiscal years from 2001 to 2007. In September 2008, in good faith, AI placed a deposit amounting to Rp150 billion (full amount) with the Government to signify its willingness to pay any duly determined unpaid amounts in relation to the dispute (the "Deposit").

In August 2009, BPKP continued its audit in relation to the VAT paid and the amount offset against royalties payable and sales tax for the fiscal years prior to 2001, as well as fiscal years 2001 until 2012.

On 6 December 2012, the Minister of Finance issued Regulation No. 194/PMK.03/2012 ("PMK 194") that governs procedures of collection, remittance and reporting of sales tax and the treatment of VAT and/or Luxury Goods Sales Tax on first generation CCA contractors, including AI. PMK 194 became effective on 1 January 2013. PMK 194 stipulates that the first generation of CCA contractors must collect, remit and report sales tax on the utilisation of particular services as listed in the regulation. PMK 194 also stipulates that the VAT and/or Luxury Goods Sales Tax are not collected on the delivery of VAT-able goods and/or services by a VAT-able Entrepreneur to the contractors, including AI.

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34. TAXATION (continued)

b. Recoverable taxes (continued)

Management is of the opinion that the law ("Undang-Undang") to impose sales tax had been repealed and there is no prevailing law that serves as a valid legal basis for the Government to impose sales tax on AI, despite the fact that the Government had issued PMK 194. For this reason, management believes that sales tax cannot currently be legally imposed on AI.

On 17 December 2014, the DGT, on behalf of the Government, and AI agreed to a settlement of the dispute on the offsetting of claims for recoverable VAT against royalty payable for the fiscal years 2001 to 2007 (the "Settlement"). The Government agreed in the Settlement to acknowledge the offset of claims for recoverable VAT against royalties payable. Due to this settlement, the audit for fiscal years 2001 until 2007 performed by BPKP has been settled.

On 22 December 2014, in furtherance of the Settlement, AI received a letter from the DGT which informed the results of the recalculation of rights and obligations of the Government and AI performed by BPKP for the fiscal years 2001 to 2007. The result shows an overpayment of royalties amounting to Rp7.1 billion (full amount), inclusive of interest of Rp2.3 billion (full amount) and underpayment of sales tax amounting to Rp109.1 billion (full amount) (equivalent to US\$8,770 as at 31 December 2014) for the fiscal years 2001 to 2007 and administrative fees of Rp402.3 million (full amount) (equivalent to US\$32 as at 31 December 2014).

In further settlement dated 29 December 2014, AI had, in good faith, permitted the Government to, at its sole discretion, make use of the aforesaid Deposit to apply to allegedly unpaid sales tax amounting to Rp109.1 billion (full amount) (equivalent to US\$8,770 as at 31 December 2014) for the fiscal years 2001 to 2007 and Rp59.3 billion (full amount) (equivalent to US\$4,770 as at 31 December 2014) for the fiscal year 2008.

However, management does not agree with the assessment with regards to the underpayment of sales tax determined by BPKP since the law to impose sales tax had been repealed in 1983 and there is no prevailing law that serves as a valid legal basis for the Government to impose sales tax on AI, despite the fact that the Government had issued PMK 194. Because of this reason, management believes that sales tax cannot currently be legally imposed on AI, and that AI should take steps to recover the sales tax in accordance with the applicable law by applying the reimbursement and offset provisions in the CCA.

On 5 January 2015, AI received a letter from the Head of State Asset and Auction Office Jakarta V ("KPKNL") informing AI that the remaining balance of the Deposit stands at Rp214.6 million (full amount). As at 31 December 2018, 2017 and 2016, the balance of the Deposit was Rp214.6 million (full amount) with an equivalent amount of US\$15, US\$16 and US\$16, respectively.

Based on the minutes of meeting that was held on 8 April 2016 and attended by BPKP, the Audit Board of the Republic of Indonesia (Badan Pemeriksa Keuangan Republik Indonesia/("BPK RI")), Ministry of Finance and MoEMR, the Government agreed to acknowledge the offset of claims for the PBBKB against royalties payable.

In further settlement on 15 December 2016, the DGT, MoEMR, and AI agreed to a settlement of the dispute on the offsetting of claims for recoverable VAT and PBBKB against royalties payable for the fiscal years 2008 to 2012 and the sales tax settlement for the fiscal years 2001 to 2016. Due to this settlement, the audit for fiscal years 2008 to 2012 performed by BPKP has been settled.

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34. TAXATION (continued)

b. Recoverable taxes (continued)

AI in good faith and in the spirit to reach settlement on the difference of opinion and to put aside the arrangement that has been previously agreed between AI and the Government, at the request of the Government has finally conceded to pay sales tax. On 22 December 2016, AI has paid all sales tax that is due according to the Government amounting to Rp348.7 billion (full amount) (equivalent to US\$26,280). For the year ended 31 December 2016, AI has recorded the sales tax amounted to US\$50,104 and presented it as "Cost of Revenue" in profit or loss. Based on the above minutes of meeting, the total sales tax amount is treated as a deductible expense in the CIT calculation as long as AI has paid before issuance of a Tax Assessment Letter.

In further settlement on 22 December 2017, the DGT, MoEMR and AI agreed to a settlement of the dispute on the offsetting of claims for recoverable taxes against royalties payable for the fiscal years 2013 until 2015, except for the offsetting of regional taxes against royalties payable for which all parties agreed to resolve the dispute in another separate settlement meeting. Due to this settlement, the audit for fiscal years 2013 until 2015 performed by BPKP has been settled, for which the audit result of royalty under payment was partially offset with AI's overpayment of royalties for fiscal years 2001 to 2007 amounted to Rp7.1 billion (full amount).

In the final settlement on 22 June 2018, the DGT, MoEMR and AI agreed to acknowledge the offsetting of regional tax against royalties payable.

For the year ended 31 December 2017, AI had offset claims for recoverable VAT amounting to US\$52 (2016: US\$601). From 1 January 2001 up to 31 December 2016, Adaro had offset a cumulative amount of US\$753,750.

The PBBKB receivables represent the balance of PBBKB that is reimbursable by the Government. The Government has confirmed that PBBKB is a new tax and therefore reimbursable according to the provisions of the CCA. For the year ended 31 December 2018, AI has offset reimbursement claims for PBBKB against royalties payable to the Government amounting to US\$26,624 (2017: US\$17,196 and 2016: US\$16,955).

The Government non-tax revenue ("PNBP") represents charges for stevedoring services to the Government. AI believes it is reimbursable by the Government since the nature is similar with PBBKB, which according to the CCA, the Government will pay and assume and hold AI harmless from all Indonesian taxes, duties, rentals and royalties levied by the Government imposed after the date of the CCA. For the year ended 31 December 2017, AI had offset reimbursement claims for PNBP against royalties payable to the Government amounting to US\$3,964 (2016: US\$1,060).

Based on the Amendment to the CCA (Note 1c), AI is allowed to offset royalties payable with reimbursement claims for PBBKB and any new taxes, duties and PNBP levied by the Government after the date of the Amendment to the CCA.

For the year ended 31 December 2018, AI has offset the reimbursement claims for recoverable VAT, regional taxes and PNBP arising prior to the Amendment to the CCA against royalties payable amounting to US\$2,171. After the Amendment to the CCA, AI recorded and presented these amounts as part of "Cost of revenue" in profit or loss.

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34. TAXATION (continued)

c. Taxes payable

	<u>2018</u>	<u>2017</u>	<u>2016</u>
CIT	69,037	47,188	106,450
Other taxes:			
- Income tax articles 23 and 26	5,207	4,811	9,469
- VAT	1,483	1,112	815
- Others	<u>7,221</u>	<u>3,602</u>	<u>2,247</u>
Total	<u>82,948</u>	<u>56,713</u>	<u>118,981</u>

d. Income tax expense

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Current income tax	425,526	427,922	245,844
Deferred income tax	(83,048)	(44,000)	(45,820)
Income tax expense from tax audit adjustments	<u>979</u>	<u>9,171</u>	<u>5,810</u>
Total consolidated income tax expense	<u>343,457</u>	<u>393,093</u>	<u>205,834</u>

The tax on consolidated profit before income tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the consolidated subsidiaries as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Consolidated profit before income tax	<u>820,998</u>	<u>929,531</u>	<u>546,520</u>
Tax calculated at applicable tax rates	380,950	412,566	211,941
Income subject to final tax	(77,802)	(60,781)	(58,655)
Non-deductible expenses	51,094	47,140	55,903
Tax facility	(2,505)	(4,124)	(4,904)
Tax audit assessments	979	9,171	5,810
Others	<u>(9,259)</u>	<u>(10,879)</u>	<u>(4,261)</u>
Consolidated income tax expense	<u>343,457</u>	<u>393,093</u>	<u>205,834</u>

The reconciliation between the consolidated profit before income tax and estimated consolidated taxable income is as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Consolidated profit before income tax	820,998	929,531	546,520
Profit before income tax - Subsidiaries	(902,617)	(928,099)	(589,418)
Adjustment for consolidation elimination entries	<u>67,549</u>	<u>(13,499)</u>	<u>20,085</u>
Loss before income tax - the Company	<u>(14,070)</u>	<u>(12,067)</u>	<u>(22,813)</u>
Fiscal corrections:			
Income subject to final tax	(1,915)	(792)	(179)
Non-deductible expenses	<u>19,130</u>	<u>23,731</u>	<u>33,526</u>
Sub-total	<u>17,215</u>	<u>22,939</u>	<u>33,347</u>

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34. TAXATION (continued)

d. Income tax expense (continued)

The reconciliation between the consolidated profit before income tax and estimated consolidated taxable income is as follows: (continued)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Taxable income - the Company	<u>3,145</u>	<u>10,872</u>	<u>10,534</u>
Current income tax - the Company	786	2,718	2,634
Current income tax - Subsidiaries	<u>424,740</u>	<u>425,204</u>	<u>243,210</u>
Consolidated current income tax	<u>425,526</u>	<u>427,922</u>	<u>245,844</u>

Current income tax computations are based on estimated taxable income. The amounts may be adjusted when the Annual Tax Returns are filed to the tax office.

The income tax relating to other comprehensive income during the year is as follows:

	<u>2018</u>		
	<u>Before tax</u>	<u>Tax charge</u>	<u>After tax</u>
Post-employment benefits liabilities	(3,371)	1,228	(2,143)
Cash flow hedges	<u>21,111</u>	<u>(9,500)</u>	<u>11,611</u>
Total	<u>17,740</u>	<u>(8,272)</u>	<u>9,468</u>
	<u>2017</u>		
	<u>Before tax</u>	<u>Tax charge</u>	<u>After tax</u>
Post-employment benefits liabilities	5,531	(1,618)	3,913
Cash flow hedges	<u>1,096</u>	<u>(493)</u>	<u>603</u>
Total	<u>6,627</u>	<u>(2,111)</u>	<u>4,516</u>
	<u>2016</u>		
	<u>Before tax</u>	<u>Tax charge</u>	<u>After tax</u>
Post-employment benefits liabilities	(13,472)	5,437	(8,035)
Cash flow hedges	<u>(2,423)</u>	<u>1,090</u>	<u>(1,333)</u>
Total	<u>(15,895)</u>	<u>6,527</u>	<u>(9,368)</u>

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34. TAXATION (continued)

e. Deferred tax assets/(liabilities)

	2018				
	Beginning balance	(Charged)/ credited to profit or loss	(Charged)/ credited to equity	Transfer to/ from deferred tax assets/ (liabilities)	Ending balance
Deferred tax assets					
Tax losses carried forward	145	(145)	-	-	-
Difference between the commercial and tax book values of fixed assets	4,148	14,091	-	-	18,239
Differences in fixed assets under finance leases and lease instalments	(6,965)	4,806	-	-	(2,159)
Post-employment benefits liabilities	11,190	(354)	(267)	-	10,569
Others	248	439	-	-	687
Deferred tax assets at the end of the year	8,766	18,837	(267)	-	27,336
Deferred tax liabilities					
Capitalised borrowing cost	(16,938)	4,622	-	-	(12,316)
Post-employment benefits liabilities	191	228	(961)	-	(542)
Mining properties	(518,594)	41,300	-	-	(477,294)
Changes in the fair values of derivative financial instruments	(597)	-	9,500	-	8,903
Differences between the commercial and tax book values of fixed assets	(77,710)	17,622	-	-	(60,088)
Tax losses carried forward	98	79	-	-	177
Provision for mine closure	5,890	713	-	-	6,603
Others	(4,593)	(353)	-	-	(4,946)
Deferred tax liabilities at the end of the year	(612,253)	64,211	8,539	-	(539,503)
2017					
	Beginning balance	(Charged)/ credited to profit or loss	(Charged)/ credited to equity	Transfer to/ from deferred tax assets/ (liabilities)	Ending balance
Deferred tax assets					
Tax losses carried forward	1,963	(103)	-	(1,715)	145
Difference between the commercial and tax book values of fixed assets	(1,655)	(796)	-	6,599	4,148
Differences in fixed assets under finance leases and lease instalments	-	2,187	-	(9,152)	(6,965)
Post-employment benefits liabilities	3,458	2,857	916	3,959	11,190
Others	-	248	-	-	248
Deferred tax assets at the end of the year	3,766	4,393	916	(309)	8,766
Deferred tax liabilities					
Capitalised borrowing cost	(19,533)	2,595	-	-	(16,938)
Post-employment benefits liabilities	2,137	1,311	702	(3,959)	191
Mining properties	(542,392)	23,798	-	-	(518,594)
Changes in the fair values of derivative financial instruments	(1,090)	-	493	-	(597)
Differences between the commercial and tax book values of fixed assets	(89,121)	18,010	-	(6,599)	(77,710)
Differences in fixed assets under finance leases and lease instalments	(9,152)	-	-	9,152	-
Provision for impairment of trade receivables	11,937	(11,937)	-	-	-
Tax losses carried forward	2,113	(3,730)	-	1,715	98
Provision for mine closure	985	4,905	-	-	5,890
Others	(9,248)	4,655	-	-	(4,593)
Deferred tax liabilities at the end of the year	(653,364)	39,607	1,195	309	(612,253)

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34. TAXATION (continued)

e. Deferred tax assets/(liabilities) (continued)

	2016					
	Beginning balance	(Charged)/ credited to profit or loss	(Charged)/ credited to equity	Acquisition of subsidiaries	Transfer to/ from deferred tax assets/ (liabilities)	Ending balance
Deferred tax assets						
Tax losses carried forward	-	1,963	-	-	-	1,963
Difference between the commercial and tax book values of fixed assets	3,135	(4,790)	-	-	-	(1,655)
Differences in fixed assets under finance leases and lease instalments	(4,814)	-	-	-	4,814	-
Post-employment benefits liabilities	6,425	(2,898)	(69)	-	-	3,458
Deferred tax assets at the end of the year	4,746	(5,725)	(69)	-	4,814	3,766
Deferred tax liabilities						
Capitalised borrowing cost	(19,923)	390	-	-	-	(19,533)
Post-employment benefits liabilities	1,633	5,872	(5,368)	-	-	2,137
Mining properties	(466,205)	35,145	-	(111,332)	-	(542,392)
Changes in the fair values of derivative financial instruments	-	-	(1,090)	-	-	(1,090)
Differences between the commercial and tax book values of fixed assets	(107,838)	18,717	-	-	-	(89,121)
Differences in fixed assets under finance leases and lease instalments	-	(4,338)	-	-	(4,814)	(9,152)
Provision for impairment of trade receivables	11,937	-	-	-	-	11,937
Tax losses carried forward	4,847	(2,734)	-	-	-	2,113
Provision for mine closure	882	103	-	-	-	985
Others	(7,638)	(1,610)	-	-	-	(9,248)
Deferred tax liabilities at the end of the year	(582,305)	51,545	(6,458)	(111,332)	(4,814)	(653,364)

Due to the fact that several subsidiaries are in a loss position and only function as head offices, there is a limitation on the future use of tax losses carried forward and also uncertainty as to whether the deferred tax assets will be realised. Thus, a portion of the deferred tax assets relating to tax losses carried forward and post-employment benefits liabilities have not been recognised in these consolidated financial statements.

All of the deferred tax assets are expected to be recovered after 12 months.

The analysis of deferred tax liabilities is as follows:

	2018	2017	2016
Deferred tax liabilities to be settled within 12 months	34,328	42,709	48,732
Deferred tax liabilities to be settled after 12 months	505,175	569,544	604,632
Total	539,503	612,253	653,364

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34. TAXATION (continued)**f. Administration**

Under the Taxation Laws of Indonesia, companies within the Group which are domiciled in Indonesia calculate and pay tax on the basis of self assessment. The DGT may assess or amend taxes within five years of the time the tax becomes due.

g. Tax assessment letters

Below is a summary of the tax assessment letters received by SIS for which the status has not yet been completed:

<u>Tax type</u>	<u>Fiscal year</u>	<u>Tax assessment letter</u>	<u>Date of tax assessment letter</u>	<u>Dispute amount in US Dollars</u>	<u>Status</u>
CIT	2014	Overpayment	18 May 2016	963	Appeal
VAT	January-December 2014	Overpayment	15 March 2016	161	Appeal
CIT	2015	Overpayment	20 March 2017	1,157	Appeal
VAT	January-December 2015	Overpayment	25 January 2017	590	Appeal
CIT	2016	Overpayment	9 April 2018	1,153	Objection
VAT	January-December 2016	Overpayment	19 December 2017	115	Appeal

Tax audits of the Group

As at the completion date of these consolidated financial statements, the Company, AP, AL, HBI, IMPT, JPI, LSA, SCM, PCS, AI, SIS, DSM, ATA, LC, APM, ATM, AML and RLI were being audited by the DGT for all types of taxes for fiscal year 2018. These entities have not yet received the tax audit results. Management is of the opinion that the tax audit results will not have a material impact on the Group's consolidated financial statements.

35. TRANSACTIONS AND BALANCES WITH RELATED PARTIES**a. Nature of relationships**

<u>Related parties</u>	<u>Nature of relationships</u>
PT Adaro Strategic Investments	Majority shareholder
Subsidiaries and joint ventures	See Notes 1 and 12
Key management personnel	Directors and Commissioners of the Group
PT Rahman Abdijaya ("RA")	Other related party

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35. TRANSACTIONS AND BALANCES WITH RELATED PARTIES (continued)

b. Details of transactions and balances

In the normal course of business, the Group engages in transactions with related parties, primarily consisting of purchases of services and other financial transactions.

	<u>2018</u>	<u>2017</u>	<u>2016</u>
<u>Trade receivables (Note 8)</u>			
Sales of coal:			
TPI	3,272	-	-
Management fees:			
BPI	80	79	-
TPI	63	55	243
Total	<u>3,415</u>	<u>134</u>	<u>243</u>
As a percentage of total consolidated assets	<u>0.048%</u>	<u>0.002%</u>	<u>0.004%</u>
<u>Fixed assets (Note 11)</u>			
Acquisition of fixed assets:			
RA	-	-	65,674
As a percentage of total consolidated assets	<u>0.000%</u>	<u>0.000%</u>	<u>1.010%</u>
<u>Revenue (Note 30)</u>			
Sales of coal:			
TPI	3,233	-	-
Management and consulting services:			
TPI	538	541	495
BPI	484	477	1,441
Total	<u>4,255</u>	<u>1,018</u>	<u>1,936</u>
As a percentage of total consolidated revenue	<u>0.12%</u>	<u>0.03%</u>	<u>0.08%</u>
<u>Cost of revenue (Note 31)</u>			
Mining services:			
RA	-	-	13,236
As a percentage of total consolidated cost of revenue	<u>0.00%</u>	<u>0.00%</u>	<u>0.72%</u>

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35. TRANSACTIONS AND BALANCES WITH RELATED PARTIES (continued)

b. Details of transactions and balances (continued)

In the normal course of business, the Group engages in transactions with related parties, primarily consisting of purchases of services and other financial transactions. (continued)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Other income (Note 33)			
Business consultancy and agency services:			
TPI	-	8,876	-
Project establishment fee:			
BPI	-	-	15,405
Total	<u><u>-</u></u>	<u><u>8,876</u></u>	<u><u>15,405</u></u>
As a percentage of total consolidated other (expenses)/income, net	<u><u>-</u></u>	<u><u>147.30%</u></u>	<u><u>28.79%</u></u>

Other income of business consultancy and agency services represents AP's income for services provided to TPI and BPI related to the South Kalimantan and Central Java Coal-Fired Steam Power Producer Project, respectively.

The Group's pricing policy related to transactions with related parties is set based on contracted price.

c. Key management compensation

The Boards of Commissioners and Directors of the Group are considered key management personnel.

The compensation for the Boards of Commissioners and Directors of the Group for the years ended 31 December 2018, 2017 and 2016, was as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Remuneration	23,579	22,809	21,006
Post-employment benefits	1,746	2,208	1,852
Total	<u><u>25,325</u></u>	<u><u>25,017</u></u>	<u><u>22,858</u></u>

The Boards of Commissioners and Directors do not receive any other benefits such as management stock options.

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36. EARNINGS PER SHARE

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Consolidated profit for the year attributable to the owners of the parent entity	417,720	483,297	334,621
Weighted average number of ordinary shares outstanding (in thousands of shares)	<u>31,985,962</u>	<u>31,985,962</u>	<u>31,985,962</u>
Basic earnings per share attributable to the owners of the parent entity (full amount)	<u>0.01306</u>	<u>0.01511</u>	<u>0.01046</u>
Weighted average number of ordinary shares used as the denominator in calculating basic earnings per share (in thousands of shares)	31,985,962	31,985,962	31,985,962
Adjustments for calculation of diluted earnings per share (in thousands of shares):			
Share options (Note 40s)	<u>2,381,730</u>	<u>2,381,730</u>	<u>2,381,730</u>
Weighted average number of ordinary shares used as the denominator in calculating diluted earnings per share (in thousands of shares)	<u>34,367,692</u>	<u>34,367,692</u>	<u>34,367,692</u>
Diluted earnings per share attributable to the owners of the parent entity (full amount)	<u>0.01215</u>	<u>0.01406</u>	<u>0.00974</u>

37. NET MONETARY ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES

As at 31 December 2018, 2017 and 2016, the Group had monetary assets and liabilities denominated in currencies other than US Dollars as follows:

	<u>2018</u>					
	<u>in Rp'000</u>	<u>S\$ (full amount)</u>	<u>Euro (full amount)</u>	<u>A\$ (full amount)</u>	<u>Yen (full amount)</u>	<u>Equivalent in US\$</u>
Monetary assets						
Cash and cash equivalents	3,208,183,884	552,478	1,612	-	-	221,819
Trade receivables	2,693,208,884	-	-	-	-	185,808
Prepaid taxes	1,323,167,374	-	-	-	-	91,372
Restricted time deposits	10,681,429	-	-	-	-	738
Other non-current assets	<u>195,195,003</u>	-	-	-	-	<u>13,479</u>
Total	<u>7,430,436,574</u>	<u>552,478</u>	<u>1,612</u>	-	-	<u>513,216</u>
Monetary liabilities						
Trade payables	(3,525,083,986)	(190,835)	(33,519)	(780,036)	(118,250)	(244,033)
Accrued expenses	(605,787,357)	-	-	-	-	(41,832)
Taxes payable	(241,492,406)	-	-	-	-	(16,667)
Short-term employee benefits liabilities	(34,778,807)	-	-	-	-	(2,402)
Post-employment benefits liabilities	(916,165,028)	-	-	-	-	(63,247)
Bank loans	-	(7,708,720)	-	-	-	(5,650)
Provision for mine rehabilitation, reclamation and closure	<u>(1,364,859,816)</u>	-	-	-	-	<u>(94,128)</u>
Total	<u>(6,688,167,400)</u>	<u>(7,899,555)</u>	<u>(33,519)</u>	<u>(780,036)</u>	<u>(118,250)</u>	<u>(467,959)</u>
Net assets/(liabilities)	<u>742,269,174</u>	<u>(7,347,077)</u>	<u>(31,907)</u>	<u>(780,036)</u>	<u>(118,250)</u>	<u>45,257</u>
US\$ equivalent	<u>51,244</u>	<u>(5,385)</u>	<u>(36)</u>	<u>(565)</u>	<u>(1)</u>	<u>45,257</u>

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37. NET MONETARY ASSETS AND LIABILITIES DENOMINATED IN FOREIGN CURRENCIES
 (continued)

As at 31 December 2018, 2017 and 2016, the Group had monetary assets and liabilities denominated in currencies other than US Dollars as follows: (continued)

	2017					
	in Rp'000	S\$ (full amount)	Euro (full amount)	A\$ (full amount)	Yen (full amount)	Equivalent in US\$
Monetary assets						
Cash and cash equivalents	2,460,545,525	936,288	1,616	-	-	182,249
Trade receivables	1,762,385,724	-	-	-	-	129,921
Prepaid taxes	1,160,003,331	-	-	-	-	85,679
Restricted time deposits	1,179,831	-	-	-	-	88
Total	5,384,114,411	936,288	1,616	-	-	397,937
Monetary liabilities						
Trade payables	(2,225,559,380)	(19,325)	(92,863)	(174,637)	(118,250)	(164,430)
Accrued expenses	(191,490,981)	(123,569)	(4,653,199)	(135,264)	-	(19,886)
Taxes payable	(130,546,708)	-	-	-	-	(9,629)
Short-term employee benefits liabilities	(36,429,827)	-	-	-	-	(2,689)
Post-employment benefits liabilities	(879,602,054)	-	-	-	-	(64,925)
Bank loans	-	(8,764,720)	-	-	-	(6,556)
Provision for mine rehabilitation, reclamation and closure	(212,982,966)	-	-	-	-	(15,696)
Total	(3,676,611,916)	(8,907,614)	(4,746,062)	(309,901)	(118,250)	(283,811)
Net assets/(liabilities)	1,707,502,495	(7,971,326)	(4,744,446)	(309,901)	(118,250)	114,126
US\$ equivalent	125,994	(5,962)	(5,664)	(241)	(1)	114,126

	2016						
	in Rp'000	S\$ (full amount)	Euro (full amount)	A\$ (full amount)	Yen (full amount)	£ (full amount)	Equivalent in US\$
Monetary assets							
Cash and cash equivalents	1,510,785,386	909,032	1,622	-	-	-	113,036
Trade receivables	1,482,206,176	-	-	-	-	-	110,439
Prepaid taxes	1,503,940,477	-	-	-	-	-	111,934
Restricted time deposits	462,810	-	-	-	-	-	34
Total	4,497,394,849	909,032	1,622	-	-	-	335,443
Monetary liabilities							
Trade payables	(1,295,357,460)	(232,491)	(135,825)	(259,569)	(187,390)	-	(96,844)
Accrued expenses	(185,189,751)	(189,271)	(4,653,199)	-	-	(34,125)	(18,875)
Taxes payable	(174,557,764)	-	-	-	-	-	(12,992)
Short-term employee benefits liabilities	(13,000,425)	-	-	-	-	-	(968)
Post-employment benefits liabilities	(665,440,365)	-	-	-	-	-	(49,527)
Provision for mine rehabilitation, reclamation and closure	(190,404,836)	-	-	-	-	-	(14,152)
Total	(2,523,950,601)	(421,762)	(4,789,024)	(259,569)	(187,390)	(34,125)	(193,358)
Net assets/(liabilities)	1,973,444,248	487,270	(4,787,402)	(259,569)	(187,390)	(34,125)	142,085
US\$ equivalent	146,976	400	(5,045)	(187)	(2)	(57)	142,085

Monetary assets and liabilities mentioned above are translated using the Bank Indonesia closing rate as at 31 December 2018, 2017 and 2016.

If assets and liabilities in currencies other than US Dollars as at 31 December 2018 are translated using the exchange rate as at the date of issuance of these consolidated financial statements, the total net monetary assets will increase by approximately US\$1,487.

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38. CASH FLOW INFORMATION

a. Non-cash transactions

The below table shows the Group's non-cash transactions during the year as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Non-cash activities:			
Acquisition of operational equipment under finance leases	116,713	48,546	36,335
Additions of fixed assets through accruals	15,408	6,694	1,847
Additions of fixed assets and mining properties through provision for mine rehabilitation, reclamation and closure	8,266	9,797	-
Additions of fixed assets and mining properties through capitalisation of borrowing costs	6,607	-	-
Addition of fixed assets through capitalisation of depreciation expenses	-	-	1,289
Addition of mining properties through capitalisation of depreciation expense	267	530	388
Reclassification of prepaid expenses to mining properties	-	6,047	-
Reclassification of fixed assets to mining properties	-	3,362	-
Capital injection from non-controlling interest through conversion of loan	-	636	-
Addition of inventory from reclassification of construction in progress	-	-	6,021

b. Reconciliation of liabilities arising from financing activities

The below tables set out a reconciliation of liabilities arising from financing activities for the years ended 31 December 2018 and 2017 as follows:

	Non-cash changes						Ending balance
	Beginning balance	Cash flows	Interest accretion	Foreign exchange rate movement	New leases	Fair value change	
2018							
Finance lease payables	85,165	(39,185)	-	-	116,713	-	162,693
Bank loans	1,291,990	(43,622)	6,953	(123)	-	-	1,255,198
Interest rate swaps	-	-	-	-	-	3,372	3,372
Loans from a third party	15,892	(2,460)	-	-	-	-	13,432
Total	1,393,047	(85,267)	6,953	(123)	116,713	3,372	1,434,695
2017							
Finance lease payables	70,100	(33,481)	-	-	48,546	-	85,165
Bank loans	1,364,048	(78,041)	5,886	97	-	-	1,291,990
Loans from a third party	15,541	-	351	-	-	-	15,892
Total	1,449,689	(111,522)	6,237	97	48,546	-	1,393,047

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39. OPERATING SEGMENTS

Management has determined the operating segments based on reports reviewed by the Board of Directors, which has been identified as the Group's chief operating decision maker, which makes strategic decisions.

The Board of Directors considers the business operation from a business type perspective, which comprises coal mining and trading, mining services, logistics and others (power plant, asset management, etc.).

The segment information provided to the Board of Directors for the reportable segments is as follows:

	For the year ended 31 December 2018					
	Coal mining and trading	Mining services	Logistics	Others	Eliminations	Consolidated
External revenue	3,347,522	205,873	39,460	26,896	-	3,619,751
Inter-segment revenue	12,434	540,917	259,822	64,951	(878,124)	-
Revenue	<u>3,359,956</u>	<u>746,790</u>	<u>299,282</u>	<u>91,847</u>	<u>(878,124)</u>	<u>3,619,751</u>
Cost of revenue	(2,364,006)	(652,612)	(132,092)	(34,150)	773,316	(2,409,544)
Selling and marketing expense	(45,559)	-	-	-	-	(45,559)
General and administrative expense	(43,724)	(27,229)	(20,510)	(67,437)	10,461	(148,439)
Finance costs	(67,113)	(15,568)	(4,458)	(28,462)	50,517	(65,084)
Finance income	41,822	1,331	4,832	18,420	(42,799)	23,606
Income tax expense	(379,901)	(1,105)	(3,805)	(11,162)	52,516	(343,457)
Profit for the year	511,566	(9,658)	140,630	(65,634)	(99,363)	477,541
Depreciation and amortisation	(85,020)	(124,870)	(24,628)	(8,621)	(110,690)	(353,829)
Loss on impairment of non-financial assets	-	(58,108)	-	-	(53,292)	(111,400)
31 December 2018						
Segment assets	3,173,894	898,621	575,388	1,522,776	890,076	7,060,755
Segment liabilities	2,207,951	596,384	123,714	1,119,440	(1,289,426)	2,758,063
	For the year ended 31 December 2017					
	Coal mining and trading	Mining services	Logistics	Others	Eliminations	Consolidated
External revenue	3,040,929	151,255	33,435	32,714	-	3,258,333
Inter-segment revenue	10,802	419,908	192,673	66,645	(690,028)	-
Revenue	<u>3,051,731</u>	<u>571,163</u>	<u>226,108</u>	<u>99,359</u>	<u>(690,028)</u>	<u>3,258,333</u>
Cost of revenue	(2,041,470)	(508,504)	(122,523)	(36,382)	592,048	(2,116,831)
Selling and marketing expense	(37,504)	-	-	-	-	(37,504)
General and administrative expense	(32,262)	(23,172)	(17,524)	(59,778)	(13,411)	(146,147)
Finance costs	(55,798)	(8,379)	(3,806)	(21,035)	36,024	(52,994)
Finance income	34,937	2,296	1,813	11,235	(31,548)	18,733
Income tax expense	(394,194)	(6,840)	(6,238)	(14,630)	28,809	(393,093)
Profit for the year	525,273	20,129	83,448	(2,871)	(89,541)	536,438
Depreciation and amortisation	(113,811)	(84,327)	(23,850)	(8,395)	(105,436)	(335,819)
31 December 2017						
Segment assets	3,040,811	752,569	496,456	824,111	1,700,200	6,814,147
Segment liabilities	2,110,352	408,003	119,466	759,757	(675,058)	2,722,520

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39. OPERATING SEGMENTS (continued)

The segment information provided to the Board of Directors for the reportable segments is as follows: (continued)

	For the year ended 31 December 2016					
	Coal mining and trading	Mining services	Logistics	Others	Eliminations	Consolidated
External revenue	2,347,296	111,391	38,889	26,663	-	2,524,239
Inter-segment revenue	5,114	336,923	181,797	62,029	(585,863)	-
Revenue	<u>2,352,410</u>	<u>448,314</u>	<u>220,686</u>	<u>88,692</u>	<u>(585,863)</u>	<u>2,524,239</u>
Cost of revenue	(1,790,433)	(387,526)	(122,349)	(28,594)	489,939	(1,838,963)
Selling and marketing expense	(27,635)	-	-	-	-	(27,635)
General and administrative expense	(26,066)	(20,750)	(20,127)	(61,635)	5,038	(123,540)
Finance costs	(46,470)	(7,585)	(3,474)	(29,331)	36,854	(50,006)
Finance income	33,888	1,650	899	7,950	(35,295)	9,092
Income tax expense	(213,649)	(9,863)	(3,684)	(10,794)	32,156	(205,834)
Profit for the year	292,460	37,640	56,629	(23,431)	(22,612)	340,686
Depreciation and amortisation	(126,706)	(69,516)	(23,502)	(8,447)	(106,271)	(334,442)
31 December 2016						
Segment assets	3,319,422	759,205	450,858	638,699	1,354,073	6,522,257
Segment liabilities	2,143,589	299,330	131,727	1,283,407	(1,121,678)	2,736,375

Sales by destination is as follows:

	2018	2017	2016
Domestic	911,275	809,433	743,331
Export			
- China	438,220	334,140	281,889
- Malaysia	437,332	475,358	236,928
- Japan	397,696	352,101	233,316
- India	350,305	246,056	282,650
- Korea	310,740	324,454	222,058
- Others	<u>774,183</u>	<u>716,791</u>	<u>524,067</u>
Total	<u>3,619,751</u>	<u>3,258,333</u>	<u>2,524,239</u>

Sales between segments are carried out at contracted prices. The revenue from external parties reported to the Board of Directors is measured in a manner consistent with that presented in profit or loss.

The amounts provided to the Board of Directors with respect to total assets and liabilities are measured in a manner consistent with the reporting in the consolidated statements of financial position.

40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES**a. Coal mining, hauling, barging, transshipment and other related agreements**

AI, as a coal producer, has entered into a number of coal mining agreements. Under the agreements, AI is required to pay contractors a rental fee and a service fee, calculated on a monthly basis, based on a formula which includes the amount of raw coal transported and overburden mined and transported. The contractors will provide the equipment, machinery, appliances and other supplies necessary and also in some instances may use AI's own equipment for performing the mining and transportation services, and are required to meet certain minimum production requirements.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

a. Coal mining, hauling, barging, transshipment and other related agreements (continued)

AI has also entered into coal barging, transport and transshipment agreements with contractors to provide coal transportation services from AI's main areas to certain port destinations and to provide floating crane services from the contractors' barge to customers' vessels. AI is required to pay contractors a service fee, calculated on a monthly basis, based on a formula which includes into account the amount of coal transported.

On 11 September 2015, AI entered into a fuel supply agreement with PT Pertamina (Persero) ("Pertamina"), whereby AI is required to pay Pertamina a price, based on a formula which consists of the volume of fuel supplied and the market price of fuel, and AI is required to purchase a minimum annual volume of fuel. This agreement was effective from 1 November 2015. This fuel supply agreement was amended on 1 December 2015 regarding changes in fuel price formula.

Contractor	Agreement type	Agreement date	Contract period end
Pama	Stripping of overburden and mining of coal	7 September 2009	31 July 2021
Pama	Coal transportation	7 September 2009	31 July 2021
PT Bukit Makmur Mandiri Utama	Stripping of overburden and mining of coal	6 April 2010	30 September 2022 or when the coal reserves at Paringin pit (according to the relevant JORC report) have been depleted, whichever is earlier
PT Mitra Bahtera Segara Sejati Tbk	Coal barging	1 October 2010	31 October 2019
PT Meratus Advance Maritim	Coal barging	1 December 2010	31 October 2019
Pertamina	Fuel supply	11 September 2015	1 October 2022
PT Bukit Makmur Mandiri Utama	Heavy equipment rental	28 September 2012	30 September 2022 or when the coal reserves at Paringin pit (according to the relevant JORC report) have been depleted, whichever is earlier
Pama	Heavy equipment rental	28 September 2012	31 July 2021

Under the agreements made by SIS and third party coal producers, SIS provides equipment through a rental mechanism, and provides mining services for overburden removal and hauling, and also coal hauling/transportation. SIS is required to meet a minimum production level for certain activities. SIS receives a service fee calculated on a monthly basis, based on a formula which includes several adjustment clauses.

Coal producer	Agreement date	Contract period or production level (metric tonnes/MT)
PT Berau Coal (Binungan Blok 1-4)	1 March 2007 - 21 September 2012	30 September 2012 - 31 December 2020
PT Berau Coal (Sambarata Blok B-1)	21 January 2008 - 21 September 2012	30 September 2012 - 31 December 2020
PT Berau Coal (Binungan Blok 5-6)	25 April 2018	1 August 2016 - 31 December 2020
PT Berau Coal (Sambarata B-West dan B-East)	31 January 2018	1 May 2017 - 30 April 2022
PT Borneo Indobara (Kusan)	23 February 2012	1 January 2012 - 31 December 2023

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)**b. Land-Use Cooperation Agreement**

On 4 November 2009, MSW and the Government of Tabalong Regency entered into a land-use cooperation agreement, for the use of 100.2 hectares of the Government of Tabalong Regency's land, located in Mabu'un village, Tabalong Regency, South Kalimantan. Under this land-use cooperation agreement, MSW has registered and obtained a land right ("HGB") over the Certificate of Management Rights held by the Government of Tabalong Regency.

On 27 February 2014, MSW and the Government of Tabalong Regency amended the term of land-use cooperation agreement to 50 years, revised the land area based on needs, and provided fixed contribution and profit sharing to the Government of Tabalong Regency.

c. Banking facilities

On 5 September 2007, AI entered into a banking facility agreement with HSBC to issue a bank guarantee. This agreement has been amended several times with the latest amendment dated 19 December 2016. The facility represents a combined limit facility amounting to US\$45,000 with treasury facility amounting to US\$5,000. This facility is not bound by any collateral. This agreement is valid until HSBC cancels, ceases or discharges AI in writing from its obligation under the agreement, or any other related agreement.

On 13 February 2008, AI entered into a banking facility amendment and restatement agreement with PT Bank DBS Indonesia for banking facilities. This agreement has been amended several times with the last amendment dated 22 October 2018. The facility is provided in the form of bank guarantees, bid bonds, performance bonds and stand-by letters of credit, with a total limit of US\$20,000. This facility is not bound by any collateral. This agreement is valid until 15 July 2019.

On 28 April 2014, AI entered into a banking facility agreement with Bank Mandiri. The agreement was amended several times with the latest amendment dated 6 June 2017. The facility is provided to issue a treasury line with a total limit amounting to US\$75,000 and a bank guarantee with a total limit amounting to US\$50,000 in the form of bid and performance bonds. This facility can also be used by certain affiliated companies with certain terms and conditions. This facility is not bound by any collateral. The agreement is valid until 27 April 2019.

As at 31 December 2018, 2017 and 2016, the total bank facilities used by AI which were obtained from HSBC, PT Bank DBS Indonesia and Bank Mandiri in various currencies, aggregated to US\$47,730, US\$47,585 and US\$49,420, respectively. These facilities were utilised in relation to sales contracts and reclamation guarantees.

On 20 April 2016, AP entered into a banking facility agreement with MUFG Bank Ltd (formerly known as The Bank of Tokyo-Mitsubishi UFJ Ltd), Jakarta Branch to issue a bank guarantee with a total limit amounting to US\$50,000 in the form of bid or performance bonds. This facility is fully guaranteed by the Company. This agreement has been amended on 20 April 2018 to extend the maturity date to 20 April 2019.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

c. Banking facilities (continued)

On 19 May 2016, AP signed a banking facility letter with Oversea-Chinese Banking Corporation Ltd, to issue a bank guarantee or stand-by letters of credit in the form of bid bonds, performance bonds or contingent sponsor support guarantees with a total limit of US\$40,000. This facility is fully guaranteed by the Company.

On 19 May 2016, AP signed a banking facility letter with DBS Bank Ltd, to issue a bank guarantee in the form of financial or performance guarantees with a total limit of US\$25,000. This facility is fully guaranteed by the Company.

On 28 September 2016, AP entered into a banking facility agreement with Bank Mandiri, to issue a bank guarantee with a total limit amounting to US\$50,000 in the form of bid bonds or stand-by letters of credit. This facility is fully guaranteed by the Company. This agreement has been amended on 27 September 2017 to extend the maturity date to 27 September 2018.

As at 31 December 2018, 2017 and 2016, the total bank facilities used by AP which were obtained from Oversea-Chinese Banking Corporation Ltd, MUFG Bank Ltd and DBS Bank Ltd amounted to US\$36,296, US\$36,296 and US\$44,696, respectively. These facilities were utilised in relation to bid bonds, performance bonds and contingent sponsor support guarantees.

On 19 November 2016, TPI entered into a Banking Facility Agreement with PT Bank DBS Indonesia to issue a bank guarantee in the form of a performance bond to fulfil the requirement of TPI's Power Purchase Agreement ("PPA") with a total limit of Rp45 billion (full amount). The Company acts as the guarantor for the commitment equal to 65% of the total facility.

On 14 July 2017, the Company entered into a banking facility agreement with BRI to issue bank guarantees with a total limit amounting to US\$183,500 in the form of bid bonds, performance bonds, reclamation guarantees and forestry lease-use permit guarantees. This facility can also be used by its subsidiaries. This facility is not bound by any collateral. This agreement has been amended on 1 August 2018 to extend the maturity date to 14 July 2019 with a total limit amounting to US\$146,500.

As at 31 December 2018, 2017 and 2016, the total bank facility from BRI used by the Group amounted to US\$7,274, US\$1,980 and US\$nil, respectively. The facility was used in relation to reclamation guarantees, performance bonds and bid bonds.

The use of certain banking facilities requires the Group to maintain time deposits (Note 6).

d. Sales commitments

As at 31 December 2018, AI and AMC had various commitments to deliver approximately 100 million metric tonnes of coal to various buyers, subject to price agreements. The coal will be delivered periodically from 2019 until 2022.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

e. Capital expenditure

As at 31 December 2018, 2017 and 2016, the Group had purchase orders for vessels, mining equipment, hauling road and infrastructure construction amounting to US\$169,575, US\$102,339 and US\$ 6,026, respectively.

f. Levy for use of forestry areas

Based on Government Regulation No. 33 Year 2014 on the Type and Tariff of PNB from the Use of Forestry Area for the Interest of Development other than Forestry Activities Applicable to the Forestry Ministry, it is stipulated that the use of forestry area for the interest of development other than forestry activities is subject to a PNB levy for the entire forest area that is leased and used and for the entire forest area for which lease and use agreements are still effective, in accordance with the utilisation criteria, with a tariff ranging from Rp1,600,000/hectare to Rp4,000,000/hectare. This Government Regulation is effective from August 2014 and the Group has recognised this PNB levy on an accrual basis.

g. Fuel Facilities Agreement

On 11 September 2015, IBT entered into a Fuel Facilities Agreement with Pertamina, whereby Pertamina agreed to operate the facilities within the terminal excluding the shared facilities for the purpose of supplying fuel to AI and third parties. For the use of the facilities, Pertamina agreed to pay a lease fee per barrel of fuel loaded and a port handling fee based on the fuel discharged and loaded. The agreement will expire on 1 October 2022.

On 21 June 2016, in order to increase the fuel volume supplied to third parties, IBT agreed to give a rebate on lease fees per barrel for fuel volumes above the guaranteed annual volume supplied to third parties.

h. Mining Law No. 4/2009

On 16 December 2008, the Indonesian Parliament passed a new Law on Mineral and Coal Mining (the "Law"), which received the assent of the President on 12 January 2009, becoming Law No. 4/2009. The CCA system under which AI and AMC, the Group's subsidiaries, operate, will no longer be available to investors. However, the Law indicates that existing CCAs, such as those held by AI and AMC, will be honoured.

The Law notes that existing CCAs will be honoured until their expiration with the provision that the CCAs must be adjusted in line with Law No. 4/2009 within a period of 1 (one) year. The CCAs of AI and AMC have been amended for the intended adjustments.

In February 2010, the Government released two implementing regulations for Mining Law No. 4/2009, i.e. Government Regulation No. 22/2010 and 23/2010 ("GR No. 22" and "GR No. 23"). GR No. 22 deals with the establishment of the mining areas under the new IUP. GR No. 23 provides clarifications regarding the procedures to obtain the new IUP. GR No. 23 indicates that existing CCAs will be honoured by the Government, although any extension of existing CCAs will take place through the issue of an IUP.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

h. Mining Law No. 4/2009 (continued)

The Government further amended GR No. 23 by issuing, among others, Government Regulation No. 24/2012 on 21 February 2012 ("GR No. 24/2012") and later by issuing Government Regulation No. 1/2014 dated 11 January 2014 ("GR No. 1/2014"), Government Regulation No. 77/2014 dated 14 October 2014 ("GR No. 77/2014") and Government Regulation No. 1/2017 dated 11 January 2017 ("GR No. 1/2017") which regulate the mechanism for extension of IUPs, the requirement for any coal sale (export and local) to refer to the coal benchmark price, transfers of IUPs, divestments and mining areas.

The Group is closely monitoring the progress of the implementing regulations for the Law and will consider the impact on its operations, if any, as these regulations are issued.

i. Ministerial Regulation No. 25/2013

In August 2013, the MoEMR issued Ministerial Regulation No. 25/2013 on the supply, use of and trade in biofuel as an alternative energy source. This regulation requires coal companies to gradually blend biofuel with diesel fuel. The Group is closely monitoring the adoption of this regulation and its impact upon its operations.

j. Ministerial Regulation of Environment and Forestry No. P.89/MENLHK/SETJEN/KUM.1/11/2016

In November 2016, the Ministry of Environment and Forestry ("MoE&F") issued Ministerial Regulation No. P.89/MENLHK/SETJEN/KUM.1/11/2016 on Guidelines for Planting of Borrow to Use Licence ("IPPKH") Holders for the Rehabilitation of Watershed Areas ("Ministerial Regulation of Environment and Forestry No. 89/2016").

This regulation is a guideline for IPPKH holders which are obligated to perform rehabilitation of watershed at a location stipulated in accordance with the provisions set forth in this regulation, and with rehabilitation planting period set before the end of the IPPKH period with procedure of rehabilitation according to the provisions set forth in this rule.

AI and AMC, as the holders of IPPKH have started to fulfil the obligation by planting the rehabilitation of the watershed, therefore, Management believes that the Group has complied with the provisions in the regulation as mentioned above.

k. Ministerial Regulation No. 48/2017

On 3 August 2017, MoEMR issued Ministerial Regulation No. 48/2017 regarding the Control of Enterprises in the Energy and Mineral Resources Sector ("Ministerial Regulation No. 48/2017"). This regulation governs the transfer of shares and changes in the Directors and/or Commissioners. Any transfer of shares or changes in Directors and/or Commissioners of AI, the AMC entities, PCS, SCM and LSA is subject to the prior approval of the MoEMR.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

I. Ministerial Regulation No. 11/2018

On 19 February 2018, MoEMR issued Ministerial Regulation No. 11/2018 concerning Procedures for the Granting of Areas, Licensing and Reporting on Mineral and Coal Mining Activities ("Permen No. 11/2018") revoking the Decree of the Minister of Energy and Mineral Resources No. 1453 K/29/MEM/2000 on Technical Guidelines for the Conduct of Governmental Tasks in the Field of General Mining, Ministerial Regulation No. 12/2011 on Procedure for the Determination of the Mining Areas and Information System of Mineral and Coal Mining Areas, Ministerial Regulation No. 28/2013 on Procedures for Auctioning of Mining Permit Areas and Special Mining Permit Areas, Ministerial Regulation No. 25/2016 on Amendment to Regulation of the Minister of Energy and Mineral Resources No. 12/2011 on Procedures for the Setting of the Mining Areas and Information System of the Determination of Mineral and Coal Mining Areas, Ministerial Regulation No. 15/2017 on Procedures for the Granting of Operation and Production Special Mining Business Permits as a continuation of the Operation of a Contract of Work or Coal Cooperation Agreement, Ministerial Regulation No. 34/2017 on Licensing in the Field of Mineral and Coal Mining, Director General of Mineral and Coal ("DGoMC") Regulation No. 714 K/30/DJB/2014 dated 12 August 2014 on the Procedures and Requirements for Recommendation as a Registered Coal Exporter, and DGoMC Regulation No. 841 K/30/DJB/2015 dated 31 July 2015 on the Procedures and Requirements for Recommendation as Registered Exporter and Approval on Export of Pure Lead Bars.

Ministerial Regulation No. 11/2018 regulates the preparation and determination of Mining Permit Areas ("WIUP") and Special Mining Permit Areas ("WIUPK"), Information System of Mining Areas ("WP"), procedures for granting WIUP and WIUPK, licensing procedures, rights and obligations of Permit holders, and Annual Work Plan and Budget ("RKAB") and reporting requirements.

On 16 April 2018, the MoEMR issued Ministerial Regulation No. 22/2018 regarding the Amendment to the Procedures for the Granting of Areas, Licensing and Reporting in Mineral and Coal Mining Activities, which amends the regulations relating to the preparation and determination of WIUP or WIUPK, the procedure for granting of WIUP and WIUPK, and the rights, obligations and prohibitions for IUP and IUPK holders.

On 19 April 2018, the MoEMR issued Ministerial Decree No. 1796.K/30/MEM/2018 regarding the Guidelines for the Application, Evaluation, and Issuance of Licences in the Mineral and Coal Mining Sector, which among others regulates the guidelines for the implementation of application, evaluation and the issuance of IUPK Operation Production as an extension of an expired Contract of Work or CCA.

On 5 December 2018, the MoEMR issued Ministerial Regulation No. 51/2018 regarding the Second Amendment to Ministerial Regulation No. 11 Year 2018 regarding Procedures for the Granting of Areas, Licensing and Reporting in Mineral and Coal Mining Activities, which amends and adds some provisions regarding preparation and determination of WIUP or WIUPK, the procedures for granting of WIUP and WIUPK, and the rights, obligations and prohibitions for IUP and IUPK holders, and the continuation of CCA operations.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

m. Ministerial Regulation No. 25/2018

On 30 April 2018, the MoEMR issued Ministerial Regulation No. 25/2018 regarding the enterprise of mineral and coal mining ("Ministerial Regulation No. 25/2018") which revokes, among others, Ministerial Regulation No. 34/2009 on the Prioritisation of Supplying Minerals and Coal for Domestic Needs, Ministerial Regulation No. 17/2010 on the Procedure for Setting the Mineral and Coal Benchmark Price, Ministerial Regulation No. 33/2015 on the Procedure for Establishing Boundary Mark for the Area of Mining Business Permit and Special Mining Business Permit for Minerals and Coal and Ministerial Regulation No. 41/2016 on the Development and Empowerment of Communities in Mineral and Coal Mining Activities.

Ministerial Regulation No. 25/2018, which was recently amended through Ministerial Regulation No. 50/2018, regulates the mineral and coal mining business, activities of IUP exploration or IUPK exploration, activities of IUP Operation Production and IUPK Operation Production, financial, non-tax state revenue, mineral and coal data processing, share divestment, manpower recruitment and capital goods procurement, equipment, raw and other supporting material, control of production and sales, mineral and coal price, community development and empowerment, and termination of mineral and coal mining business activity.

On 5 September 2018, the MoEMR issued both Ministerial Decree No. 1952 K/84/MEM/2018 regarding the use of domestic banking or the offshore branch of Indonesian banks for mineral and coal export proceeds and Ministerial Decree No. 1953 K/06/MEM/2018 regarding the use of operation goods, capital goods, equipment, raw and other supporting materials which are domestically produced in the energy and minerals sector.

Management believes that AI, AMC, PCS, SCM and LSA have complied with the requirements of the regulations mentioned above.

n. Ministerial Regulation No. 23 K/30/MEM/2018

On 5 January 2018, the MoEMR issued Ministerial Decree No. 23 K/30/MEM/2018 regarding the Setting of the Minimum Percentage of Coal Sales for Domestic Consumption for the Year 2018 which stipulates the minimum Domestic Market Obligation ("DMO") percentage for the year 2018.

On 7 August 2018, the MoEMR issued Ministerial Decree No. 1924 K/30/MEM/2018 amending Ministerial Decree No. 23 K/30/MEM/2018 on the Setting of the Minimum Percentage of Coal Sales for Domestic Consumption for the Year 2018 which stipulates the total production of coal for the year 2018 and the remaining amount for export. The Group is closely monitoring the fulfilment of the DMO requirement.

o. Ministerial Regulation No. 7/2017

On 11 January 2017, the MoEMR issued Ministerial Regulation No. 7/2017, which was recently amended through Ministerial Regulation No. 19/2018, regulating the Procedures for the Setting of Benchmark Prices for Metal Minerals and Coal Sales. The provisions of MoEMR No. 17/2010, relating to benchmark prices for minerals and coal sales are revoked from that date.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

o. Ministerial Regulation No. 7/2017 (continued)

On 9 March 2018, the MoEMR issued Ministerial Decree No. 1395 K/30/MEM/2018, which regulates a coal sales price of US\$70 per metric tonne FOB vessel for supplying coal for electricity provided in the public interest. On 12 March 2018, this Ministerial Decree was amended by Ministerial Decree No. 1410 K/30/MEM/2018 to amend the effective date to become the date of enactment of this Decree up to 31 December 2019 with a maximum sales volume of 100 million metric tonnes annually. The provisions of Ministerial Decree No. 0617 K/32/MEM/2011 on the Benchmark Price for PT Perusahaan Listrik Negara (Persero) ("PLN") for the Operation of Coal Fired Power Plants are therefore revoked from that date.

On 7 August 2018, the MoEMR issued Ministerial Decree No. 1925 K/30/MEM/2018, which amends the Ministerial Decree No. 1395 K/30/MEM/2018 to regulate that IUP-Production Operation holders and Contract of Work holders who have fulfilled the minimum percentage of coal sales for domestic consumption and the requirement of coal sales price will be given the increase of total national production amounted to 100 million tonnes as long as the Group can fulfil the requirements of the technical good mining practices and the environmental obligations.

p. Long-term PPA for the Central Java Coal-Fired Steam Power Plant Independent Power Producer ("IPP") Project in Central Java

The Company, together with Electric Power Development Co Ltd ("JPower") and Itochu Corporation ("Itochu"), formed a consortium - the "JPower-Adaro-Itochu" Consortium - to undertake the project. In July 2011, the Consortium established BPI, in which the Group, through its subsidiary, AP, JPower and Itochu own participating interests of 34%, 34% and 32%, respectively, to build, own, operate and transfer a coal-fired steam power plant.

On 6 October 2011, BPI and PLN signed a long-term PPA. The PPA includes the construction of a coal-fired steam power plant with a total capacity of 2x1,000 MW in Batang Regency, the Province of Central Java (Central Java Power Plant/"CJPP") and a 25-year supply of electricity to PLN. Upon expiration of the PPA term, the CJPP project will be transferred to PLN. In addition to the PPA, a Guarantee Agreement was also signed by the Government represented by the Minister of Finance of the Republic of Indonesia, PT Penjaminan Infrastruktur Indonesia (Persero) and BPI, on 6 October 2011 which in this case, guaranteed PLN's payment obligations for BPI under the PPA. The effective date of the Guarantee Agreement starts from the financing date which is 6 June 2016 and shall be effective until 21 years after the CJPP project Commercial Operation date.

On 6 April 2016, BPI signed an amendment to the PPA which extends the required financing date to 6 June 2016.

On 13 April 2016, BPI and PLN signed Amendment No. 8 to the PPA, which regulates PLN's obligation to acquire the State Reserved Land for the development of the CJPP project including BPI and PLN obligations to enter into a Land Lease Agreement with respect to the Land Law No. 2 of 2012 and Land Utilisation Agreement with respect to the State Reserved Land.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

p. Long-term PPA for the Central Java Coal-Fired Steam Power Plant Independent Power Producer (“IPP”) Project in Central Java (continued)

On 14 April 2016, BPI and PLN signed the Land Lease Agreement with respect to the Land Law No. 2 of 2012 and Land Utilisation Agreement with respect to the State Reserved Land. With the signing of the Land Lease Agreement and the Land Utilisation Agreement, therefore all required land for the development of the CJPP project has been obtained.

The latest amendment to the PPA is Amendment No. 9 to the PPA dated 11 May 2016 with respect to the implementation of Bank Indonesia Regulation No. 17/3/PBI/2015 regarding the Mandatory Use of Rupiah within the Territory of the Republic of Indonesia.

On 6 June 2016, BPI has achieved the Financing Date as required by the PPA.

q. Long-term PPA for the South Kalimantan Coal-Fired Steam IPP

The Company, together with Korea East-West Power Co, Ltd, formed a consortium with participation interests of 65% and 35%, respectively. On 12 August 2013, the Consortium established TPI to build, own, operate and transfer a coal-fired steam power plant.

On 15 October 2014, TPI and PLN signed a long-term PPA. The PPA contemplates, among others, the engineering, construction, ownership, and operation of a coal-fired power plant with a total capacity of 2x100 MW in the Province of South Kalimantan (South Kalimantan Power Plant/“SKPP”) and a 25-year supply of electricity to PLN. Upon the expiration of the PPA term, the SKPP project will be transferred to PLN. This project is included in the Fast Track Program Project phase 2 (FTP-2), with the Build, Own, Operate and Transfer (“BOOT”) scheme. This Project obtained support from the Government, represented by the Minister of Finance of the Republic of Indonesia (“MoF”) in the form of a Business Viability Guarantee Letter (“BVGL”) dated 3 January 2017. The project is currently in the construction stage.

On 18 November 2016, TPI and PLN signed Amendment No. 1 to the PPA concerning the invoicing and payment procedures and the form of PLN consent letter.

On 24 January 2017, TPI has achieved the financing date as required by the PPA.

r. Subordinated Term Loan Facility Agreement

On 3 June 2016, BPI entered into a US\$817,027 Subordinated Term Loan Facility Agreement with various financial institutions which will expire 5 years after the date of the agreement. The Company acts as the guarantor for a commitment equal to 34% of the total facility. Based on the agreement, BPI is required to enter into an interest rate hedging arrangement. Therefore, on 3 June 2016, BPI entered into an interest rate hedging agreement with various financial institutions, to hedge 90% of the interest rate exposure in respect of the total outstanding loan facility. As at 31 December 2018 and 2017, this facility has been fully drawdown (2016: drawdown total US\$780,000).

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

s. Convertible loan and shares subscription agreement and option agreement

On 28 May 2012, ATA entered into a Convertible Loan and Shares Subscription Agreement with BEP, PT Persada Capital Investama ("PCI"), PT Triputra Investindo Arya ("TIA"), PT Arya Citra International, PT Bara Murau Coal, PT Millenium Capital Investment, Arieska Lianawati Konar Suhananto ("Arieska"), Andrianto Oetomo ("Andrianto") and Arianto Oetomo ("Arianto") ("Convertible Loan Agreement").

ATA has the option to provide loans to BEP with a maximum facility of US\$500,000 which will mature on 28 May 2021. By lending to BEP, ATA has the right to convert the loan into up to 51% of BEP's issued and outstanding shares plus shares to be issued by BEP. By entering into the Convertible Loan Agreement, ATA is able to appoint the majority of BEP's Board of Directors and to govern its financial policies as well as to control BEP's operations. As a result, the Group has consolidated BEP.

On the same date, ATA entered into an Option Agreement with BEP, PCI, TIA, Arieska, Andrianto and Arianto ("Option Agreement"). ATA has the right to purchase shares in BEP owned by TIA, PCI, Arieska, Andrianto and Arianto, which represent a total ownership of 79.8%, until 28 May 2021. The proceeds from the purchase of the shares owned by TIA, PCI, Arieska, Andrianto and Arianto in BEP will be used to subscribe for new shares in the Company up to a maximum of 2,381,729,663 shares.

ATA has the option to execute either one of the agreements mentioned above.

At the date of these consolidated financial statements neither of the above rights have been executed.

t. US\$134,238 Post-FC Guaranteed Bridge Facility Agreement

On 24 November 2016, TPI entered into a US\$134,238 Post-FC Guaranteed Bridge Facility Agreement with various financial institutions. The Company acts as the guarantor for a total commitment equal to 65% of the facility. Based on the agreement, TPI is required to enter into an interest rate swap arrangement. Therefore, on 24 November 2016, TPI signed an interest rate swap agreement with various financial institutions, to hedge 75% of the interest rate exposure in respect of the total outstanding loan facility. As at 31 December 2018, 2017 and 2016, this facility has been fully drawdown.

u. Legal proceedings

Arbitration process of JPI-WIKA and FLS in relation to the overburden crushing and conveying system

To support AI in increasing its coal production capacity, an overburden crushing and conveying system ("OPCC") has been developed for transportation of overburden. For the OPCC project, on 25 March 2011, AI entered into an OPCC equipment supply and offshore services contract with FLSmidth Spokane, Inc. (subsequently known as FLSmidth USA Inc.) ("FLS") with a total contract amount of US\$92,003, and a construction contract with PT Wijaya Karya (Persero) Tbk ("WIKA") with a total contract amount of US\$83,870, with both contracts subsequently novated by AI to JPI on 10 November 2011.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

u. Legal proceedings (continued)

Arbitration process of JPI-WIKA and FLS in relation to the overburden crushing and conveying system (continued)

On 29 November 2016, JPI filed two Notices of Arbitration (“NOA”) against WIKA and FLS separately (the “JPI-WIKA” and “JPI-FLS” arbitrations).

WIKA commenced two arbitrations against FLS and FLSI on 6 March 2017 and against JPI and FLS jointly on 27 June 2017.

On 29 March 2018, the parties entered into a full and final settlement agreement for all claims in relation to the OPCC. All ongoing arbitration proceedings have been discontinued with no order of any kind including as to costs.

Arbitration process of MSW-PTPLI and PLPL

PT Punj Lloyd Indonesia (“PTPLI”) and Punj Lloyd Pte Ltd (“PLPL”) commenced arbitration proceedings against MSW on 3 September 2014 in accordance with the rules of the Singapore International Arbitration Centre (“SIAC Rules”) pursuant to the contracts entered into by MSW and PTPLI and/or PLPL in relation to the construction of MSW’s coal-fired power plant with a capacity of 2x30 MW located at Tanjung, South Kalimantan, with an initial claim amount of €18,790,442 (full amount). The arbitration proceedings were consolidated.

The Final Award was issued by the arbitration tribunal (“Tribunal”) on 16 April 2018. The Tribunal found in MSW’s favour on most aspects of this arbitration, awarding MSW the amounts of €8,238,780 (full amount), Rp40,189,644 (full amount), US\$859 (full amount) and S\$1,974,335 (full amount) including costs. The Tribunal also dismissed the entirety of PTPLI’s and PLPL’s counterclaims and terminated the arbitration between MSW and PLPL on grounds that PLPL had been wound up.

Up to the issuance date of these consolidated financial statements, MSW is in the process of obtaining the enforcement of the Final Award.

Legal case between MIP with PT Bukit Asam (Persero) Tbk (“PTBA”)

During 2018, PTBA filed a claim against MIP, claiming that MIP is conducting mining activities in part of the Mining Rights area held by PTBA. The claim amounts to Rp5 trillion (full amount). In this claim, the Company and ATA have been named as Co-defendant I and Co-defendant II, respectively. On 28 January 2019, the case was decided by the District Court of Lahat which declared that the Plaintiff’s claim could not be accepted. The Plaintiff further appealed the decision to the High Court of Palembang. Management believes the case is without merit and will not have a material impact on the financial conditions of MIP or the Group.

Other legal proceedings

From time to time, the Group is involved in various legal proceedings as a normal consequence of the Group’s business. The Group is of the opinion that adverse decisions in any pending or threatened proceedings, or that any amounts it may be required to pay by reason thereof, will not have a material adverse effect on its financial condition or the consolidated results of operations.

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40. SIGNIFICANT AGREEMENTS, COMMITMENTS AND CONTINGENCIES (continued)

v. Multi-Currency Revolving Term Loan Facility Agreement

In December 2017, ACL and CTI entered into Multi-Currency Revolving Term Loan Facility Agreements of US\$100,000 and US\$50,000, respectively, with DBS Bank Ltd. Loan facility for ACL will be used to invest in marketable securities while loan facility for CTI will be used for working capital. The Company acts as the guarantor of these loan facilities. As at 31 December 2018 and 2017, ACL and CTI had not yet drawdown these loans.

w. Overlapping land plots of PT Bhakti Energi Persada and its subsidiaries

PT Bhakti Energi Persada and subsidiaries ("BEP Group") have been granted mining permits in Muara Wahau, East Kutai, East Kalimantan (the "Concession Area"). Part of the Concession Area currently overlaps with the plantation business permit held by PT Dharma Satya Nusantara and its subsidiaries (the "Plantation Companies") ("Overlap Area"). As at 31 December 2018, BEP Group and the Plantation Companies have reached agreements for a portion of the Overlap Area and BEP Group has paid the first instalment related to the settlement. The remaining instalments will be paid subject to fulfilment of certain conditions. The remaining Overlap Areas are still in the process of discussion.

41. RECLAMATION GUARANTEES AND MINE CLOSURE

On 20 December 2010, the Government released an implementing regulation for Mining Law No. 4/2009, i.e. GR No. 78 that deals with reclamation and post-mining activities for both IUP-Exploration and IUP-Production Operation holders.

An IUP-Exploration holder, among other requirements, must include a reclamation plan in its exploration work plan and budget and provide a reclamation guarantee in the form of a time deposit placed at a state-owned bank.

An IUP-Production Operation holder, among other requirements, must (1) prepare a five-year reclamation plan; (2) prepare a post-mining plan; (3) provide a reclamation guarantee which may be in the form of a joint account or time deposit placed at a state-owned bank, a bank guarantee, or an accounting provision (if it meets the requirements); and (4) provide a post-mine guarantee in the form of a time deposit at a state-owned bank.

The requirement to provide a reclamation guarantee and a post-mining guarantee does not release the IUP holder from the requirement to perform reclamation and post-mining activities.

On 3 May 2018, the MoEMR issued Ministerial Regulation No. 26/2018 ("Permen ESDM 26/2018") regarding proper mining principles and supervision in mineral and coal mining activities, and on 7 May 2018, the MoEMR issued Ministerial Decree No. 1827 K/30/MEM/2018 ("Kepmen ESDM") regarding guidelines for proper mining techniques and principles. As of the effective date of these regulations, Ministerial Regulation No. 07/2014 regarding mine reclamation and post-mining activities in mineral and coal mining activities was revoked and is no longer valid.

Kepmen ESDM No. 1827 K/30/MEM/2018 states that a company is required to provide mine reclamation and post-mining guarantees which may be in the form of a time deposit, bank guarantee or accounting reserve, all of which have a duration corresponding to the reclamation schedule.

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41. RECLAMATION GUARANTEES AND MINE CLOSURE (continued)

The below table sets out reclamation guarantees that are required and have been placed by the Group as at 31 December 2018, 2017 and 2016:

Entity	Decree		Period	Placed amount			Form
	Number	Date		2018	2017	2016	
In Rupiah (full amount)							
AI	467/30/DJB/2013 629/30/DJB/2013 968/37.03/DBT/2014 674/30/DJB/2014 1178/30/DJB/2015 755/30/DJB/2016 1153/30/DJB/2017 2776/30/DJB/2017 576/37.06/DJB/2018	19 March 2013 12 April 2013 23 April 2014 25 April 2014 27 July 2015 27 May 2016 31 May 2017 29 December 2017 21 March 2018	2013-2017 2018-2022	Rp79,760,863,706	Rp69,812,998,147	Rp67,087,544,036	Performance bonds
MIP	540/625/Pertamb/ 2014	30 June 2014	2014-2018	Rp1,502,688,591	Rp1,047,020,893	Rp689,556,086	Joint time deposits at a state-owned bank
BEE	540/2626/ Dispertamben/2016	13 September 2016	2016-2020	Rp319,735,106 Rp1,531,932,988	Rp319,735,106 -	Rp3,253,380 -	Joint time deposits at a state-owned bank Performance bonds
KC	935/30/DJB/2015 1049/37.06/DJB.2018	26 June 2015 25 June 2018	2015-2016 2018-2019	Rp1,541,603,492	Rp310,408,192	Rp883,530,781	Time deposits
SBC	938/30/DJB/2015	26 June 2015	2015-2016	Rp406,613,227	Rp406,613,227	Rp931,838,950	Time deposits
JC	1048/37.06/DJB.2018	25 June 2018	2018-2019	Rp4,278,503,600	-	-	Time deposits
SCM	1641/30/DJB/2016 2588/30/DJB/2017 1983/37.06/DJB/2018	17 November 2016 30 November 2017 23 November 2018	2014-2018 2017-2018 2014-2017	Rp8,624,335,262	Rp15,983,017,828	-	Performance bonds
LSA	1622/30/DJB/2016 2583/30/DJB/2017 1913/37.06/DJB/2018	24 November 2016 30 November 2017 14 November 2018	2016-2020 2017-2020 2016-2020	Rp11,406,702,188	Rp16,618,187,091	-	Performance bonds
PCS	1640/30/DJB/2016 1240/37.06/DJB/2018	17 November 2016 27 July 2018	2018-2022 2018-2022	Rp19,959,493,876	Rp23,972,048,299	-	Performance bonds
BEP	540/818.1/Distamben- PU/IX/2014 540/820/Distamben- PU/IX/2014 540/821.1/Distamben- PU/IX/2014 540/822.1/Distamben- PU/IX/2014 540/830/Distamben- PU/IX/2014 540/831/Distamben- PU/IX/2014 540/831.1/Distamben- PU/IX/2014	8 September 2014 8 September 2014 9 September 2014 9 September 2014 10 September 2014 10 September 2014 10 September 2014	2015-2019	Rp4,628,097,982	Rp4,628,097,982	Rp4,628,097,982	Performance bonds

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41. RECLAMATION GUARANTEES AND MINE CLOSURE (continued)

The below table sets out reclamation guarantees that are required and have been placed by the Group as at 31 December 2018, 2017 and 2016: (continued)

Entity	Decree		Period	Placed amount			Form
	Number	Date		2018	2017	2016	
In thousands of US Dollars							
LC	343/30/DJB/2015 658/30/DJB/2017 1651/30/DJB/2017 2609/30/DJB/2017	4 March 2015 23 March 2017 21 August 2017 6 December 2017	2014-2017 2018-2021	US\$2,342	US\$5,690	US\$12,287	Performance bonds
MC	2755/30/DJB/2017	28 December 2017	2017-2021	US\$6,181	-	-	Performance bonds
PC	CCA article 7	-	-	US\$100	US\$100	-	Time deposits
SBC	CCA article 7	-	-	US\$100	US\$100	-	Time deposits

The below table sets out post-mining guarantees that are required and have been placed by the Group as at 31 December 2018, 2017 and 2016:

Entity	Decree		Period	Placed amount			Form
	Number	Date		2018	2017	2016	
In Rupiah (full amount)							
MIP	540/042/Pertamb/2010	2 June 2010	2012-2036	Rp10,862,169,477	Rp7,821,116,228	Rp5,481,844,498	Joint time deposits at a state-owned bank
BEE	545/1181/Tamben-II/2011	22 November 2011	2014-2038	Rp3,141,829,661	Rp2,060,769,992	Rp1,216,192,126	Joint time deposits at a state-owned bank
In thousands of US Dollars							
LC	825/30/DJB/2016	8 June 2016	2016-2018	US\$4,901	US\$2,176	US\$544	Time deposits
AI	279/30/DJB/2013	14 February 2013	2014-2019	US\$9,311 US\$8,388***	US\$5,033 US\$4,278**	US\$2,461 US\$2,572*	Time deposits

*Placement in January 2017

**Placement in January 2018

***Placement in January 2019

42. FINANCIAL ASSETS AND LIABILITIES

As at 31 December 2018, the Group classified its cash and cash equivalents, trade receivables, other receivables, restricted time deposits, other current assets and other non-current assets amounting to US\$1,347,774 (2017: US\$1,558,920 and 2016: US\$1,405,986) as loans and receivables and available-for-sale financial assets amounting to US\$104,044 (2017: US\$253,844 and 2016: US\$nil).

As at 31 December 2018, the Group classified its trade payables, dividends payable, accrued expenses, loans from a third party, other liabilities, finance lease payables and bank loans amounting to US\$1,915,365 (2017: US\$1,838,947 and 2016: US\$1,777,945) as financial liabilities carried at amortised cost.

As at 31 December 2018, the Group classified its derivative (liabilities)/assets amounting to (US\$20,112) (2017: US\$3,300 and 2016: US\$3,954) as derivative financial instruments - cash flow hedges.

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43. FINANCIAL RISK MANAGEMENT

The Group's activities are exposed to a variety of financial risks: market risk (including the effects of foreign currency exchange rate risk, commodity price risk and interest rate risk), credit risk and liquidity risk. The objectives of the Group's risk management processes are to identify, measure, monitor and manage key risks in order to safeguard the Group's long-term business continuity and to minimise potential adverse effects on the financial performance of the Group.

The Group uses various methods to measure risk to which it is exposed. These methods include sensitivity analysis in the case of interest rates, foreign exchange and other price risks and aging analysis for credit risk.

(1) Financial risk factors**a. Market risk****(i) Foreign exchange risk**

The financing and the majority of the revenue and operating expenditure of the operating subsidiaries of the Company are denominated in US Dollars, which indirectly represents a natural hedge on exposure to fluctuations in foreign exchange rates. However, the Group is exposed to foreign exchange risk arising from dividend payments to the shareholders and other operating expenses in Rupiah.

Management has set up a policy to require companies within the Group to manage their foreign exchange risk against their functional currency. As at 31 December 2018, if the Rupiah had weakened/strengthened by 10% against the US Dollar with all other variables held constant, the post-tax profit for the period would have been US\$6,733 lower or US\$8,432 higher (2017: US\$6,599 lower or US\$8,221 higher and 2016: US\$7,447 lower or US\$8,941 higher), respectively, mainly as a result of foreign exchange gains/losses on the translation of cash and cash equivalents, restricted time deposits, trade receivables, trade payables and accrued expenses (2016: and prepaid taxes, taxes payable and provision for mine reclamation and closure).

(ii) Price risk

The Group's financial assets and liabilities are not significantly exposed to market risks related to the price volatility of commodity prices traded on world coal markets because the settlement of financial assets and liabilities is based on the prices stipulated in the coal sales and purchase agreements which will be determined at the time of delivery.

The Group is exposed to security price risk from investments which are available-for-sale and carried at fair value.

To manage price risk arising from investments in debt securities, the Group performs an analysis of the coupon rates offered on bonds and the required rate of return which is generally expected by the market. The performance of the Group's available-for-sale investments are monitored periodically.

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43. FINANCIAL RISK MANAGEMENT (continued)**(1) Financial risk factors** (continued)**a. Market risk** (continued)**(ii) Price risk** (continued)

As at 31 December 2018, if the price of available-for-sale financial assets had been 5% higher/lower with all other variables held constant, total equity would have increased or decreased by US\$5,202 (2017: US\$12,692 and 2016: US\$nil).

As at 31 December 2018, 2017 and 2016, the Group has derivative financial instruments to partly hedge against the fluctuations in fuel prices on its expected future fuel consumption based on its fixed price coal commitment. There were no other financial assets or liabilities with carrying amounts directly linked to market commodity prices or commodity derivative contracts.

(iii) Interest rate risk

The Group's interest rate risk arises from long-term borrowing denominated in US Dollars. The interest rate risk on cash is not significant and all other financial instruments are not interest bearing. Borrowings issued at variable rates expose the Group to cash flow interest rate risk. The Group has managed this risk by entering into interest rate swap agreements on a portion of its debt to reduce the impact of changes in interest rates on its floating rate debt (Note 19).

The Group analyses its interest rate exposure on a dynamic basis. Various scenarios are simulated taking into consideration the refinancing of existing positions, and alternative financing. Based on the above scenarios, the Group manages its cash flows interest rate risk by refinancing borrowings at a lower interest rate.

As at 31 December 2018, if interest rates on long-term borrowings had been 10 basis points higher/lower with all other variables held constant, the post-tax profit for the year would have been US\$907 (2017: US\$852 and 2016: US\$901) lower/higher.

b. Credit risk

As at 31 December 2018, the total maximum exposure from credit risk was US\$1,451,752 (2017: US\$1,815,996 and 2016: US\$1,409,860). Credit risk arises from cash in banks, time deposits, available-for-sale financial assets, trade receivables, other receivables, restricted time deposits, derivative financial instruments, other current assets and other non-current assets.

All the cash in banks, time deposits and restricted time deposits are placed in reputable foreign and local banks.

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43. FINANCIAL RISK MANAGEMENT (continued)**(1) Financial risk factors (continued)****b. Credit risk (continued)**

The Group manages credit risk exposure from its available-for-sale financial assets by monitoring the reputation and credit ratings of each individual counterparty. The credit quality of available-for-sale financial assets in listed securities can be assessed by reference to external credit ratings as follows:

	2018	2017	2016
Counterparties with external credit ratings (Fitch and Moody's):			
BBB / Baa2	89,147	233,042	-
BB- / Ba2	-	13,965	-
Total	89,147	247,007	-

As at 31 December 2018, 2017 and 2016, the balances outstanding from trade receivables, other receivables and other non-current assets were as follows:

	2018			
	Neither past due nor impaired	Past due but not impaired	Past due and impaired	Total
Trade receivables	354,560	16,334	-	370,894
Other receivables	6,036	-	-	6,036
Other non-current assets	-	-	20,000	20,000
Total	360,596	16,334	20,000	396,930

	2017			
	Neither past due nor impaired	Past due but not impaired	Past due and impaired	Total
Trade receivables	297,609	17,109	596	315,314
Other receivables	6,729	-	-	6,729
Other non-current assets	-	-	20,000	20,000
Total	304,338	17,109	20,596	342,043

	2016			
	Neither past due nor impaired	Past due but not impaired	Past due and impaired	Total
Trade receivables	295,232	5,457	28,131	328,820
Other receivables	4,399	-	-	4,399
Other non-current assets	-	-	20,000	20,000
Total	299,631	5,457	48,131	353,219

As at 31 December 2018, the Group did not provide any provision for impairment losses of receivables due to the Group's management believes that the receivables will be fully collected, while as at 31 December 2017 and 2016, the Group had fully provided for the balance of trade receivables and other non-current assets which are past due and impaired.

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(Expressed in thousands of US Dollars, unless otherwise stated)

43. FINANCIAL RISK MANAGEMENT (continued)**(1) Financial risk factors (continued)****b. Credit risk (continued)**

The entire outstanding balances from trade receivables and other receivables are mostly derived from customers/third parties/related parties which have transacted with the Group for more than 12 months and do not have any history of default.

Management is confident in its ability to continue to control and maintain minimal exposure to credit risk, since the Group has clear policies on the selection of customers, legally binding agreements in place for coal sales, mining services and other services rendered, and historically low levels of bad debts.

The Group's general policies for coal sales and rendering services to new and existing customers are as follows:

- selecting customers (mostly blue chip power plant companies) with strong financial condition and good reputations.
- acceptance of new customers and sales of coal and rendering services being approved by the authorised personnel according to the Group's delegation of authority policy.
- requesting payments by letter of credit for new customers.

As at 31 December 2018, 2017 and 2016, one party had an outstanding balance of 11%, 14% and 11% from the total receivables, respectively.

c. Liquidity risk

Liquidity risk is defined as a risk that arises in situations where the cash inflow from short-term revenue is not enough to cover the cash outflow of short-term expenditure. To manage its liquidity risk, the Group monitors its level of cash and cash equivalents, and maintains these at a level deemed adequate to finance the Group's operational activities and to mitigate the effect of fluctuations in cash flow. The Group's management also regularly monitors projected and actual cash flow, including loan maturity profiles and continuously assesses the financial markets for opportunities to raise funds. In addition, the Group has a stand-by loan facility which can be drawn upon request to fund its operations as and when needed.

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43. FINANCIAL RISK MANAGEMENT (continued)**(1) Financial risk factors (continued)****c. Liquidity risk (continued)**

The table below analyses the Group's financial liabilities at the reporting date into relevant maturity groupings based on the remaining period to the contractual maturity date. The amounts disclosed in the table represent contractual undiscounted cash flows including estimated interest payments:

	Less than three months	More than three months and not later than one year	More than one year and not later than five years	More than five years	Total
31 December 2018					
Financial liabilities					
Trade payables	341,766	-	-	-	341,766
Dividends payable	83,773	-	-	-	83,773
Accrued expenses	52,207	-	-	-	52,207
Other liabilities	6,296	-	-	-	6,296
Loans from a third party	207	632	13,993	-	14,832
Finance lease payables	11,720	32,313	135,326	-	179,359
Bank loans	61,369	186,048	1,148,011	1,843	1,397,271
Derivative financial instruments	4,664	12,926	2,522	-	20,112
Total	562,002	231,919	1,299,852	1,843	2,095,616
31 December 2017					
Financial liabilities					
Trade payables	279,163	-	-	-	279,163
Dividends payable	111,832	-	-	-	111,832
Accrued expenses	37,396	-	-	-	37,396
Other liabilities	17,509	-	-	-	17,509
Loans from a third party	200	612	17,248	-	18,060
Finance lease payables	9,281	28,841	52,216	-	90,338
Bank loans	97,372	156,888	1,183,090	2,703	1,440,053
Total	552,753	186,341	1,252,554	2,703	1,994,351
31 December 2016					
Financial liabilities					
Trade payables	207,794	-	-	-	207,794
Dividends payable	70,927	-	-	-	70,927
Accrued expenses	28,969	-	-	-	28,969
Other liabilities	20,566	-	-	-	20,566
Loans from a third party	-	685	17,367	-	18,052
Finance lease payables	9,676	24,118	41,812	-	75,606
Bank loans	40,007	128,247	1,368,027	-	1,536,281
Total	377,939	153,050	1,427,206	-	1,958,195

(2) Fair value estimation

The fair value of financial assets and liabilities is estimated for recognition and measurement or for disclosure purposes.

The fair value is the amount for which an asset could be exchanged or a liability settled between knowledgeable and willing parties in an arm's length transaction.

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43. FINANCIAL RISK MANAGEMENT (continued)**(2) Fair value estimation** (continued)

SFAS No. 68, "Fair value measurement", requires disclosure of fair value measurements through the following fair value measurement hierarchy:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2); and
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

The table below describes the carrying amount and fair value of the financial liabilities that are not presented by the Group at fair value:

	<u>Carrying amount</u>	<u>Fair value</u>
31 December 2018		
Finance lease payables	162,693	158,757
31 December 2017		
Finance lease payables	85,165	85,029
31 December 2016		
Finance lease payables	70,100	72,891

The fair value of finance lease payables is measured using discounted cash flows based on the interest rate of the latest finance lease payable entered into by the Group. Bank loans and loans from a third party are liabilities with floating interest rates, thus the carrying amount of the financial liabilities approximate their fair value. Fair value disclosure of finance lease payables is calculated using Level 2 inputs.

As at 31 December 2018 and 2017, the fair value of available-for-sale financial assets are measured using Level 1 and Level 3 of the fair value hierarchy.

As at 31 December 2018, 2017 and 2016, the derivative financial instruments are measured using a Level 2 method. The fair value is measured as the present value of the estimated future cash flows based on observable yield curves.

The carrying amounts of other financial assets and liabilities approximate their fair value due to the short-term nature of the financial instruments.

For the years ended 31 December 2018, 2017 and 2016, there were no transfers between levels.

(3) Capital risk management

In managing its capital, the Group safeguards its ability to continue as a going concern and to maximise benefits to the shareholders and other stakeholders.

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43. FINANCIAL RISK MANAGEMENT (continued)
(3) Capital risk management (continued)

The Group actively and regularly reviews and manages its capital to ensure the optimal capital structure and return to the shareholders, taking into consideration the efficiency of capital use based on operating cash flows and capital expenditure and also consideration of future capital needs.

The Group also seeks to maintain a balance between the level of borrowing and the equity position in order to ensure the optimal capital structure and return. There were no changes in the Group's approach to capital management during the year.

44. EVENTS AFTER THE REPORTING PERIOD
a. Changes in Company's Boards of Commissioners and Directors

Based on Notarial Deed No. 9 dated 11 June 2019 of Humbert Lie, S.H., S.E., M.Kn., the Company's Boards of Commissioners and Directors were changed as follows:

President Commissioner	:	Edwin Soeryadjaya
Vice President Commissioner	:	Theodore Permadi Rachmat
Commissioner	:	Arini Saraswati Subianto
Independent Commissioners	:	Dr. Ir. Raden Pardede Mohammad Effendi
President Director	:	Garibaldi Thohir
Vice President Director	:	Christian Ariano Rachmat
Directors	:	Julius Aslan Chia Ah Hoo M. Syah Indra Aman

b. Changes in composition of the Company's Audit Committee

As at the date of these consolidated financial statements, the composition of the Company's Audit Committee was changed as follows:

Chairman	:	Mohammad Effendi
Members	:	Ignatius Robby Sani Lindawati Gani

c. Dividends

At the Company's AGMS held on 30 April 2019, a total cash dividend for 2018 of US\$200,232 (US\$0.00626/share - full amount) was approved. This included the interim cash dividend for 2018 of US\$75,167, which was paid on 15 January 2019. The remaining US\$125,065 final cash dividend for 2018 was paid on 24 May 2019.

d. Legal case between MIP with PTBA

On 8 March 2019, the appeal was revoked by the Plaintiff, therefore the decision of the District Court of Lahat is legally binding.

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44. EVENTS AFTER THE REPORTING PERIOD (continued)

e. US\$70,125 Replacement Guaranteed Bridge Facility Agreement

On 27 March 2019, TPI entered into a US\$70,125 Replacement Guaranteed Bridge Facility Agreement with various financial institutions. The Company acts as the guarantor for a commitment equal to 65% of the total facility. As at the date of these consolidated financial statements, TPI had drawdown US\$68,659 of the facility.

f. US\$134,238 Post-FC Guaranteed Bridge Facility Agreement

This facility has been fully paid on 4 April 2019.

g. Loan Agreement with PT Trada Alam Minera Tbk ("TRAM")

On 5 July 2019, ACL entered into a Loan Agreement of US\$100,000 with TRAM. This loan bears interest at a certain percentage and will be due in 48 months from the first Utilisation Date to occur hereunder. As at the date of these consolidated financial statements, this loan has been fully drawdown by TRAM.

h. Banking Facilities

On 27 June 2019, AI amended its banking facility agreement with Bank Mandiri to extend the availability period of the facility to 27 April 2020.

On 20 April 2019, AP amended its banking facility agreement with MUFG Bank Ltd, Jakarta Branch, to extend the availability period of the facility to 20 April 2020.

On 16 August 2019, AI amended its banking facility agreement with PT Bank DBS Indonesia to extend the availability period of the facility to 15 October 2019.

On 19 September 2019, AI entered into a foreign exchange facility agreement with PT Bank UOB Indonesia. The facility is provided with a total limit amounting to US\$50,000. This facility is not bound by any collateral. The agreement is valid until 18 September 2020.

Up to the completion date of these consolidated financial statements, the banking facility agreements between the Company and BRI are still in the process of extension.

45. AUTHORISATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

These consolidated financial statements were authorised for issue in accordance with a resolution of the Board of Directors of the Company on 11 October 2019.

APPENDIX A — RPM REPORT



PT Adaro Indonesia Independent Technical Review

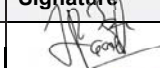
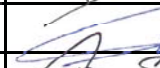
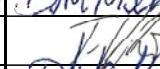
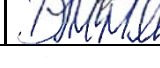
PT. Adaro Indonesia



Job Number: ADV-JA-04019
Date: 27 September 2019

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Authorisations				
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Executive Summary

PT Adaro Indonesia (Adaro) is the Adaro Group's largest mining company and operates in the Tanjung Regency of South Kalimantan province under a Coal Cooperation Agreement (CCA) with the Government of Indonesia. Adaro ownership is shared between Electricity Generating Authority of Thailand International Company Limited (EGATi), a state-owned electricity company of Thailand with 11.5% ownership, and PT Alam Tri Abadi, PT Viscaya Investment and PT Dianlia Setyamukti, which are subsidiaries of PT Adaro Energy Tbk, with an 88.5% ownership stake.

Adaro has requested PT. RungePincockMinarco ("RPM") undertake an Independent Technical Review ("ITR") focusing on the company's resources and reserves. The purpose of the ITR is to assist Adaro in a potential bond issuance.

The Adaro Indonesia operation ("Project") consists of three currently operating pits named Tutupan, Paringin and Wara which are located in the Tabalong and Balangan regencies of South Kalimantan. Construction started in October 1990, with first coal produced in September 1991 from the Paringin Pit. The Tutupan Pit was opened in 1997 and is now the primary source of coal production. The open pits produce an average of 50 Mtpa of low ash, low energy, run of mine ("ROM") product coal for domestic and international coal export markets. The Tutupan pit contributes approximately 75% of the current average annual coal production, with Wara contributing approximately 15% and Paringin approximately 10%. The proportion of coal production contribution from the three pits will change over time in accordance to the Life of Mine ("LOM") plan.

The Adaro operations are well operated and comply with Indonesian environmental and safety requirements. The required permits are held, and safety is taken seriously. The key safety observations since 2013 are that the actual safety performance has not achieved the planned performance for LTI and LTIFR. Whilst the safety statistics have not met plan in recent years, RPM notes that there is a general trend of improvement and that Adaro is targeting zero LTIFR which is a premium international standard. It is critical for Adaro to continue to promote high safety practices to protect all site personnel, and RPM is of the opinion, based on recent visits to the Adaro operations, that Adaro apply a high degree of focus to continually improve all aspects of safety.

Adaro holds a 1st generation Coal Contract of Work (CCoW) for the Project which is due to expire in 2022. The CCoW covers an area of 31,379.80 ha which includes within its boundary all the required land forecast for exploitation. Land compensation agreements have been completed for 25,000 ha. There remains approximately 2,000 ha of land yet to be compensated to the landowner within the planned Project footprint, based on land requirements estimated in the LOM plan (2018).

The deposit occurs in the Middle - Late Miocene Warukin Formation, and are divided into the Tutupan, Paringin and Wara areas. These main areas are then divided into smaller blocks; North Tutupan, South Tutupan, North Paringin, South Paringin, Wara 1 and Wara 2. The geology of the deposit can be described as a series of shallow to steeply dipping anticline-syncline structures. It has a northwest-southeast trending asymmetrical anticline, which is steeply dipping in the western flank, and then rolls over and creates a relatively flatter dipping syncline to the east. Adaro has completed extensive exploration over the deposit, particularly at the primary mining areas of Tutupan, Wara 1 and North Paringin. RPM is of the opinion that overall, the geological models and interpretations, including underlying data, are reasonable, and indicate that Adaro has a good understanding of the deposits.

PT. Adaro Indonesia's Coal Resource report formed the basis of RPM's review, being prepared in August 2018. Resource estimation used DataMine's MineScape software, which is widely used in the coal mining industry and is sufficient for Coal Resource modelling and estimation. Adaro's estimated Resources are reported in compliance with the JORC Code (2012 Edition) and total 5,238 Mt (3,079 Mt Measured, 1,014 Mt Indicated and 1,144 Mt Inferred Resources) as at the end of December 2017, as shown in **Table ES.1**.

Table ES.1 Adaro Coal Resources as at December 2017

Deposit	Adaro Coal Resources (Mt)				TM (ar)	Ash (ar)	VM (ar)	TS (ar)	CV (gar)	RD
	Measured	Indicated	Inferred	Total	%	%	%	%	Kcal/kg	In Situ
Tutupan South	713	207	263	1,183	28.5	2.7	35.1	0.13	4,862	1.27
Tutupan North	886	387	435	1,708	27.1	2.2	36.6	0.10	4,838	1.28
Wara 1	806	270	294	1,370	38.8	3.5	30.4	0.28	3,953	1.25
Wara 2**	355	26	16	397	43.3	3.0	29.1	0.22	3,666	1.22
North Paringin	298	86	92	476	28.6	3.7	33.5	0.25	4,758	1.29
South Paringin**	21	39	44	104	30.2	3.3	32.8	0.26	4,668	1.27
Total	3,079	1,014	1,144	5,238	31.9	2.9	33.7	0.18	4,512	1.27

**Source: Adaro Jababara Indonesia, "Estimate of PT Adaro Indonesia Coal Resources as at December 31, 2017", date of report 8 August 2018"*

***Wara 2 and South Paringin were not included in the RPM technical review*

The Coal Resource estimation parameters that were used by Adaro are, in most cases, acceptable. RPM's review indicates that the test for the reasonable prospect for eventual economic extraction of resources has not been fully completed. RPM believe that this is likely to have an impact on the reported Resources and recommend that future Coal Resource Estimates include the full application of assumptions to test the reasonable prospect for eventual economic extraction.

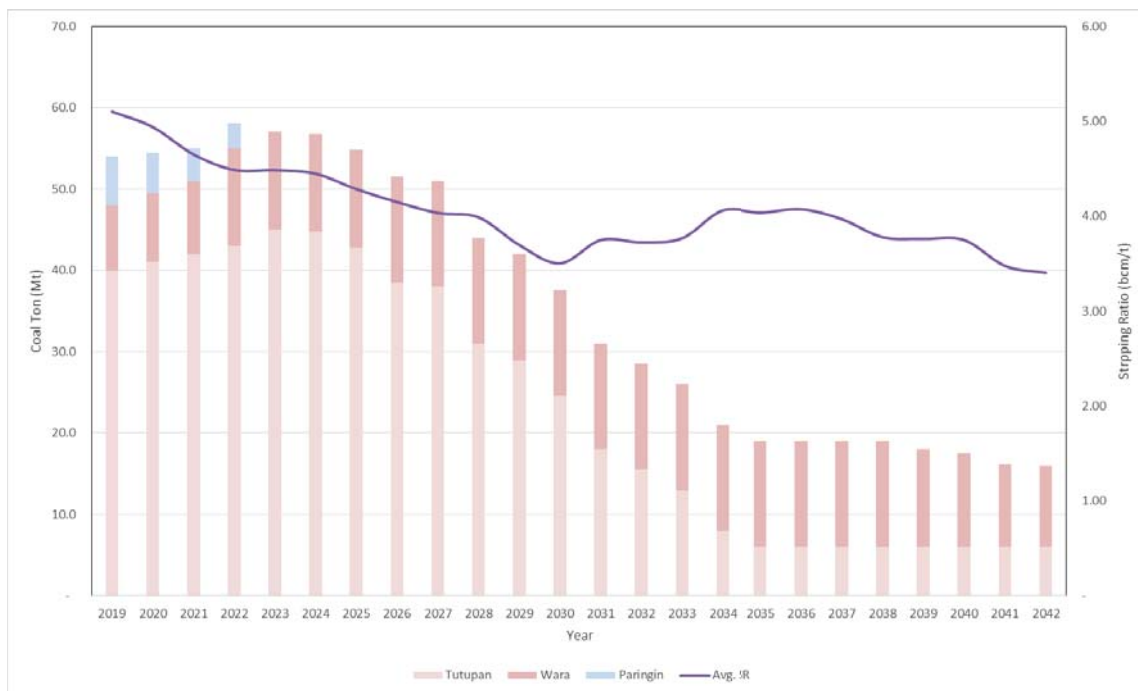
Mining and coal haulage operations are undertaken on behalf of Adaro by three contractors; PT Pamapersada Nusantara (PAMA), PT Bukit Makmur Mandiri Utama (BUMA), and PT Saptaindra Sejati (SIS). Open cut mining is conducted with hydraulic excavators loading a fleet of rigid haul trucks to remove overburden and coal. Waste is transported to the expit dump by conventional truck haulage with the balance going to in-pit dumps when final pit wall limits are reached. All coal is hauled by truck to the various ROM pads located adjacent to the pit crests for rehandling.

All ROM coal will be temporarily stored at ROM locations adjacent to pit crests. From there coal is loaded into B-double coal haulers and transported by road to the Kelanis Coal Handling Plant ("CHP") and port. ROM coal is called into the Kelanis facility as required based on the coal quality requirements. Three ROM stockpile areas are available which are used as a buffer on the CHP. The ROM stockpile area of between 25,000 m² and 30,000 m² contains an approximate two days storage at full capacity, which is small for an operation of this scale. Coal is crushed to 100% passing 50 mm through seven three-stage crushing systems. Crushed product coal can be either directly conveyed to the barge loaders or stacked on the product stockpiles. Product coal is reclaimed from stockpiles using dozers and underground bunker/reclaim conveyors. Discussions with Adaro during the site visit indicated that the Kelanis facility is stockpile capacity constrained due to the limited suitable land available for construction.

Adaro has demonstrated an ability to expand the mining operations to extract the current significant volumes of both coal and waste. Despite the stockpile capacity constraints at the Kelanis facility, Adaro reported peak production in 2014 which totalled 55 Mt of ROM coal at a strip ratio of 5.7 (bcm/t ROM). This equates to a peak production of approximately 680 Mt of total material in 2014.

The Adaro 2018 LOM plan is based on the Coal Reserve only. The LOM outlines coal and waste production from 2019 to 2042, a period of 24 years. For simplicity, the LOM plan can be described as being made up of three stages. Between 2019 and 2027 coal production is greater than 50 Mtpa with an approximate strip ratio of 4.5 bcm/t ROM. In 2028 coal production drops below 50 Mtpa and steadily declines to approximately 20 Mtpa in 2034. During this period the strip ratio is maintained at approximately 3.7 bcm/t ROM. From 2035 to 2042 coal production decreases from 20 Mtpa to 16 Mtpa, with strip ratio averaging 3.8 bcm/t ROM. Refer **Figure ES.1** following.

Figure ES.1 Adaro 2018 LOM Plan – Production Profile



Adaro mining operating cost estimation applies projected contract rates, which include ownership and margin, together with historical actual costs for operation of the mining facilities and overheads. Waste and coal mining haulage costs are based on the estimation of truck vertical and horizontal haulage components that are sourced from the LOM plan. The current contract rate haul matrix is then applied to estimate mining costs.

Contract unit rates are applied for road haulage, barging and Taboneo transshipment costs. Actual Kelanis port crushing and loading, marketing and administration costs, both onsite and offsite, are based on historical actual costs supplied by Adaro.

No development capital is included in the financial evaluation. Mine development is included as an operating cost. Sustaining capital has been estimated from scaled historical costs, and includes allowance for land compensation, roads and bridges, buildings, Kelanis port, equipment and water management. Mobile equipment capital, including mining, coal haulage, barging and transshipment, is included in contract rates.

Over the duration of the LOM plan, operating expenditure has an average cost of USD 41.6/t ROM coal. Capital expenditure totals USD 717.4 M over the same period. Summaries of operating expenditure and capital expenditure are tabulated in **Table ES.2** and **Table ES.3**, respectively.

Table ES.2 Summary of Operating Cost

Opex Items	Unit	North Tutupan	South Tutupan	Wara	Paringin
Mining Contractor Costs	USD/t	22.73	32.85	17.35	28.64
Operating Expenses Costs	USD/t	5.29	5.29	5.29	5.29
Others and Admin Costs	USD/t	9.96	9.96	9.96	9.96
Total OPEX	USD/t	37.98	48.10	32.60	43.89

Table ES.3 Summary of Capital Expenditure

Capital Expenditure	USD (millions)
Land Management	32.8
Coal Processing & Barge Loading	252.8
Mine Services	79.0
Haul Road	351.6
Project and Contract Management	1.1
Total	717.4

RPM is of the opinion that the capital and operating costs provided by Adaro for this technical review are appropriate for a mining operation of this scale, and at this point in its operating lifecycle.

All coal produced by Adaro is sold as thermal coal. Four products are produced under Adaro's Envirocoal label. These products are E5000, E4900 and E4700 (Tutupan and North Paringin) and E4000 (Wara). Product specifications are based on calorific value (CV), with secondary constraints being based on ash, total sulphur, moisture content, volatile matter, fixed carbon and the Hardgrove Index (HGI). **Table ES.4** indicates the Adaro coal product CV specification.

Table ES.4 Adaro Coal Product Specification

Quality	Unit	Basis	Coal Product			
			E5000	E4900	E4700	E4000
Moisture	%	ARB	26.5 - 29.5	28.0 - 30.5	29.5 - 33.0	39.0 - 43.0
Air Dried Moisture	%	ADB	14.5	14.5	18	20
Ash	%	ADB	2.0 - 3.0	2.0 - 3.5	2.0 - 3.5	2.0 - 4.0
Volatile Matter	%	ADB	40 - 44	40 - 44	39 - 43	38 - 42
Fixed Carbon	%	ADB	38 - 43	37 - 42	36 - 41	35 - 40
Calorific Value	kcal/kg	GAR	4,900 - 5,100	4,800 - 4,950	4,600 - 4,800	3,900 - 4,100
Calorific Value	kcal/kg	NAR	4,550 - 4,750	4,450 - 4,600	4,250 - 4,450	3,550 - 3,750
Total Sulphur	%	ARB	0.1 - 0.2	0.1 - 0.3	0.1 - 0.3	0.2 - 0.4
HGI	Index	-	46 - 50	46 - 50	43 - 47	58 - 63

**Source: "Table 11 Typical Product Quality Assumption - Adaro Indonesia, LOM Report" 2018*

Table ES.5 summarises the Coal Reserves as at 31st December 2017. The Coal Reserves total 915 Mt of which 844.4 Mt are categorised as Proven and 70.6 Mt categorised as Probable. The Coal Reserve report was prepared by PT. Adaro Indonesia in October 2018.

Table ES.5 Adaro Coal Reserves as at 31 December 2017

Deposit	Adaro Coal Reserve (Mt)			TM %	Ash (gar) %	VM (gar) %	TS (gar) %	CV (gar) Kcal/kg
	Proven	Probable	Total					
Tutupan South	134	3.9	137.9	27.44	2.06	36.05	0.11	4,991
Tutupan North	413.2	47.1	460.3	27.2	1.99	36.47	0.08	4,789
Wara 1	273.9	18.8	292.7	39.27	2.77	30.5	0.21	3,983
North Paringin	23.3	0.8	24.1	26.25	2.88	35.24	0.19	5,040
Total	844.4	70.6	915.0	31.07	2.27	34.46	0.13	4,568

**Source: "Adaro Indonesia, Estimate of PT Adaro Indonesia Coal Reserve as at 31th December 2017, October 2018"*

RPM has completed a technical review of the mining plan and accompanying data and are of the opinion that the Coal Reserves are estimated in accordance with the requirements of the JORC Code (2012 Edition).

A Net Present Value ("NPV") analysis for the Project has been undertaken by Adaro. The financial model developed by Adaro for this purpose is based on the operating and capital costs provided to RPM for review, revenue estimates being benchmarked using the Global Coal Newcastle coal price of USD 85/t. RPM is of the opinion that the financial model uses appropriate rates for discounting, tax, and depreciation. The financial model applies costs in real terms using escalation.

The financial model demonstrates a positive NPV for each of the Tutupan, Wara 1 and North Paringin pits. In addition, the financial model demonstrates a positive operating cumulative cashflow over the life of the operation using the consolidated results for each of the pits.

Whilst Wara 1 returned the lowest operating cumulative cashflow within the LOM plan, the cashflow remains positive for the duration of the pit life and increases as the pit reaches full depth and a stable advancing face is established mining from the north to the south. The Tutupan Pit operating cashflow dips initially, but increases as inpit dumping is established.

A deterministic sensitivity analysis of coal price, stripping ratio and haul distance has been undertaken by Adaro to test economic viability during the LOM plan. The sensitivity analysis used +/- 30% ranges which were applied to the selected variables. The results of the sensitivity analyses indicate that the NPV remains robust for the following mutually exclusive cases:

- 30% decrease in coal price.
- 30% increase in stripping ratio, and
- 30% increase in haul distance.

The data provided by Adaro is comprehensive covering geological models, scheduling and costing models and documents supporting the Life of Mine plan. There are some minor inconsistencies between documents; however, none of these appear material and are likely due to the on-going nature of planning studies, as additional data and more refined assumptions have become available.

RPM has not identified any fatal technical flaws in the Adaro LOM plan. However, RPM has identified potential risks to the Project. **Table ES.6** presents a tabular summary of RPM's findings and conclusions relative to the completeness of the project plans based on work reviewed and the potential impact of each information component provided to RPM. These tables are intended to provide insight into the risk associated with the Project. The format is intentionally brief to provide a rapid overview of the project status. Definitions of the terms used in this table are as follows:

Component identifies the information topic reviewed by RPM.

- Completeness expresses RPM's opinion of the coverage of the topic by the client and the Project group compared to the efforts of others on similar projects.
 - High Completeness indicates that the information provided to RPM meets or exceeds the norm of similar projects.
 - Medium Completeness indicates that the Client's data meets the norm of similar projects;
 - Low Completeness indicates that the data provided by the Client is somewhat less than the norm of similar projects. This level combined with a high impact potential suggests that additional analysis and engineering are required. Combined with a low impact potential it suggests that it is probably acceptable for valuation but may require additional information for adequate reporting.
- Impact **Potential** identifies the degree of sensitivity reflected in project economics by the category. This allows rapid identification of areas that require substantial scrutiny versus those areas less likely to affect overall project performance.
 - High Impact categories, such as reserves and recovery, have a high impact on cash flow. Relatively small variations in these areas could significantly alter the return on investment.

- Medium Impact categories, such as tailings, processing and power generation, can undergo minor to possibly medium variations without significantly affecting the overall project. Substantial variations, depending upon their nature, may significantly affect the overall project.
- Low Impact categories, such as the majority of the infrastructure, can undergo medium to substantial variation without significantly affecting the overall project.
- **RPM Risk Assessment** combines Completeness and Impact Potential in a subjective measure of the likelihood that the category poses any significant chance of adversely affecting the overall project.
 - **Low Risk** indicates one or more of the following combinations:
 - High Completeness with High, Medium or Low Impact. This indicates that the item is critical to the success of the project, and that [Client Name] has performed adequate analysis and engineering to assure anticipated performance.
 - Medium or Low Completeness with Low Impact. These are typically items which do not require a substantial amount of advance analysis and engineering and whose costs are known to a sufficient level to assure that estimates are not exceeded, regardless of the final design.
 - **Medium Risk** is applied to a category where additional work is required to adequately define, analyse or engineer an item to assure that future detail development work does not uncover unanticipated problems that could substantially affect the overall project. In RPM's opinion, additional information or engineering on these components will likely be required. Medium risk indicates one of the following combinations:
 - Low Completeness with Medium Impact.
 - Medium Completeness with High or Medium Impact.
 - **High Risk** is applied to a category where additional work is required and where presently unknown and/or unforeseen problems have a high probability of negatively affecting the overall project. High risk indicates one of the following combinations:
 - Low Completeness with High Impact.
 - High Impact with Aggressive Assumptions.

Table ES.6 Project Risk Analysis

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
GEOLOGY and RESOURCE MODEL				
Geology/Geologic Setting	High	Medium	Low	Sufficient work conducted. Geology of the area and the deposits appear to be well understood.
Exploration Drilling	High	Medium	Low	Drilling is adequate to define resources and provide sufficient samples for testing.
Data Collection	High	Medium	Low	Data collection is in line with industry standards.
QA/QC	High	Medium	Low	RPM completed site visit to PT. Geoservices and PT. Sucofindo and observed that both Laboratories routinely conduct QAQC work which includes equipment calibration and proficiency tests. Both Laboratories are independent and Internationally accredited.
Geologic Model	High	Medium	Low	The geologic model appears to be a reasonable interpretation of the mineralization style. Some issues were identified but coal

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				reconciliation shows good correlation between actual and planned.
Resource Estimates	Low	Low	Low	The Coal Resource estimate was prepared at the end of 2017. No consideration of coal resource depletion due to mine production has been made since 2017.
	Medium	Medium	Medium	A wider quality Points of Observation (PoO) spacing was used in Resource Classification for a number of seams in some areas. The primary impact will be on the Measured classification for the related seams in those areas.
	Medium	Medium	Medium	RPM's review indicates that the test for the reasonable prospect for eventual economic extraction of resources has not been fully completed as stipulated in JORC Code 2012 and Australian Coal Guidelines 2014.
MINING				
Economic Pit Limits	High	Medium	Low	Adaro economic pit shells were derived by Minex Lerchs-Grossman optimization process using contract mining costs, coal price assumptions, recommended total pit slope angles and relevant total mining recovery factors. LOM pit (Reserve) shells were designed based on the selected shell with adjustment made for physical constraints and/or planning constraints.
Reserve Estimates	Medium	High	Low	Approach to estimating Coal Reserves is reasonable. Statement reported in accordance with the requirement of the JORC Code (2012 Edition), The Coal Reserve does not include Inferred Resource, and is estimated based on the topography position at the end of 2017. (Note that the LOM 2018 has been updated using the topography position at the end of 2018). Coal Reserves are the subset of Coal Resources that are technically and economically viable. While the PoO spacing may lead to downgrading of primarily Measured

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				Resource to Indicated Resource, RPM opine that this is not likely to impact the overall Coal Reserve estimate.
Coal Availability	High	Low	Low	PT Adaro Indonesia is one of the largest mining companies in Indonesia and has a long history of operating. North Parangin Pit has been operational since 1991 and Tutupan and Wara 1 commenced production in 1997 and 2010 respectively. The estimated reserve mostly comprises Proven status (even after RPM's view on the impact of PoO) which reduces project risk.
Development Strategy	High	Low	Low	The mine scheduling is prepared by considering the margin of the pit based on the previous optimization result to ensure the result delivers the optimum profit. The sequences have led to an increase in the production of Pit North Tutupan, while decreasing the production of Pit South Tutupan. Strategic Planning provides the optimum sequence to avoid an imbalance to the contractor's fleet requirement. The total waste removal planned, and the waste hauling distance, are managed so that the bcm km movement is relatively stable or gradually increases/decreases, depending on the general view of the mine plan.
Coal prices	High	Medium	Medium	Whilst the coal price assumptions used by Adaro appear reasonable within the current economic climate, significant price reduction may necessarily impact short and medium-term operational decisions, such as in-pit dumping strategies and fast-tracking low strip ratio areas, and this may impact on the total available Reserves. This is a standard risk that applies to all operations and is not considered a specific risk to the Adaro operations
Mine Plans and Production Schedules	Medium	High	Low	Production schedule is considered achievable based on RPM's understanding of Adaro's recent production history.

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
Appropriateness of Mining Equipment	High	Medium	Low	Adaro's three contractors are first tier mining contractor groups operating in Indonesia and are well-known and with solid reputations in the industry. These contractors are able to supply the required equipment at short notice.
Contractor performance	Medium	Medium	Low	Adaro's uses three first tier mining contractor groups which operate throughout Indonesia and have solid reputations in the industry. Appropriate contractor performance is provided and supported by good contractor management from Adaro.
Mining Infrastructure	Low	Medium	Medium	All required infrastructure is in place. The Kelanis river port has a maximum capacity of 75 Mtpa. Mining, coal haulage and barging equipment is contractor supplied. However, Kelanis stockpiles hold 350,000 tonnes of coal, being approximately two days capacity.
Mine Capital Costs	High	Medium	Low	No development capital is included in the financial evaluation. Mine development is included as an operating cost. Sustaining capital in real US\$ terms has been estimated from scaled historical costs. Includes allowance for land compensation, roads and bridges, buildings, Kelanis port, equipment and water management. Mobile mining equipment capital is included in contract rates.
Mine Operating Costs	High	Medium	Low	Operating costs in real US\$ terms use current contract rates (rates include ownership and margin), or the actual costs for operating the facilities. Waste and coal planning/scheduling allows estimation of truck vertical and horizontal haulage components. The current contract rate haul matrix is then applied to forecast mining costs. Contract unit rates are applied for road haulage, barging and Taboneo transshipment costs. Actual Kelanis port crushing and loading, IBT, marketing and administration costs, both onsite

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				and offsite, are actual rates supplied by Adaro
COAL METALLURGY AND PROCESSING				
Process Flowsheet	Medium	Low	Low	The coal processing flow sheet is common to many producing coal mines in Indonesia. Kelanis CHP and port has a maximum capacity of 75 Mtpa. This capacity is adequate to support the LOM production target per the updated 2018 LOM plan
GEOTECHNICAL				
Pit Slopes	High	Medium	Medium	Adaro has applied the geotechnical recommendations from their internal technical department to develop the design parameters used to generate the pit designs. There appears to be sufficient access into the pit for efficient operations. Adaro has applied high standard procedures for the geotechnical monitoring of the current mining operations which will provide data to refine and improve geotechnical knowledge and inputs.
Geotechnical, wall failure	High	Medium	Medium	Adaro's focus has been on short term stability. A significant pit wall failure could have long term implications for the project in terms of remediation works to re-establish pit access, increased stripping costs to ensure stable slopes, reduced mining rates, reduced mineable quantities of coal, and delays to accessing Coal Reserves. In RPM's opinion, wall slope stability requires constant focus from Adaro, particularly with mining at increased depths.
Geotechnical, dump failure	High	Medium	Low	Although a dump failure has not been experienced at the Adaro mine sites, potential exists for this to occur. Such event could cause disruption to mining operations for an extended period of time, and lead to a reduction in planned dump height. If the dump height is limited due to geotechnical reasons then there may not be sufficient dump capacity at the mine. Under this scenario alternate mine plan

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				options would be required that target smaller pit shells operating at higher operating costs or generate more in-pit dumping potentially sterilising Reserves.
PERMITTING, ENVIRONMENTAL, SOCIAL and COMMUNITY				
Environmental Social Impact Assessment and other documentation	Medium	High	Medium	Environmental approvals and permits are in place for up to 80 Mtpa of coal production from three pit areas, including the location of external dumps and mine infrastructure outside of Concession area.
Mining Permits and Authorizations	Medium	High	Medium	The Adaro CCoW expires in 2022. Extension or potential changes to the contract now become a high priority issue for Adaro in order to ensure the continuity of coal supply from the Adaro operations. Government intervention and/or social issues that prevent access to coal resource can impact productivity and mining costs and therefore, could impact the economic viability of Coal Reserves
Land Compensation	High	Medium	Medium	Increases in land compensation expenses and delays to land compensation could result in increased mining costs and reduced access to Coal Reserves.
Other Government Permits	High	Medium	Medium	The inability to gain required forestry permits and to not be able to dump outside of the mine lease would result in significant dumping constraints and ultimately increase haul distances, and, subsequently, increase mining costs.
Environmental	High	Medium	Medium	Adaro management must ensure environmental management plans are maintained according to the terms of the environmental permits and approvals. These include ARD, surface water and discharge and rehabilitation management plans. In addition, Adaro management must ensure that sufficient monitoring is in place to avoid non-compliances and that monitoring plans are submitted to the Central and Provincial Authorities quarterly with Authority inspections twice a year. Failure to do this may jeopardize mining rights to the deposit and access to Coal Reserves.
Reclamation/Closure	High	Medium	Medium	As measured at the end of 2017, approximately 1,343 ha of land has

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				been rehabilitated over a five year period, with an average achievement of 108% of the plan. Adaro plans to rehabilitate 1,538 ha of disturbed land during the next 5 years commencing in 2019. The plan for future rehabilitation is submitted annually to the government and includes an estimate of rehabilitation costs. Adaro include the cost of rehabilitation in their annual operating budget.

Limitations and Exclusions

This report was prepared by RPM at the request of Adaro and in accordance with the terms and conditions of its engagement. Other than as expressly agreed by RPM in writing or as required by operation of law, RPM does not authorise nor does it accept any liability to any other party who chooses to rely on this report. Any such reliance is at the user's sole and exclusive risk.

This Report is based on various reports, plans and tabulations provided by or on behalf of Adaro either directly from the site and other offices, or from reports by other organizations whose work is the property of Adaro. This Report contains forecasts, estimates and findings that may materially change in the event that any of the information supplied to RPM is inaccurate or is materially changed.

Adaro has not advised RPM of any material change, or event likely to cause material change, to the estimates, result or forecasts. The report has been produced by RPM in good faith using information that was available to RPM as at the date stated on the cover page.

This review specifically excludes all aspects of legal issues, commercial and financing matters, land titles and agreements, except such aspects as may directly influence technical, operational or cost issues and where applicable to the JORC Code guidelines.

The ability of any person to achieve forward-looking production and economic targets is dependent on numerous factors that are beyond RPM's control and that RPM cannot anticipate. These factors include, but are not limited to, site-specific mining and geological conditions, management and personnel capabilities, availability of funding to properly operate and capitalize the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner, unforeseen changes in legislation and new industry developments. Any of these factors may substantially alter the performance of any mining operation.

Notwithstanding the above, in RPM's opinion, the data and information provided by or on behalf of Adaro was reasonable and sufficient for the purposes of the Independent Technical Review and nothing discovered during the preparation of this Report suggests that there was any significant error or misrepresentation of such data or information.

Independence

RPM provides independent advisory services to the mining and finance sectors. Within its core expertise it provides independent technical reviews, resource evaluation, mining engineering and mine valuation services to the resources and financial services industries.

RPM and the Competent Persons involved in the preparation of this Report have independently assessed the Project by reviewing pertinent data, including resources, reserves, manpower requirements and the life of mine

plans relating to productivity, production, operating costs and capital expenditures. All opinions, findings and conclusions expressed in this Report are those of RPM, the Competent Person and specialist advisors.

Drafts of this Report were provided to Adaro, but only for the purpose of confirming the accuracy of factual material and the reasonableness of assumptions relied upon in this Report.

RPM has been paid, and has agreed to be paid, professional fees for the preparation of this Report. The remuneration for this Report is not dependent upon the findings of this Report. Neither RPM nor the Competent Person(s) have any economic or beneficial interest (present or contingent), in the Project, in securities of the companies associated with the Project or Adaro.

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Appendix A	Adaro Coal Reserves Table 1 JORC Checklist

Acronyms & Abbreviations

Abbreviation	Term
%	percent
ASTM	American Society for Testing Materials
AS	Australian Standard
Arb	as received basis
IDR	Indonesian Rupiah
BCM	bank cubic metre
°C	degrees Celsius
CHP	Coal Handling Plant
CPI	Consumer Price Index
CV	Calorific Value
EQM	Equilibrium Moisture
FOB	Free On Board
FOR	Free On Rail
GJ	gigajoule
GPS	Global Positioning System
ha	Hectare(s)
HGI	Hardgrove Grindability Index
ISO	International Standard Organization
JORC	Joint Ore Reserves Committee
K	kilo
Kcal	kilocalorie
Kg	kilogram
Km	kilometre
km ²	square kilometre
LG shell	Shell of mine based on Lerchs- Grossman optimisation
LOM	Life of Mine plan
LIDAR	Light Detection and Ranging
M	metre
mm	millimetre
M	million
MJ	megajoule
Mt	megatonne
MW	megawatt
pa	per annum
PJ	petajoule
Pit Shell	Mine design
RL (mRL)	Reduced Level (elevation above sea level)
ROM	run of mine
SE	specific energy
Shell	basic mine shape
t	tonne
tpa	tonnes per year
tph	tonnes per hour
TW	terawatt
TS	Total Sulphur
USD	United States dollar
UTM	Universal Transverse Mercator
RD	Relative Density
WGS	World Geographic System

1. Introduction

1.1 Background

PT Adaro Indonesia (Adaro) is the Adaro Group's largest mining company operating in Tanjung Regency of South Kalimantan province under a Coal Cooperation Agreement ("CCA") with the Government of Indonesia. Adaro ownership is shared between Electricity Generating Authority of Thailand International Company Limited ("EGATi"), a state-owned electricity company of Thailand with 11.5% ownership, and PT Alam Tri Abadi, PT Viscaya Investment and PT Dianlia Setyamukti, which are a subsidiary of PT Adaro Energy Tbk, with an 88.5% ownership stake.

Adaro has requested PT RungePincockMinarco ("RPM") undertake an Independent Technical Review ("ITR") focusing on the company's resources and reserves. The purpose of the ITR is to assist Adaro by completing a technical review to support a proposed bond issuance.

1.2 Relevant Asset

The Adaro Indonesia operation ("Project") is an open cut mine producing low-ash, low-energy run of mine ("ROM") product coal for domestic and international coal export markets. Operations are located in the Tabalong and Balangan regencies of South Kalimantan.

The Adaro Indonesia operations consist of 3 currently operating pits named:

- Tutupan;
- Paringin; and
- Wara.

Mining is undertaken by open cut mining methods using truck and excavator with predominantly expit dumping of overburden removal. Coal mining is also undertaken by truck and excavator mining methods, with Run of Mine ("ROM") coal being delivered to a series of ROM stockpiles at the pit crest. ROM coal is then transported 75 km by road transport on a privately-owned haul road to the Kelanis barge loading facility for subsequent barging to the coast via the Barito River.

Mining commenced in 1991 in the Paringin Pit. The Tutupan Pit was opened in 1997 and has been the primary source of coal since the Paringin Pit ceased operating in 2001. Current production is 60 Mt ROM coal per annum.

1.3 Capability and Independence

RPM operates as an independent technical consultant providing resource evaluation, mining engineering and mine valuation services to the resources and financial services industry.

RPM has been paid, and has agreed to be paid, professional fees for the preparation of this report. However, none of its management or staff who contributed to this report has any interest in:

- Adaro or its related parties, or
- The mining assets reviewed, or
- The outcomes that arise from this report.

1.4 Data Sources

Data has been made available for this ITR by Adaro in the form of a physical data room. Data has been progressively added to this data room and a question and answer mechanism has also been provided.

1.5 Independent Technical Review – Scope of Work

RPM completed the Independent Technical Review based on the agreed Scope of Work ("SOW") which is outlined below.

- Undertake a site visit (RPM's Geologist and Mining Engineer) with focus on:
 - Review of Project geology,
 - Review of Coal Resources;
 - Confirm major project characteristics such as mining titles;
 - Review of mine planning information, mining methodology, mining strategy, mine production plan and Life of Mine ("LOM") planning;
 - Review of Coal Reserves;
 - Review the general site layout before undertaking a review of the key site assets;
 - Review the mining areas including mining working faces, waste dump areas, mobile and fixed mining infrastructure;
 - Review of rehabilitation works associated with mining and gain understanding of environmental programmes;
 - Provide a general assessment of the condition of all fixed and mobile facilities;
 - Review the transportation routes and port facilities;
 - Review all other critical infrastructure assets;
 - Meet with key staff on site to gain familiarisation with the project and key issues; and
 - Gain an understanding of Project risks and opportunities.
- Review of the JORC Mineral Resource Estimate and Statement:
 - Review relevant QAQC information for the drilling completed to ensure the underlying data is of suitable quality with sufficient coal quality test work completed;
 - Review the coal seam correlations and coal quality geo-statistical analysis;
 - Review the structural and geology models;
 - Review the coal resource estimate ensuring appropriate methodologies and estimation parameters,
 - Review the classification of the coal resource estimates,
 - Review the compiled Statement of Mineral Resource; and
 - Comment on any geological or resource related risks and opportunities.
- Review of the mining study including:
 - Pit limit selection or mine layout criteria;
 - Selected working sections;
 - Applied loss and dilution modifying factors;
 - In-situ to ROM model conversion
 - Mine design parameters taking into consideration geotechnical or hydro-geological inputs;
 - Practicality of proposed pit and dump development strategy;
 - Forecast production rates and schedules ensuring they are practical and achievable;
 - Equipment suitability for the characteristics of the deposit, proposed mining methods and production rate;
 - Forecast operating costs. Including the basis for the estimated operating costs and their application over the life of mine schedule;
 - Forecast capital costs. Including the basis for the estimated capital costs and their application over the life of mine schedule; and,
 - Comment on any mining risks and opportunities.
- Review of the JORC Reserve estimate and Statement;
 - Consideration of relevant modifying factors;

- Application of project constraints;
 - Reasonableness of economic parameters; and,
 - Comment on any JORC Reserve risks and opportunities.
- Review of coal handling and stockpiling facilities;
 - Review of operating performance; and,
 - Comment on any risks and opportunities
- Review of the open pits and associated mining infrastructure;
 - Review of operating performance; and,
 - Comment on any risks and opportunities.
- Review of on-site and off-site infrastructure;
 - Practicality of infrastructure;
 - Site services;
 - Review of operating performance; and,
 - Comment on any infrastructure risks and opportunities
- Review of Environmental and Social factors:
 - Current approval status;
 - Review environmental management plan, including review of the forward work plan and reasonableness of estimated time frame;
 - Review closure plan; and,
 - Comment on environmental risks and opportunities;
- Consolidated review of the project operating and capital costs;
 - Review of forecast operating and capital costs over the life of mine;
 - Review the basis for cost estimation and estimated accuracy of the estimate;
 - Comment on the reasonableness of the cost estimates and associated opportunities and risks;
- Review of any forecast project development;
 - Review the project development milestones, critical path items and the likelihood of the overall timeframe to be achieved;
 - Assess how the overall project development program inter-relates and comment on reasonableness as well project development opportunities and risks;
- Prepare an Independent Technical Report based on the findings of the high-level review:
 - Describe the technical aspects of the project (as per outlined scope);
 - Summarise key technical inputs to the asset valuation, associated risks and opportunities and recommended sensitivities.
 - Discuss project risks and opportunities

1.6 Limitations and Exclusions

This report was produced by or on behalf of PT. RungePincockMinarco ("RPM") solely for PT. Adaro Indonesia ("Adaro", "AI", and the "Client") under and subject to the agreement terms and conditions between RPM and Adaro under which RPM prepared the report.

RPM's review was based on various reports, plans and tabulations provided by the Client either directly from the mine site and other offices, or from reports by other organizations whose work is the property of the Client. In RPM's opinion, the information provided by Adaro was reasonable and nothing discovered during the preparation of this report suggested any significant error or misrepresentation in respect to that information. Several versions of geological models were provided throughout the course of the review as different models have been used for the 2017 LOM plan, Resources and Reserves statements. RPM has relied upon the accuracy of this information for this study. RPM accepts no liability for the accuracy or

completeness of data and information provided to it for the purposes of undertaking this ITR even if this data and information has been incorporated into or relied upon in creating this report.

The Client has not advised RPM of any material change, or event likely to cause material change, to the operations or forecasts since the date of Assets inspections. The work undertaken for this Report is that required for a technical review of the information, coupled with such inspections as the Team considered appropriate to prepare this Report. This report specifically excludes all aspects of legal issues, land titles, agreements and Native Title, or commercial and financing matters except such aspects as may directly influence technical, operational or cost issues and where applicable to the JORC Code guidelines. RPM has specifically excluded making any comments on the competitive position of the relevant Assets compared with other similar and competing producers around the world. RPM strongly advises that any potential investors make their own comprehensive assessment of both the competitive position of the relevant Assets in the market and the fundamentals of the coal markets at large.

This Report has been prepared by RPM for the purposes of Client for inclusion in its Offering Memorandum and is not to be used or relied upon for any other purpose. RPM will not be liable for any loss or damage suffered by a third party relying on this report or any references or extracts therefrom contrary to the purpose (regardless of the cause of action, whether breach of contract, tort (including negligence) or otherwise) unless and to the extent that RPM has consented to such reliance or use.

RPM has prepared this report having regard to the particular needs and interests of the Client, and in accordance with the Client's instructions. It did not draft this report having regard to any other person's particular needs or interests. Your needs and interests may be distinctly different to the Client's needs and interests, and the report may not be sufficient, fit or appropriate for your purposes.

RPM has created this report using data and information provided by or on behalf of the Client and Client's agents and contractors. Unless specifically stated otherwise, RPM has not independently verified that data and information. RPM accepts no liability for the accuracy or completeness of that data and information, even if that data and information has been incorporated into or relied upon in creating this report (or parts of it). The conclusions and opinions contained in this report apply as at the date of the report. Events (including changes to any of the data and information that RPM used in preparing the report) may have occurred since that date which may impact on those conclusions and opinions and make them unreliable. RPM is under no duty to update the report upon the occurrence of any such event, though it reserves the right to do so.

1.7 Inherent Mining Risks

Coal mining is carried out in an environment where not all events are predictable.

The ability of any person to achieve forward-looking production and economic targets is dependent on numerous factors that are beyond RPM's control and that RPM cannot anticipate. These factors include, but are not limited to, site-specific mining and geological conditions, management and personnel capabilities, availability of funding to properly operate and capitalise the operation, variations in cost elements and market conditions, developing and operating the mine in an efficient manner, unforeseen changes in legislation and new industry developments. Any of these factors may substantially alter the performance of any mining operation.

Whilst an effective management team can identify the known risks and take measures to manage and mitigate those risks, there is still the possibility for unexpected and unpredictable events to occur. It is not possible therefore to totally remove all risks or state with certainty that an event that may have a material impact on the operation of a coal mine, will not occur.

1.8 Terms

All currency is expressed in United States Dollars ("USD") unless otherwise stated.

1.9 Report Preparation Team

RPM personnel who contributed to the preparation of this report were:

- Gamet Nugroho
- Oki Wijayanto
- Gusti Sumardika
- Lukman Hakim
- Dave McMillan
- Tim Knight

2. Asset Overview

2.1 Location

The mine is located in the province of South Kalimantan, Indonesia, some 230 km by road north of the city of Banjarmasin, the provincial capital of South Kalimantan (refer **Figure 2.1**). The town of Tanjung is the nearest regional centre, some 20 km north of the mine. Tanjung is the administrative centre of the Regency of Tabalong. The population of this district is estimated at some 200,000 people. Parts of the mine are located within the Balangan district boundaries, which is administered from the town of Paringin. There are numerous villages in the areas surrounding the mine.

The Kelanis facility is located in the province of Central Kalimantan, approximately 75 km west of the mine, within the district boundaries of the Barito Selatan Regency, which is administered from Tamiang. Parts of the haul road lie within the district of Barito Timur. There are 4 local governments involved with the Adaro Indonesia operations.

2.2 History

The area was first identified in the early 1900's when Dutch geologists mapped thick exposures of low energy coal. More recent exploration activities were carried out by Pertamina (State owned oil company) during their pursuit of oil in the late 60's and 70's and the Spanish Government company, Enadimsa. They were the first company to hold the Adaro Coal Cooperation Agreement area. Exploration by Enadimsa in the mid 1980's outlined a large resource of low-sulphur, low-ash coal close to the surface.

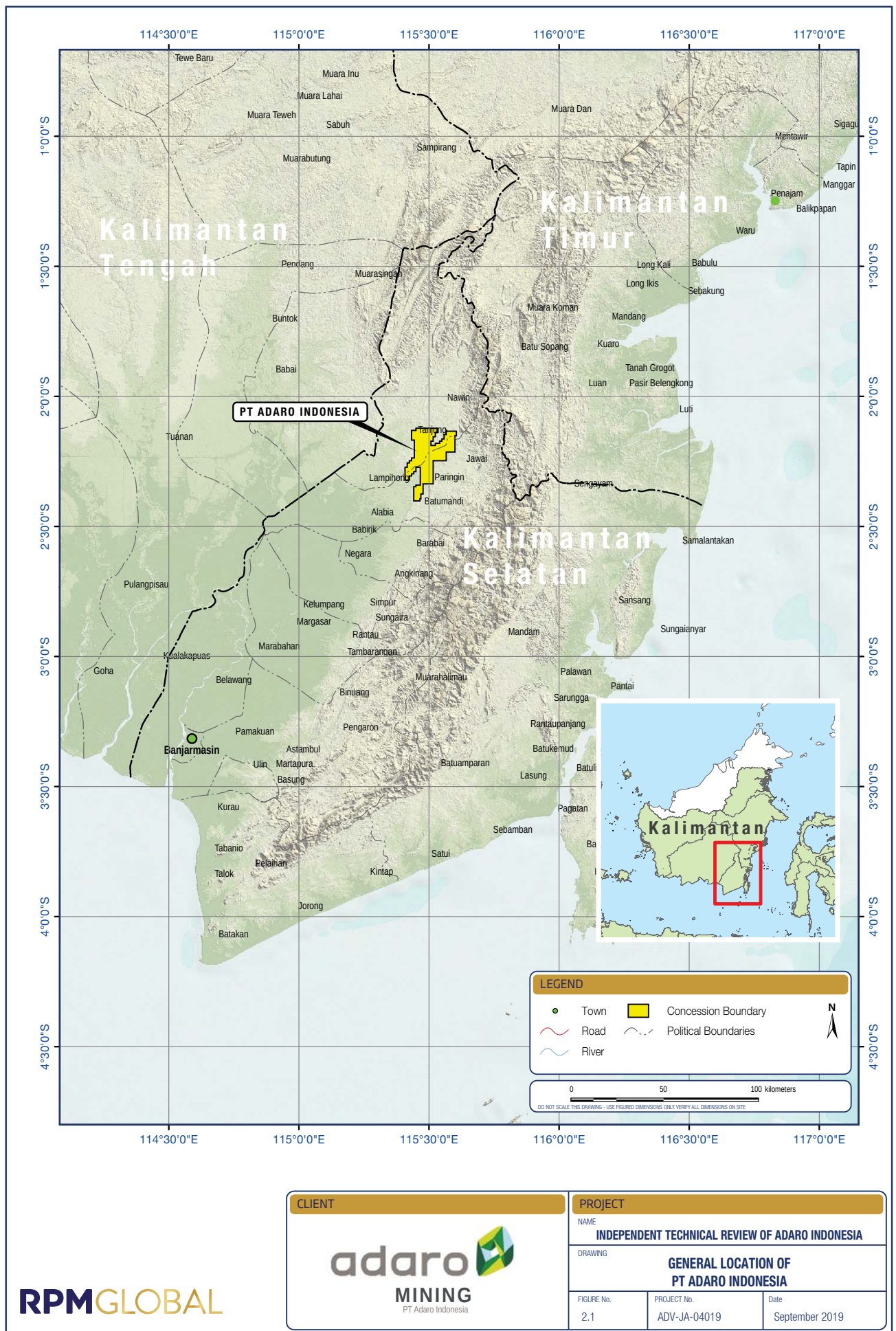
A group of Indonesian and Australian investors recognised the potential of this coal and, due to its favourable properties and to gain market awareness, the trademarked name Envirocoal was established.

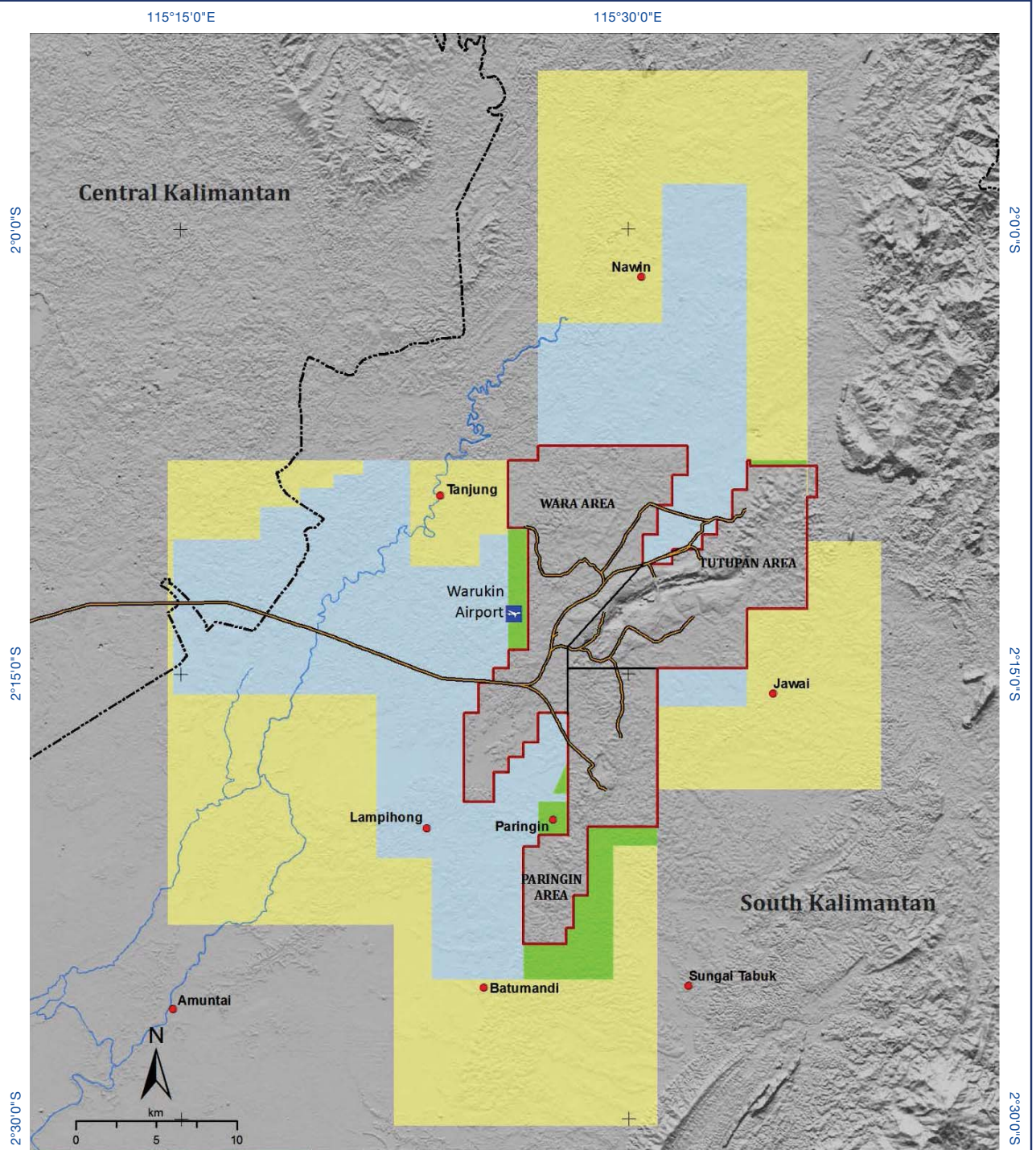
Construction started in October 1990 and first coal was produced in September 1991 from the Paringin Pit. In 1997 the Tutupan Pit was opened and is now the primary source of coal production. Mining from the Paringin Pit ceased in 2000, operations recommenced in 2010. A trial pit was established at Wara 1 area between 1995 and 1998; production continues at Wara though at reduced rates.

2.3 Coal Agreement Area and Land Ownership

Adaro currently holds the Adaro Coal Co-operation Agreement ("CCA") within the South Kalimantan Province, Indonesia. The Adaro CCA is a first-generation agreement between the Government of the Republic of Indonesia and Adaro to mine coal within the CCA in the Tanjung district until 2022. Rights exist within the agreement for a 2 x 10-year extension by mutual agreement. This agreement is valid until 2022 with the right to extend the contract period. On January 2018, Adaro and Ministry of Energy of Mineral Resources executed an amendment to CCA which constituted the adjustments to the provisions of CCA in order to comply with the provision of the Law no. 4 of 2009 on Mineral and Coal Mining pursuant to the requirement as set forth in the article 169 of the said law.

Adaro holds a 1st generation Coal Contract of Works, ("CCoW"), for the project area which is due to expire in 2022. The Coal Contract of Work area is shown **Figure 2.2** and covers an area of 31,379.80 ha. **Table 2.1** lists the key permits relating to the project as outlined in the 2015 JORC Reserves Report. The 2015 JORC report states that land compensation agreements have been completed for 25,000 ha and that there is still approximately 2,000 ha of land yet to be compensated for within the planned project footprint.





Source: Estimate of PT Adaro Indonesia Coal Resources as at December 31, 2017

LEGEND	
●	Town
—	Road
—	River
	Adaro Indonesia CCoW
	First Relinquishment
	Second Relinquishment
	Third Relinquishment

RPMGLOBAL

CLIENT		PROJECT	
 adaro MINING PT Adaro Indonesia		NAME INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA	
		DRAWING SITE LAYOUT PT ADARO INDONESIA	
FIGURE No. 2.2	PROJECT No. ADV-JA-04019	Date September 2019	

Table 2.1 Adaro Indonesia Permits Summary

Permit Name	Permit Number	Expiry Date	Issued By
Coal Contract of Work	J2/Ji.DU/52/82	30 Years	Indonesia Republic Government
Mining Area of Coal Contracts of Work (PKP2B)	SK No 250.K/30/DJB/2017	Up to 2022	Directorate General of the General Mining
Feasibility Study	1759/3 1.02/DBB/2012	Up to 2022	Directorate General of Mineral and Coal, Energy and Mineral Resources of Indonesia
Environmental Permit	No.246/Menlhk/Setjen/PKTL.4/3/2016	Up to 2022	Ministry of Environment
Budget Performance Plan (RKAB) 2018	SK No. 751/87.03/DJB/2018	2018	Directorate General of Mineral and Coal, Energy and Mineral Resources of Indonesia
Annual Working Plan, Technique and Environmental Plan (RKTTL) 2013	SK No. 2154/37.07/DBT/2013	2013	Directorate General of Mineral and Coal, Energy and Mineral Resources of Indonesia
Permit Usage of Forest Area:			
Phase 1	SK.365/Menhut-II/2013	up to 2022	Ministry of Forestry
Phase 2	SK.4165/MenLHK-PKTL/REN/PLA.0/6/2018	up to 2022	Ministry of Forestry
Phase 3	SK.1680/Men-LHK-PKTL/REN/PLA.0/4/2018	up to 2022	Ministry of Forestry
Phase 4	SK.615/Menhut-II/2013	up to 2022	Ministry of Forestry
Haul Road	SK. 17/1/PPKH/PMA/2017	up to 2022	Ministry of Forestry
Mine Closure Plan	SK No.279/30/DJB/2012	up to 2027	Directorate General of Mineral and Coal, Energy and Mineral Resources of Indonesia
Determination of Reclamation Guarantee 2018 – 2022	SK 2776/30/DJB/2017	up to 2022	Directorate General of Mineral and Coal, Energy and Mineral Resources of Indonesia
Technical Recommendations of Outside Coal Contracts of Work (PKP2B) Area Utilization	SK No. 2062/37.02/DBT/2011	Up to 2022	Directorate General of Mineral and Coal, Energy and Mineral Resources of Indonesia
Permit of Area Utilization Outside Coal Contracts of Work (PKP2B)	SK No. B-31/540/Tamb/I/2011	Up to 2022	Balangan Regent

*Source: "Table 3 Adaro Indonesia Mining Permits - Adaro Indonesia, LOM Report" 2018

No critical tenure issues are apparent within the CCA, Pertamina Tapian Timur area have been mined in early 2018, at this stage Adaro and Pertamina have agreement for replacing Pertamina wells and infrastructure in Tapian Timur area to another location.

The Tutupan mine plan requires waste to be dumped outside of the CCA. Adaro has reasonable expectations that all required land ownership issues, permitting and compensation agreements will be finalized in a timely manner. Waste dumping has occurred and water management structures currently exist outside of the CCA.

The land ownership structure is shown in **Figure 2.3**. In the 2015 JORC Reserves Report, Adaro report that 25,000 ha of land has been compensated and that there remains approximately 2,000 ha of land yet to be compensated within the Life of Mine Footprint. Purchase of land from the local community has proceeded successfully to date, largely based on a strategy of ensuring long lead times for negotiation. Adaro has established a mine department specifically to address this issue with procedures in place to facilitate land purchases. The current approach to land purchase is to assign priorities over the proposed mining and dumping areas and focus on immediate requirements. RPM notes that “compensated land generally remains an asset under a separate subsidiary PT Adaro Persada Mandiri (APM), which is controlled by Adaro Energy” (2015 JORC Reserves Report).

Land required by the Adaro Indonesia operations for the construction of settling ponds, waste dumping, mining or other mining activities is generally compensated as required. Currently Adaro Indonesia has compensated approximately 25,000 ha, where approximately 1,000 ha of land requires compensation within the current footprint of the future mining area (see Figure 2). Compensated land generally remains an Asset under a separate subsidiary PT Adaro Persada Mandiri (APM), which is controlled by Adaro Energy.

2.4 Geography

The topography in the Mine varies from flat to moderately hilly though some steeper areas exist where stream incisions have formed valleys. The elevation varies from 30 mRL in the lower, swampy plains to a topographic high of 200 mRL in the Tutupan Hills. The areas of lower topographic relief are covered by small rice fields, rubber plantations or unproductive grasslands. The hilly area at Tutupan contains pockets of remnant forests.

A total of 36 villages are in close proximity to the mine and another 26 villages are located along the haul road to Kelanis.

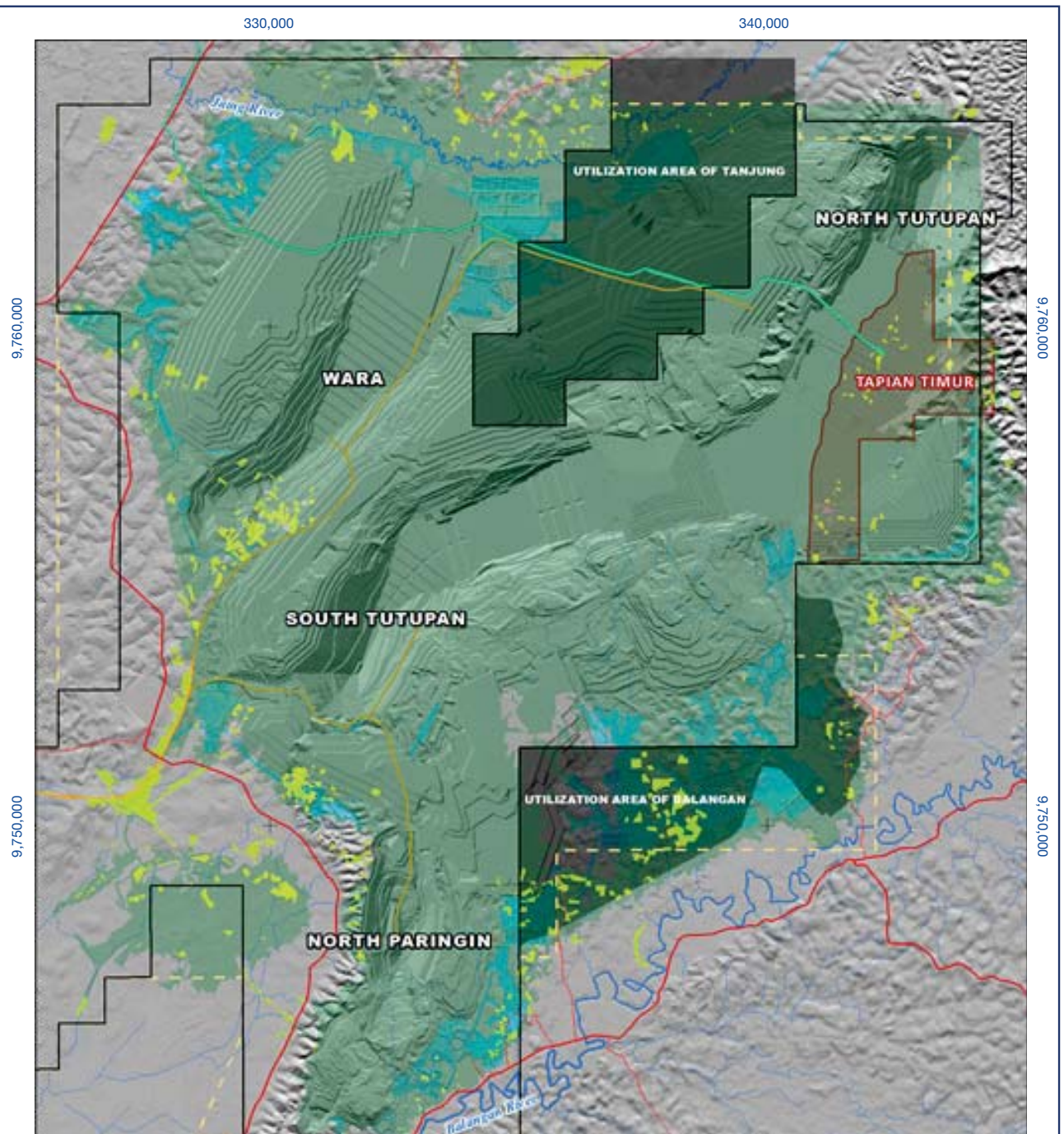
2.5 Current Operations

The Adaro mine is a contractor truck and excavator operation for both overburden removal and coal mining. In 2015 overburden removal reported was 261 Mbcm, ROM coal mining was 50.4 Mt. The prime strip ratio was 4.8:1 bcm/t ROM. Historical production statistics of the mining operation are shown in **Figure 2.4**.

Overburden and coal mining operations are undertaken currently in 4 pits; North Tutupan, South Tutupan, Paringin and Wara. Generally Adaro aims to allocate whole pit areas to separate mining contractors. This allows each contractor to manage their own operating area and simplifies the monthly claims process. Overburden mined from these pits is hauled to either expit or inpit dumps (Inpit dump space limited as of Q1 2016). Coal mined is hauled from the coal mining face to Pit ROM stockpiles, located on the surface at and around the pit edge. The ROM coal is rehandled from the Pit ROM stockpiles and hauled overland on dedicated haul roads to the Kelanis CHP and barge loading facility. Each mining contractor is responsible for the haulage of their ROM coal. This is covered by separate coal haulage contracts, in some cases the coal haulage has been sub-contracted.

The overburden comprises of fresh and weathered Tertiary rocks. The weathered material is generally able to be free dug by the hydraulic excavators. Fresh Tertiary waste requires drilling and blasting to facilitate excavator productivity. Drilling and blasting is undertaken by each of the mining contractors and costs are included in the waste mining cost matrix.

The Adaro coal is very low in ash and therefore does not require any beneficiation to achieve a saleable product. ROM coal is crushed, screened and blended (as required) at the Kelanis CHP.



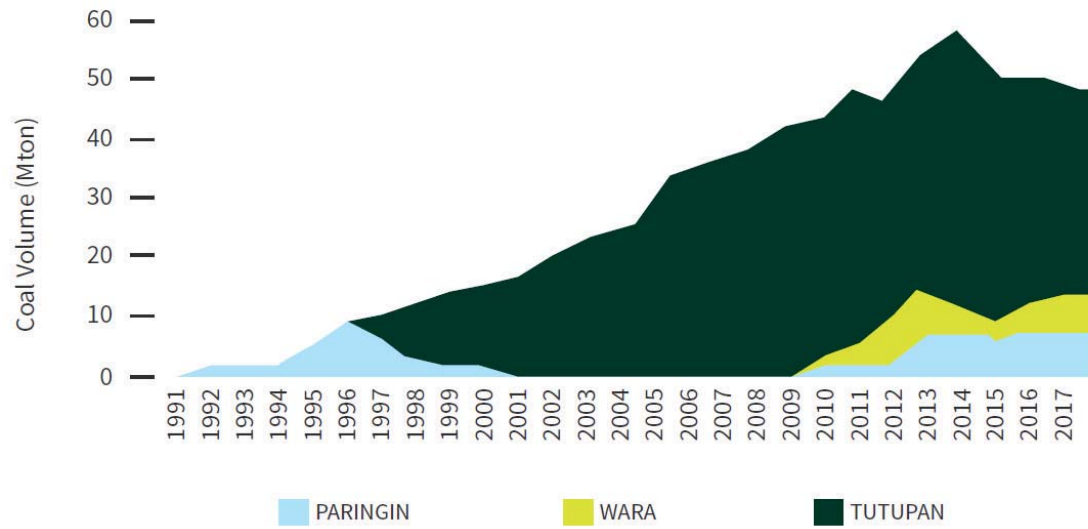
Source: PT Adaro Indonesia LOM Plan Report 2018

LEGEND	
● Town	 Adaro Indonesia CCoW
— Road	 Uncompensated
— River	 Compensated
	 Project Area

RPMGLOBAL

CLIENT		PROJECT	
 adaro MINING PT Adaro Indonesia		NAME INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA	
		DRAWING TENURA AND LAND HOLDING MAP PT ADARO INDONESIA	
FIGURE No. 2.3	PROJECT No. ADV-JA-04019	Date September 2019	

Figure 2.4 Production Statistics



3. Geology and Resources

Key Observations

- RPM is of the opinion that the standard applied by Adaro for geological modelling is reasonable in general, and can be used for Resources and Reserves estimation.
- A total of 5,860 holes were drilled and used for modelling, including 994 cored holes for coal quality. The majority of holes were geophysically logged and RPM completed a random cross check on the data against the model database. In general, no major variances were found, particularly for the main seams.
- RPM found that the majority of coal core recovery used in the quality database was greater than 90%.
- RPM is of the opinion that, based on the information provided, the geological database collection appears to be of a reasonable standard.
- RPM completed a check between original topography in the model against the drillholes collar elevation. The results showed a small deviation (< 3m) in the majority of the drill data. In RPM's opinion, the topography and drill collar data acquisition were conducted to a high standard, and therefore can be used for modelling and mine planning purposes.
- Correlation between the geological model and the drill hole data for seam floor elevation is good. Seam thickness correlation however, has less reliable correlation.
- Visual checks were made comparing the data and contour plots and sections. Isopach maps of nominated major seams show that in general, the model results are honouring the data reasonably well, particularly for the major seams.
- RPM is of the opinion that in general coal quality is reasonably consistent, however there are some changes and trends between blocks and seams.
- RPM completed basic coal quality correlation using simple regression for the main quality parameters. The regression analysis of Ash vs RD (from all seams and for all blocks) show a high degree of misalignment with normal trend, particularly in North Paringin. RPM noticed that some RD values indicated constant numbers for a range of Ash values. The Ash vs CV correlation also shows high variation. RPM is of the opinion that the anomaly possibly occurred due to predominantly low Ash content across the Resource area, while there is an increase of CV both laterally and vertically. In RPM's opinion, under normal conditions the correlation should follow a linear trend. RPM recommends that further work to be carried out to investigate this issue.
- The Coal Resource estimation parameters that were used by Adaro are, in most cases, acceptable. RPM's review indicates that the test for the reasonable prospect for eventual economic extraction of resources has not been fully completed. RPM believe that this is likely to have an impact on the reported Resources and recommend that future Coal Resource Estimates include the full application of assumptions to test the reasonable prospect for eventual economic extraction.

3.1 Geological Overview

The Project occurs in the Middle - Late Miocene Warukin Formation. The deposit is divided into 3 main areas, Tutupan, Wara and Paringin. These main areas were then divided into smaller blocks called North Tutupan, South Tutupan, North Paringin, South Paringin, Wara 1 and Wara 2. This further subdivision was to facilitate the geological modelling of each of the areas. For the purpose of this review only four blocks were selected by Adaro: North Tutupan, South Tutupan, North Paringin and Wara 1 as these are blocks containing Coal Reserves.

The geology of the deposit can be described as a series of shallow to steeply dipping anticline-syncline structures. It has a northwest-southeast trending asymmetrical anticline, which is steeply dipping in the western flank, and then rolls over and creates a relatively flatter dipping syncline to the east.

Based on the existing exploration data, several major faults were identified in the Project which also restricted the continuity of the coal seams in some areas. A more detailed discussion of the local geology of each area is described herein.

3.1.1 Tutupan

The Tutupan area stretches from south to north with an approximate total strike length of 20 km. This area was divided into 2 blocks; North and South Tutupan. RPM has been informed that the division of the blocks were due to changes in coal quality from north to south. The coal seams in both blocks in majority are correlated, however there is a trend of coal quality from north to south, with CV marginally increasing towards to the south. The North Tutupan Block is approximately 8.8 km in strike length, while the South Tutupan strike length is approximately 11 km.

Coal seams in the Tutupan area are mostly located in the eastern limb of a broad asymmetrical anticline plunging to northeast. The coal seams normally dip steeply in western limb with an average dip of ~80 degrees to the northwest, while in the eastern limb coal is dipping flatter to the southeast with a dip range approximately from 2 to 60 degrees. A total of four faults were identified in the geological models for the Tutupan area, with displacements of up to 80 m. The majority of the faults are located in the South Tutupan area, but the fault with the biggest displacement occurs in the North Tutupan Block.

A total of more than 40 seams and sub seams were identified in Tutupan, with Seam T300, T200, and T100 being the main seams with average vertical thickness up to 48.1 m. Details for average main seams vertical thicknesses are shown in **Table 3.1**. A typical cross section in Tutupan area is shown in **Figure 3.2** and **Figure 3.3**.

Table 3.1 Main Seams Nomenclature and Thicknesses – North and South Tutupan

North Tutupan				South Tutupan			
Seam	Sub Seam_1	Sub Seam_2	Avg.Vertical Thickness (m)	Seam	Sub Seam_1	Sub Seam_2	Avg.Vertical Thickness (m)
				I	I1		7.4
							9.5
					I2	I2U	8.8
							3.2
						I2L	5.6
G2			3.0	G2	G2U		4.8
							8.4
					G2L		10.5
G3	G3U		9.5	G3	G3U		5.3
			22.4				3.1
	G3L		5.0		G3L		5.3
				T300	T320	T322	6.9
							8.1
						T321	6.0
							22.8
					T310	T312	4.9
							9.8

North Tutupan				South Tutupan			
Seam	Sub Seam_1	Sub Seam_2	Avg.Vertical Thickness (m)	Seam	Sub Seam_1	Sub Seam_2	Avg.Vertical Thickness (m)
						T311	12.5
F			6.0	F			10.5
E			7.8	E			8.5
T200	T220		21.9	T200	T220		15.0
	T221		2.5		T221		9.0
			48.1				35.7
	T210		13.2		T210		20.4
C		C1U	5.9	C			2.9
	C1		9.0				
		C1L	5.4				
			14.3				
	C2		6.2				
T120	T120U		14.5	T100			19.4
			23.6		T120		
	T120L		4.7				
T121			2.2		T121		6.1
T110			8.3	T110			26.9

3.1.2 Wara

Wara is situated to the west of Tutupan area. The deposit is divided into 2 blocks; Wara 1 and Wara 2. The Wara 1 and Wara 2 blocks are separated by a major fault striking northeast-southwest, with Wara 2 is located in western part while Wara 1 is on the other side to the east. The coal in Wara 1 stretches approximately 12 km along strike.

The geology of Wara in general can be described as a simple deposit with coal dipping to southeast. In Wara 1, coal dips range from 5 to 40 degrees, with steep dips occurring near to the surface, and tends to flatten down dip. Two faults have been identified in Wara 1 which are located in southern part with displacement up to 50 m

A total of more than 30 seams and sub seams were identified in Wara 1, with Seam W100, W200, and W300 being the main seams and having average vertical thickness of up to 20.1 m. The coal seams in Wara 1 and Wara 2 were not well correlated due to different quality results and fault structure in between blocks. Detail of the main seams average thicknesses is shown in **Table 3.2**. A typical cross section in Wara 1 is shown in **Figure 3.4**.

Table 3.2 Main Seams Nomenclature and Thicknesses – Wara 1

Seam	Sub Seam_1	Sub Seam_2	Sub Seam_3	Avg.Vertical Thickness (m)
W300	W320	W322		3.4
				12.0
		W321	W321U	1.6
				4.5
			W321L	3.5
				20.1
	W310	W312		2.0
				5.8
		W311	W311U	1.5
				3.7
			W311L	2.7
W220	W222	W222U		2.3
				6.3
		W222L		3.6
				10.9
	W221	W221U	W21U1	3.4
				7.1
			W21U2	3.5
				8.3
		W221L	W21L1	4.3
				4.3
			W21L2	2.3
W210	W212	W212U		2.2
				6.9
		W212L		2.6
				16.8
	W211	W211U		13.7
				9.4
		W211L		2.8
W100	W120			11.4
				19.3
	W110			12.2

3.1.3 Paringin

The deposit of Paringin is located to the south of Tutupan area, which is divided into 2 blocks; North and South Paringin. The coal in North Paringin stretches approximately 5 km along strike. The North Paringin Block is separated from South Tutupan by a major fault. The North Paringin Block was disconnected from the South by a mined out area. The distance between blocks is approximately 5 km.

The coal seams in North Paringin were formed in asymmetrical anticline trending northeast-southwest, with flat to steep dips ranging from 5 to 65 degrees in the western limb, and flatter dips which range from 5 to 27 degrees in the eastern limb. Two faults have been identified in North Paringin which are located in north-western corner with displacement up to 160 m.

Total of more than 20 seams and sub seams were recognised in North Paringin, with Seam P800, P700, P600 and P500 being the major seams. The average vertical seam thickness is up to 25.6 m. Detail of the main seams average vertical thicknesses for North Paringin is shown in **Table 3.3**. Typical cross section for North Paringin is shown **Figure 3.5**.

Table 3.3 Main Seams Nomenclature and Thicknesses – North Paringin

Seam	Sub Seam_1	Sub Seam_2	Avg. Vertical Thickness (m)
P920	P922		1.9
			5.4
	P921		3.4
P911	P911U		1.5
			3.9
	P911L		2.5
P800	P820	P822	1.0
			3.6
		P821	10.2
			9.9
	P810		5.5
P812			4.2
P700	P720	P722	6.7
			8.0
		P721	4.3
			12.4
	P712	P712U	8.14
			3.6
		P712L	4.14
	P711	P711U	5.4
			11.2
		P711L	2.8
P600			10.0
P500	P520		9.2
			25.6
	P510		14.3

3.2 Exploration

The exploration activities commenced in 1982, and have been conducted in several periods, being carried out by several different contractors. Currently, Adaro is employing four drill machines for their exploration program, which is supplemented with a geophysical logging unit. A summary of the exploration in the Project area is shown in **Table 3.4**.

Table 3.4 Summary Exploration History – Adaro

Contractor	Year
ENADIMSA	1982-1986
Adaro	1986-1990
PT. Asminco	1992-1993
PT. Paiton Energy Corp.	1994
Adaro/Asminco	1996-1999
Adaro	2002-2004
Adaro	2007-2017

RPM has been informed by Adaro that previous exploration before year 2000 was completed to a lower standard. The average coal core recovery was only 80%, which may not be considered representative to support coal quality assaying. However, the recent drilling campaign, starting from year 2000 onwards were conducted to a higher standard, with average coal core recovery of a minimum of 90%. Re-drills were completed for drill holes with recovery factors less than the minimum, to achieve a suitable recovery limit. It is noted that majority of holes (>95%) were geophysically logged.

In 2017, Adaro completed a drilling campaign with a total of 26 cored holes and 210 open holes being drilled. The majority of the drilling was completed over North Tutupan and South Tutupan Blocks.

RPM is of the opinion that the standard applied by Adaro for geological modelling is reasonable in general, and can be used for Resources and Reserves estimation, including mine planning works. Drill hole locations for all areas are shown in **Figure 3.1**.

3.3 Geological Database and Modelling

RPM was provided with the geological models and a set of nominated basic geological data (geophysical logs, core photos, quality certificates and drill logs) for review. Using the provided information, RPM was able to make several observations and comments on key elements of the models and databases.

3.3.1 Geological Database

Geological databases were provided, and RPM made the following observations:

- A total of 5,860 holes were drilled and used for modelling, including 994 cored holes for coal quality. Drilling statistics based on the provided data are summarised in **Table 3.5**.
- The majority of holes were geophysically logged. RPM completed a random cross check on the geophysical log data against the model database. A total of 10 holes were cross checked for each area. In general, no major variances were found, particularly for main seams.
- RPM conducted a review on the quality database. A random cross check against the quality certificates and core recovery record, on limited data, was completed. RPM found that the majority of coal core recovery used in the quality database was greater than 90%.
- A weathering surface was made based on the drill hole information.

Table 3.5 Model Drillhole Database Statistics

Area	Non Quality Holes	Quality Holes
North Tutupan	1046	213
South Tutupan	1970	314
Wara 1	1008	228
North Paringin	842	239
Total	4866	994

RPM is of the opinion that, based on the information provided, the geological database collection seems to be of a reasonable standard.

3.3.2 Topography and Survey

The Resources Statement stated that detailed topographic surveys had been conducted over the study areas using LIDAR, and all drill hole collars were surveyed by ground equipment.

The LIDAR topography was started in 2006, and was continued in 2007 by PT. Surtech Prima. The third survey was acquired by PT. Mc Elhanney Indonesia in 2009. Ground survey for active mining areas was completed using terrestrial laser scanning and differential GPS survey.

RPM completed a check between original topography in the model against the drillholes data elevation. The results showed a small deviation (< 3m) in the majority of the drill data, aside from the recent drilling which took place in the current active areas.

It is noted that in general, the Adaro concession is located within UTM WGS 1984 zone 50S, however for mine planning purposes, Adaro has used a local coordinate system. There are two mine block coordinate systems; the Tutupan-Wara, and the Paringin system. The drill hole collars were also converted into the appropriate local coordinate system. The detail transformation parameters from WGS 1984 to local systems are shown in **Table 3.6**.

Table 3.6 Adaro Coordinate Transformation Parameters

WGS 1984 to Paringin Mine Coordinate System		WGS 1984 to Tutupan/Wara Coordinate System	
Horizontal Adjustment Parameters:		Horizontal Adjustment Parameters:	
Northing coordinate of rotation center	9,746,522.237 m	Northing coordinate of rotation center	9,757,090.680 m
Easting coordinate of rotation center	332,488.181 m	Easting coordinate of rotation center	334,759.446 m
Rotation about the center point	-23°03'34"	Rotation about the center point	-57°15'36"
Translation north:	-9,741,753.670 m	Translation north:	-9,748,020.012 m
Translation east:	-331,614.278 m	Translation east:	-330,718.744 m
Scale factor	1.000019501	Scale factor	1.00008025
Vertical Adjustment Parameters:		Vertical Adjustment Parameters:	
Northing coordinate of origin point	14,803.584 m	Northing coordinate of origin point	5,543.114 m
Easting coordinate of origin point	-6,599.314 m	Easting coordinate of origin point	-119.715 m
Vertical shift at origin:	-19.201 m	Vertical shift at origin:	-19.191 m
Slope north:	-89.034 ppm	Slope north:	-30.227 ppm
Slope east:	-111.716 ppm	Slope east:	11.395 ppm

*Source: PT. Adaro Jababara Indonesia, Estimate of PT. Adaro Indonesia Coal Resources as at December 31 2017, August 2018. Page 17.

In RPM's opinion, the topography and drill collar data acquisition were conducted to a high standard, and therefore can be used for modelling and mine planning purposes.

3.3.3 Geological Models

RPM received several geological model sets that were provided by Adaro. It is noted that all the geological models were built using DataMine MineScape software. The software is widely used in the coal mining industry and is sufficient for Coal Resource modelling and estimation.

The Adaro technical team provided a set of geological models to RPM which has formed the basis of this technical review. A summary of the geological data sets received by RPM are shown in **Table 3.7**.

Table 3.7 Final Geological Models Received

Block	Model Name
North Tutupan	Model_Nttp_18a
South Tutupan	Model_Sttp_18a
Wara 1	Model_Wara1_18a
North Paringin	Model_Paringin_2018ar

RPM completed a review of the models provided and found that the seam correlation was in general reasonable across the deposit, particularly for the main seams. Cross checks between seam models and geophysical logs for limited drill holes also indicated a good result, with the raw thickness data matching that which was imported into the models.

Further review was also conducted by RPM by using simple statistics, comparing vertical drill hole data against modelling results at the specific drill hole location for both seam thickness and floor. RPM has selected several major seams for this evaluation, which are shown in **Figure 3.1** to **Figure 3.16**.

Figure 3.1 Seam Floor Comparison – T200 Seam North Tutupan

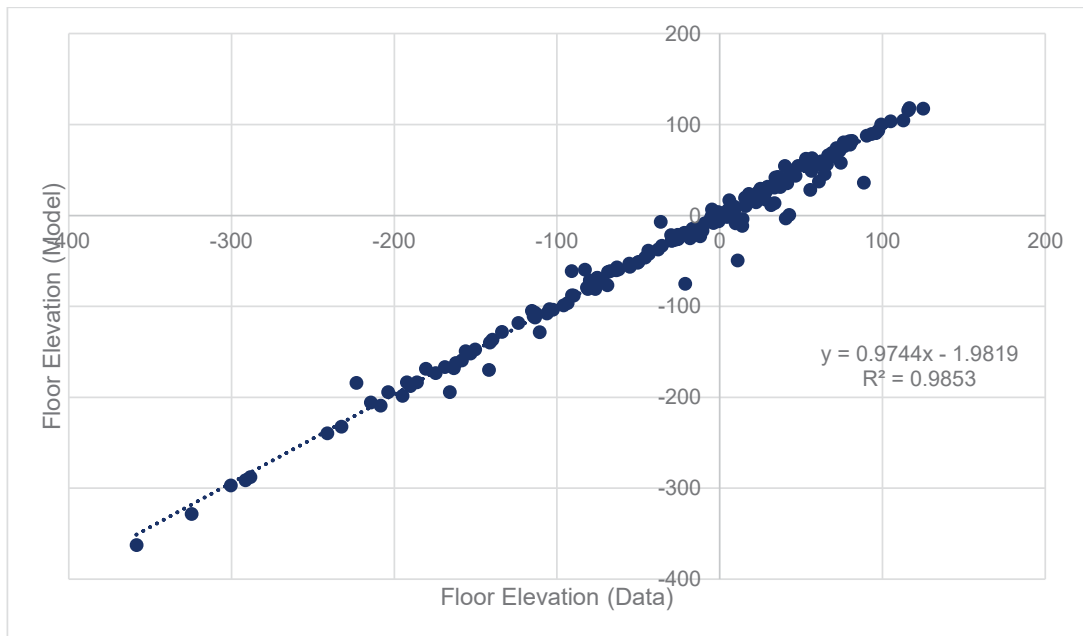


Figure 3.2 Seam Floor Comparison – T120 Seam North Tutupan

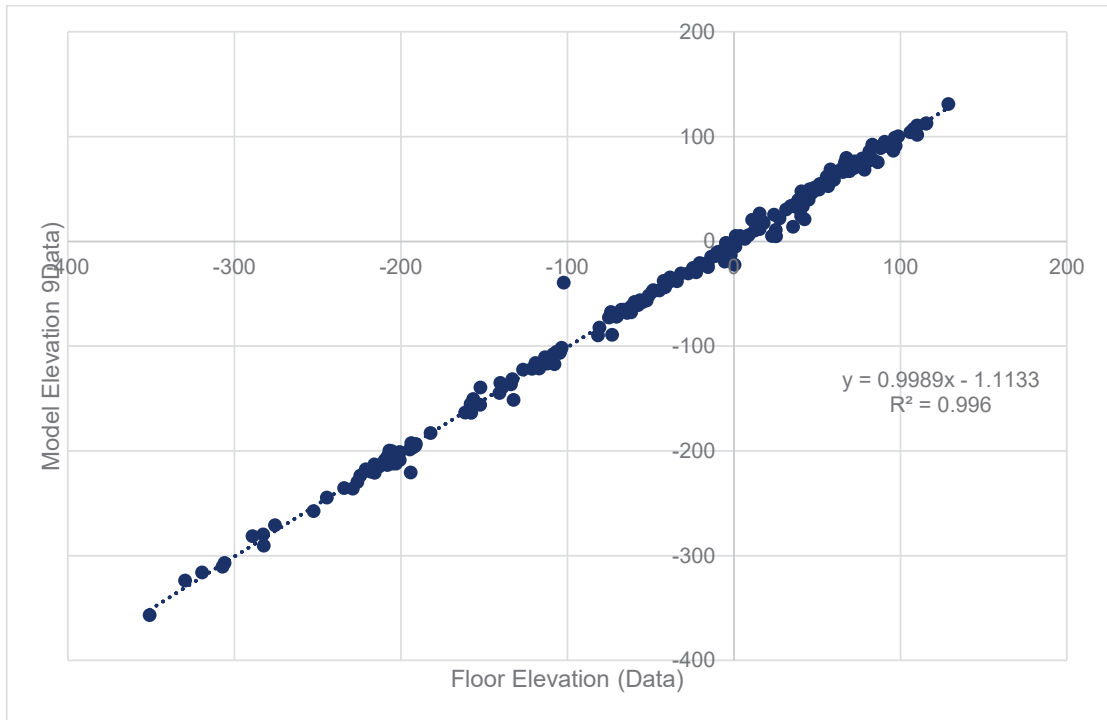


Figure 3.3 Seam Floor Comparison – T210 Seam South Tutupan

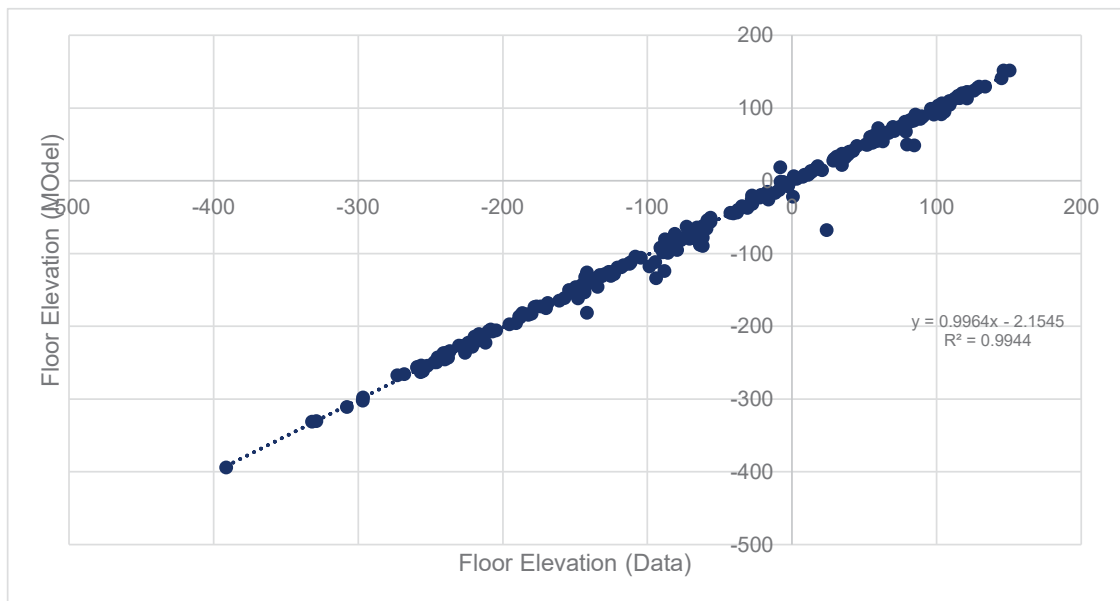


Figure 3.4 Seam Floor Comparison – T110 Seam South Tutupan

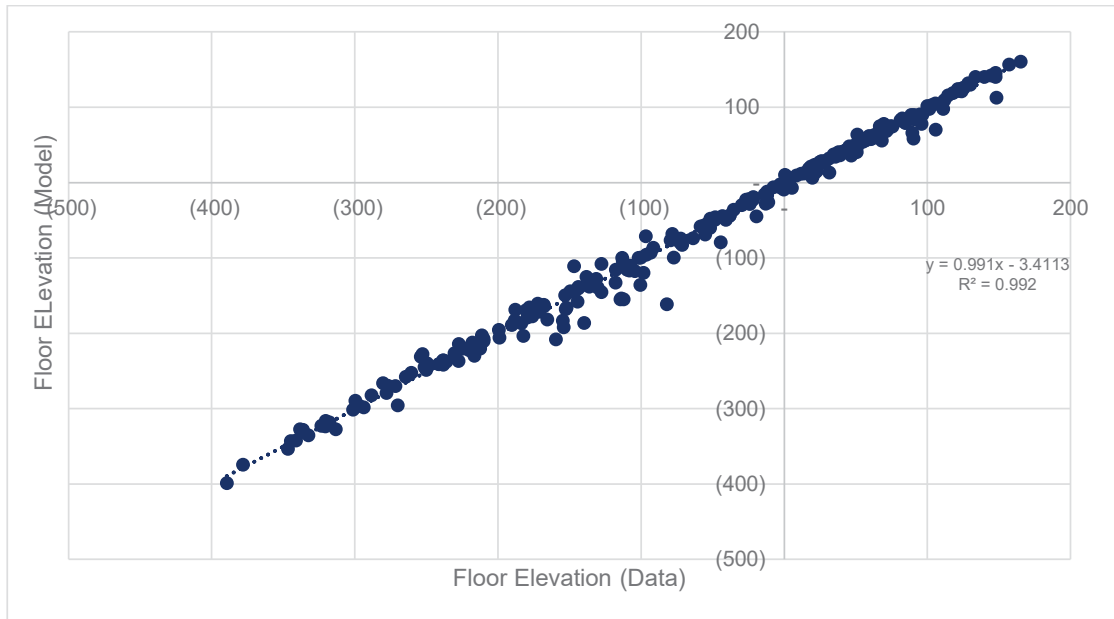


Figure 3.5 Seam Floor Comparison – W100 Seam Wara 1

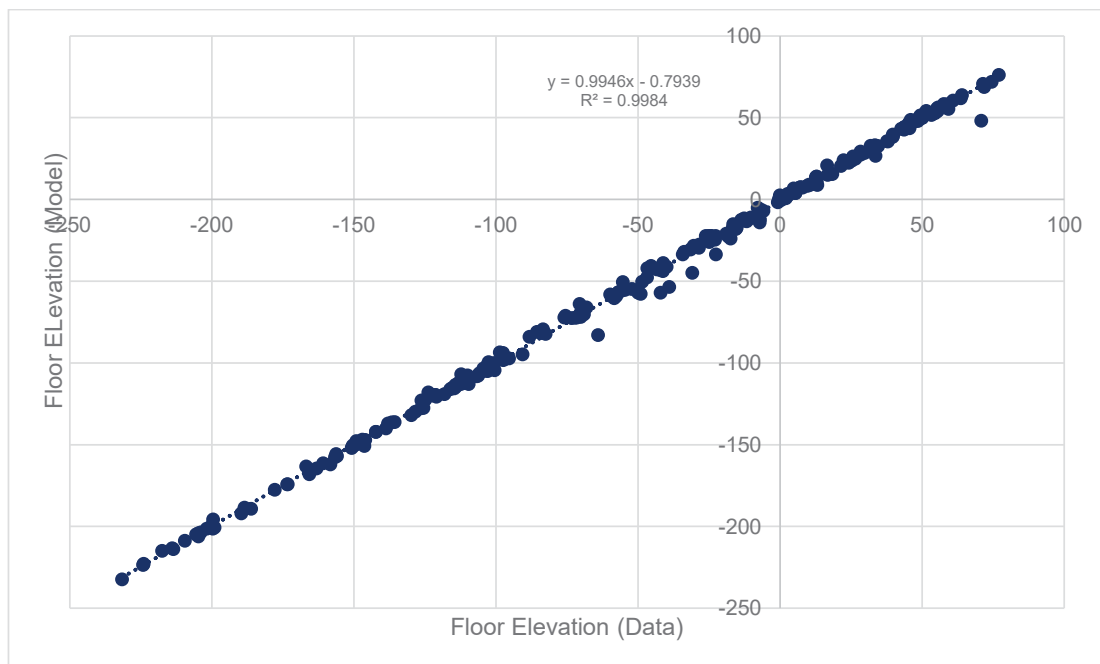


Figure 3.6 Seam Floor Comparison – W210 Seam Wara 1

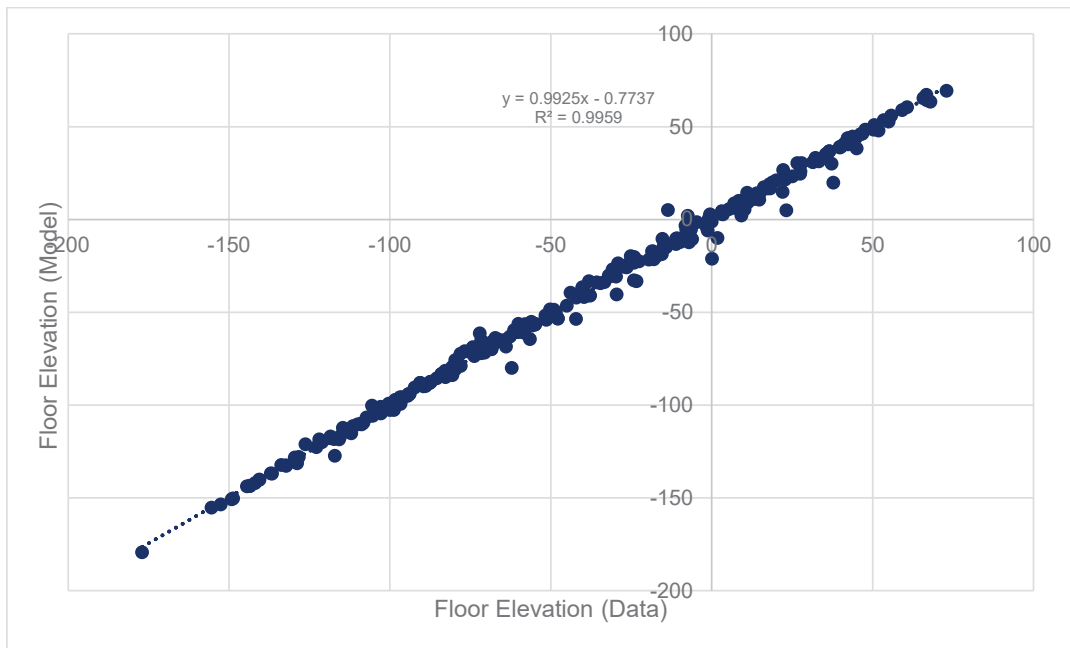


Figure 3.7 Seam Floor Comparison – P711 Seam North Paringin

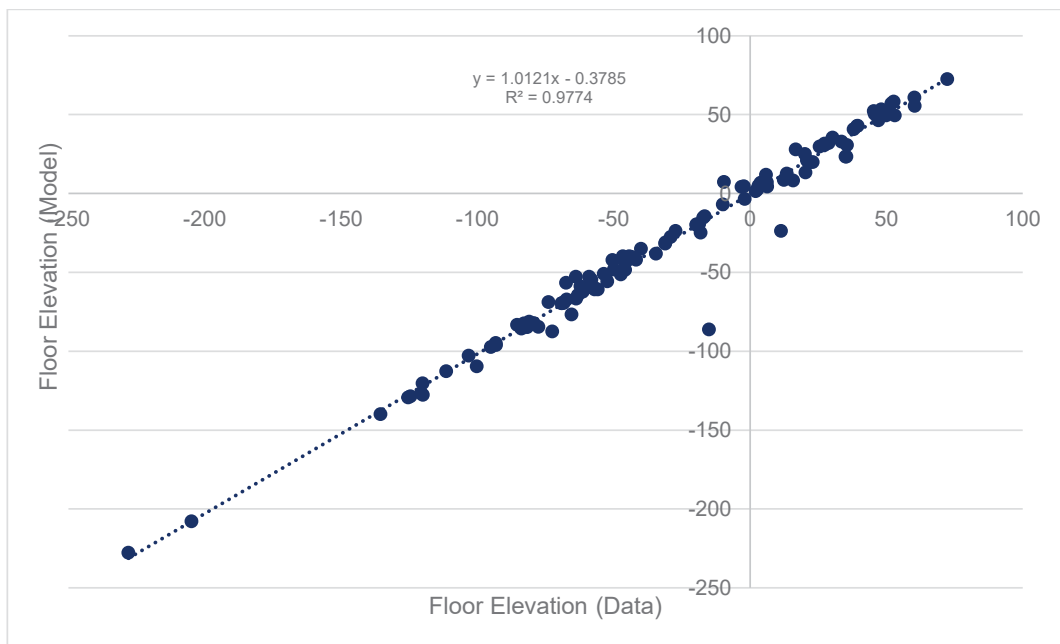


Figure 3.8 Seam Floor Comparison – P600 Seam North Paringin

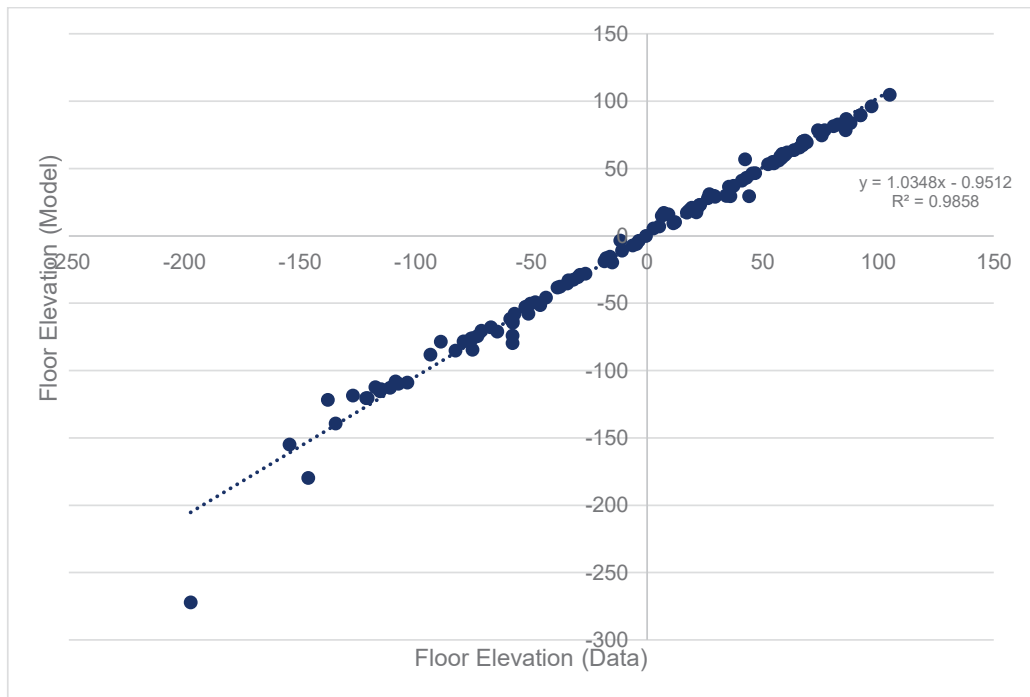


Figure 3.9 Seam Thickness Comparison – T200 Seam North Tutupan

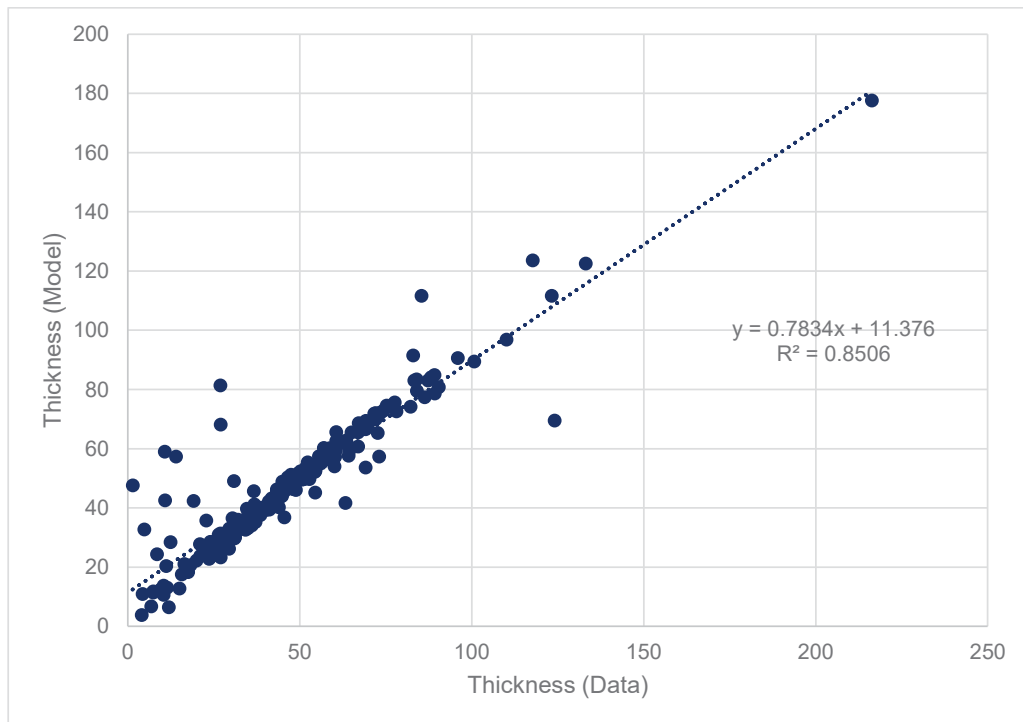


Figure 3.10 Seam Thickness Comparison – T120 Seam North Tutupan

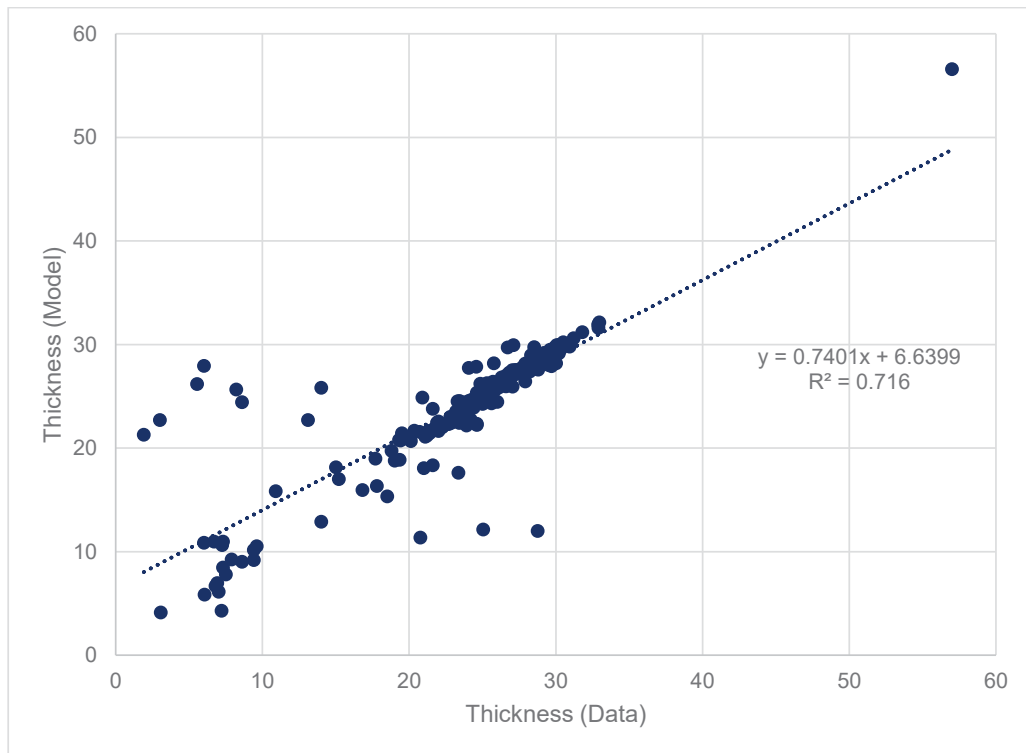


Figure 3.11 Seam Thickness Comparison – T210 Seam South Tutupan

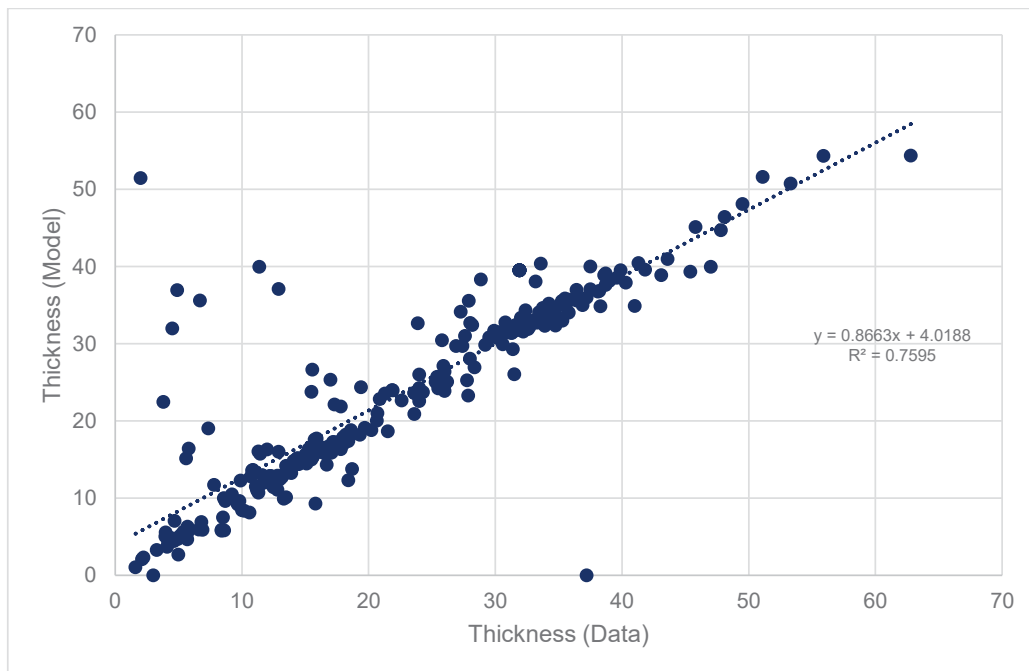


Figure 3.12 Seam Thickness Comparison – T110 Seam South Tutupan

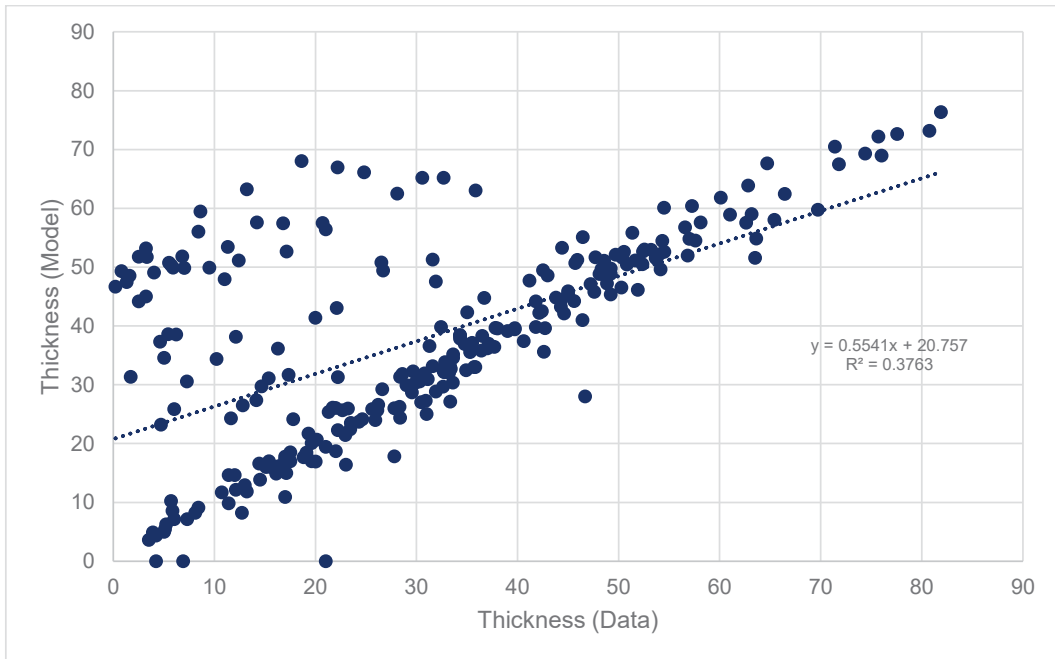


Figure 3.13 Seam Thickness Comparison – W100 Seam Wara 1

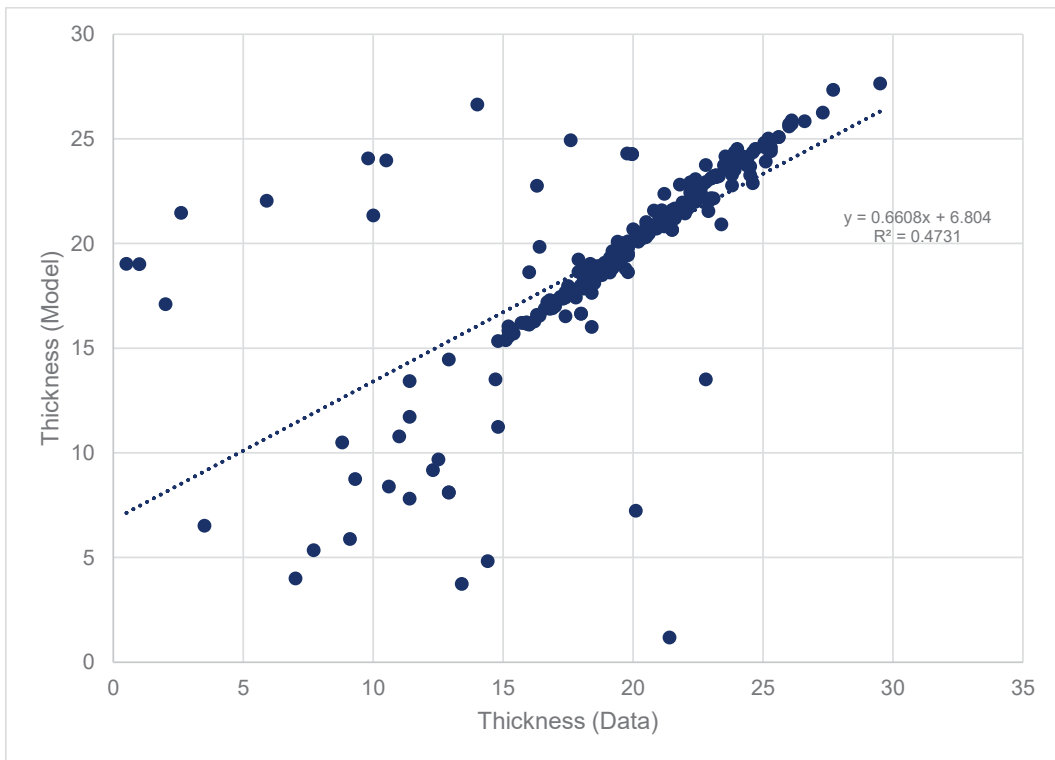


Figure 3.14 Seam Thickness Comparison – W210 Seam Wara 1

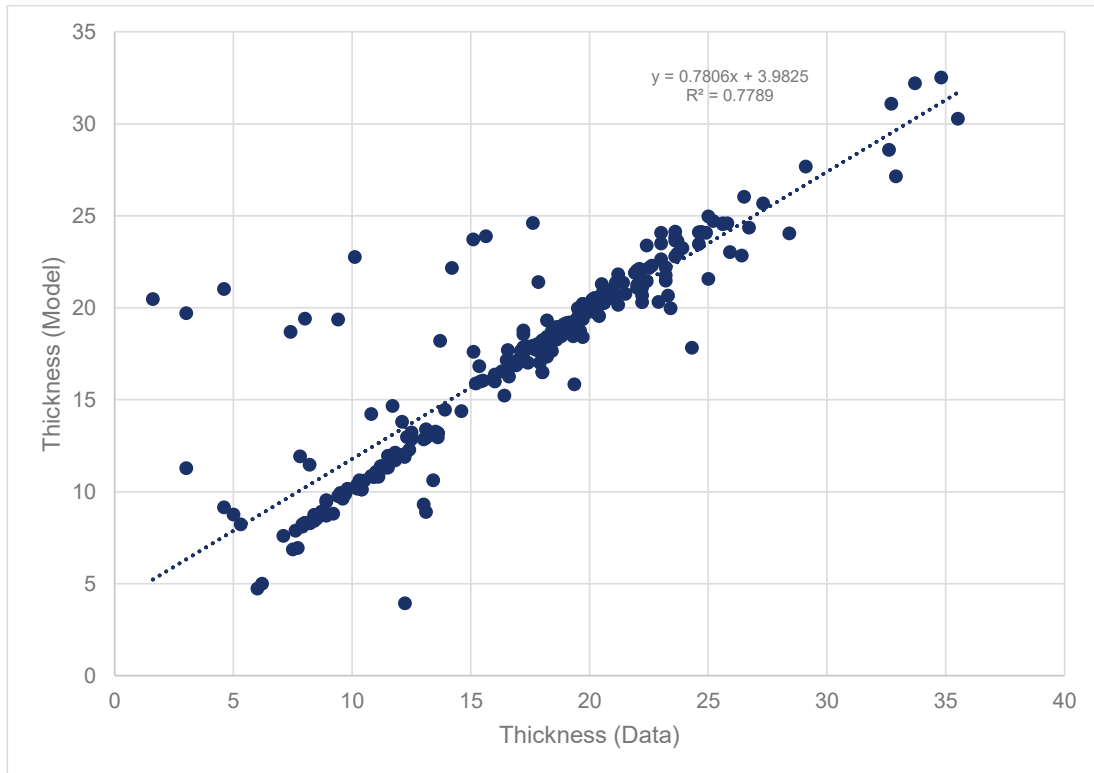


Figure 3.15 Seam Thickness Comparison – P711 Seam North Paringin

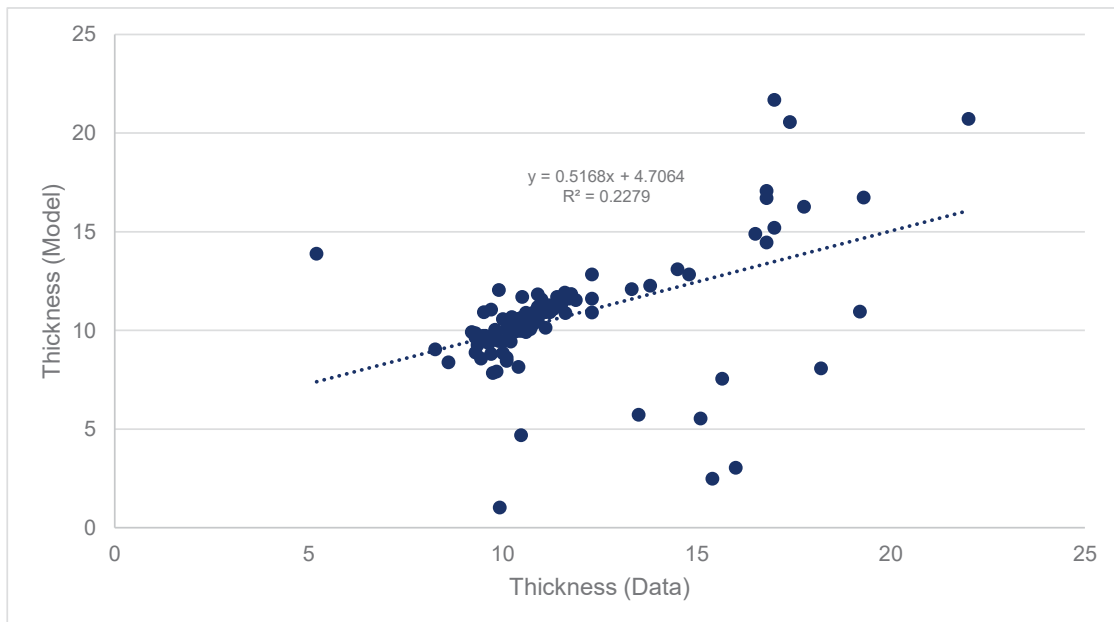
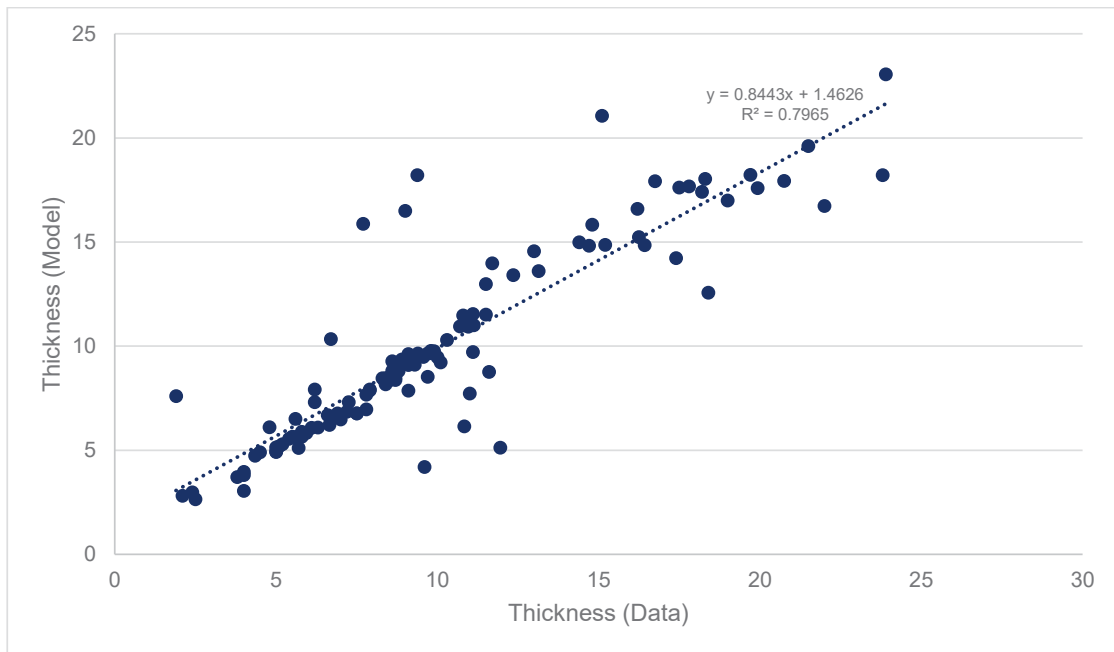


Figure 3.16 Seam Thickness Comparison – P600 Seam North Paringin



Correlation between the geological model and the drill hole data for seam floor elevation is good. Seam thickness correlation however, has less reliable correlation, which mainly caused by:

- Incomplete seam intersection. This due to drilling that stopped before reach the coal seam floor,
- Seam model thickness truncation at top of upper coal seam, which this usually occurred in the active mine area and intended to acquire information of lower seams , and
- Significant deviation of thickness between adjacent holes within short distance (includes immediate pinched out or washed out), which results in seam thickness smoothing (not honouring drill hole data) by software.

RPM notices that a number of drill holes which have significant variance were located within the mined out area, and therefore will have no impact to Resource evaluation work. In addition to the basic statistic validation, RPM also performed following checks:

- Visual checks by comparing the data and contour plots and sections. Isopach maps of nominated major seams are shown in **Figure 3.30** to **Figure 3.33**. The contours and sections show that in general, the model results are honouring the data reasonably well, particularly for major seams; and
- Validation of the model results in relation with local geological trends. The model results show good alignment with the local geological trend.

A reconciliation completed by Adaro indicates results showing good correlation of quantity between the model and actual, as shown in **Table 3.8**. This supports the geological interpretation that was carried out by Adaro.

Table 3.8 Coal Quantity Reconciliation 2017 – Adaro

Block	Coal Quantity (Kt)		Diff (%)
	Model	Actual	
All Tutupan	37,969	36,609	96%
Wara	5,393	5,008	93%
Paringin	6,261	6,023	96%

3.3.4 Coal Density

The Resources and Reserves Statement stated that the modelled air dried RD, (from analyses of coal cores), was converted to in situ RD by applying the Preston-Sanders equation, 1993.

The Preston-Sanders equation is as follows:

$$RD_{is} = RD_{ad} \times (100 - IM_{ad}) / (100 + RD_{ad} \times (M_{is} - IM_{ad}) - M_{is})$$

where is = in situ

ad = air dried

RD = relative density

IM = inherent moisture

Mis = in situ moisture.

The Resources Statement used TM as a basis for Mis instead of EQM. This approach is considered reasonable, and will not make any material difference, due to appropriate sampling approach.

3.4 Coal Quality

The coal is lignite to sub bituminous ranked according to the ASTM standard. The coal quality indicated low-ash, low-sulphur, and medium to high moisture content with medium to low calorific value (approximately of 5,600 to 3,600 kcal/kg GAR). RPM has made a review of the quality based on the data provided, which also indicated similar results. RPM is of the opinion that in general coal quality is reasonably consistent, however there is some changes and trends between blocks and seams.

In the Tutupan area, there is a minor trend, with CV showing a higher trend towards the South Tutupan. In North Paringin, coal seams with better quality are trending to north. In Wara 1, higher energy is noticed towards north. Coal quality trend also occurs vertically with lower seams are having better energy than upper seams, which also aligns with the same pattern with TM values decreasing with depth. Quality maps of nominated major seams are shown in **Figure 3.34** to **Figure 3.37**.

All quality samples were sent to PT.Sucofindo and PT. Geoservices at Kelanis Port, which are nationally and internationally accredited laboratories. No QA/QC of the coal sample analysis was performed by Adaro due to all samples being sent to independent laboratories.

RPM noted that the non-coal partings with thickness less than 0.3 m thick were sampled, analysed and composited as coal in the modelling process. This will not cause a significant impact on the overall quality of the Coal Resources due to total thickness of the main seams in general, being greater than 10 m.

A simple check on quality database has been performed by RPM by checking Total Proximate values and comparing TM against IM values. A very small number of samples show issues, but it will not result in a material impact due to the insignificant proportion compared to the total number of analysed samples.

RPM also completed basic coal quality correlation using simple regression for main quality parameters. The regression analysis of Ash vs RD from all seams for all blocks show a high degree of misalignment with normal trend, particularly in North Paringin. RPM noticed that some RD values indicated constant numbers for a range of Ash values. The Ash vs CV correlation also shows high variation, which RPM is of the opinion that the anomaly possibly occurred due to predominantly low Ash content across the Resource area, while there is an increase of CV both laterally and vertically. In RPM's opinion, under normal conditions the correlation should follow a linear trend. RPM recommends that further work to be carried out to investigate this issue. However, RPM also acknowledged that a reconciliation study by Adaro, as shown in **Table 3.9**, suggested a reasonable correlation of quality between actual and forecast. The detail regressions for each area is shown in **Figure 3.17** to **Figure 3.24**.

Table 3.9 Coal Quality Reconciliation 2017 – Adaro

Block	Coal Quality - Model			
	TM % (ar)	Ash % (ar)	TS % (ar)	CV Kcal/Kg (ar)
All Tutupan	29.3	2.9	0.10	4,867
Wara	39.7	2.8	0.16	3,923
Paringin	29.7	3.0	0.21	4,984
Block	Coal Quality - Actual Production			
	TM % (ar)	Ash % (ar)	TS % (ar)	CV Kcal/Kg (ar)
All Tutupan	28.2	1.9	0.10	4,844
Wara	40.9	2.5	0.18	3,863
Paringin	28.0	3.0	0.19	4,897
Diff	TM % (ar)	Ash % (ar)	TS % (ar)	CV Kcal/Kg (ar)
All Tutupan	-1.1	-1	0	-23
Wara	1.2	-0.3	0.02	-60
Paringin	-1.7	0	-0.02	-87

The majority of coal samples were analysed using ISO methods with some in AS standard, as listed in **Table 3.10**. It is noted that some samples were also analysed for ash fusion temperature, ("AFT"), HGI, Ultimate, Ash and Trace Element. Seam by seam average coal quality results for each block are shown in **Table 3.11** to **Table 3.14**.

Table 3.10 Quality Analysis Standards

Analysis	Code
Total Moisture	ISO
Proximate Analysis	ISO
Total Sulphur	ISO
Calorific Value	ISO
Relative Density	AS

Table 3.11 Coal Quality by Seam – North Tutupan

Seam	No. of Data Point	TM	IM	Ash	VM	TS	CV		Rd
		%	%	%	%	%	Kcal/Kg		
		ar	adb	adb	adb	adb	adb	arb	adb
G2	4	34.0	24.9	6.3	35.4	0.44	4,745	4,170	1.37
G3U	1	31.6	22.0	5.6	37.9	0.59	4,930	4,320	1.33
G3	4	33.6	22.2	2.3	39.2	0.14	5,215	4,450	1.31
G3L	2	32.7	25.2	7.1	35.4	0.2	4,690	4,220	1.37
F	10	31.0	22.4	3.9	38.3	0.13	5,065	4,505	1.33
E	18	29.6	22.4	3.6	38.3	0.11	5,090	4,620	1.33
D	6	30.2	22.7	3.3	37.9	0.12	4,945	4,465	1.34
T220	17	27.6	18.8	3.1	40.2	0.09	5,295	4,725	1.32
T200	37	27.9	20.5	1.8	40.3	0.09	5,290	4,800	1.32
T210	16	26.7	19.1	3.1	40.4	0.1	5,330	4,830	1.31
C1U	3	26.8	16.9	2.7	41.4	0.12	5,550	4,890	1.33
C1	12	27.5	20.1	3.1	40.0	0.09	5,260	4,775	1.33
C1L	4	27.4	18.6	6.0	39.1	0.15	5,205	4,645	1.36
C	23	27.6	20.1	3.6	39.3	0.11	5,200	4,705	1.34
C2	27	26.5	19.0	5.9	38.3	0.11	5,135	4,655	1.37
C3	40	26.6	20.0	3.7	39.6	0.14	5,275	4,840	1.33
C4	2	22.4	18.3	5.1	39.7	0.11	5,495	5,225	1.33
T120U	3	31.8	21.1	3.1	39.5	0.08	5,155	4,455	1.32
T120	54	26.4	18.8	1.7	41.1	0.1	5,505	4,990	1.32
T120L	4	31.3	24.2	3.1	37.9	0.11	4,975	4,510	1.30
T121	2	23.2	19.0	6.0	38.1	0.16	5,250	4,975	1.35
T110	32	26.5	19.4	2.8	40.7	0.1	5,460	4,980	1.32
T111U	2	29.9	21.0	3.1	40.3	0.08	5,275	4,680	1.35
T111	9	23.5	16.8	4.8	41.3	0.12	5,565	5,120	1.35
T111L	2	27.6	19.1	3.0	41.8	0.08	5,435	4,865	1.35
T112U	5	25.8	20.3	6.2	39.2	0.13	5,120	4,770	1.34
T112	3	21.6	12.7	7.3	42.3	0.27	5,840	5,250	1.36
T112L	4	26.9	22.0	7.5	35.5	0.12	4,835	4,530	1.38
T113U	3	25.6	15.4	2.9	41.5	0.12	5,775	5,090	1.33
T113	2	25.8	18.7	4.2	38.0	0.15	5,400	4,925	1.35
T113L	4	23.4	14.5	3.0	42.9	0.16	5,930	5,320	1.33
T115U	2	22.0	15.5	4.3	41.9	0.16	5,755	5,310	1.34
T115L	2	24.9	17.0	3.6	40.3	0.17	5,710	5,165	1.33

Note:

The seam by seam average is only based on simple average as reported in composited quality table.

Table 3.12 Coal Quality by Seam – South Tutupan

Seam	No. of Data Point	TM	IM	Ash	VM	TS	CV		Rd
		% ar	% adb	% adb	% adb	% adb	Kcal/Kg		adb
							adb	arb	
I1	9	38.8	29.5	3.0	36.4	0.32	4,565	3,965	1.32
I2U	3	38.2	31.4	2.2	35.5	0.23	4,540	4,095	1.29
I2	8	38.6	29.0	5.0	35.0	0.32	4,480	3,880	1.38
I2L	4	38.3	31.3	2.8	34.1	0.11	4,475	4,020	1.24
HI	3	34.7	27.9	7.3	34.4	0.53	4,470	4,060	1.36
HS	1	36.9	28.9	6.0	34.2	0.84	4,410	3,915	1.36
H1	3	38.4	27.8	2.9	35.7	0.26	4,760	4,070	1.34
H2	4	35.0	26.4	4.5	35.9	0.24	4,760	4,210	1.37
H3	6	32.4	23.3	4.1	36.4	0.25	5,090	4,490	1.31
G2	11	32.8	25.1	3.2	36.5	0.26	4,985	4,480	1.31
GSU	5	33.1	23.7	4.8	37.1	0.65	4,995	4,390	1.34
GS	3	30.3	24.8	3.7	37.6	0.39	5,050	4,685	1.30
GSL	3	32.0	26.1	4.7	35.6	0.34	4,875	4,500	1.31
G3U	6	32.0	24.8	3.9	35.8	0.31	5,020	4,545	1.31
G3L	1	31.6	19.8	3.5	39.2	0.09	5,265	4,490	1.34
T320	4	30.6	20.8	5.3	38.7	0.13	5,185	4,545	1.32
T300	3	32.0	21.0	1.7	40.3	0.1	5,445	4,690	1.30
T310	12	29.5	20.8	3.1	40.3	0.13	5,405	4,820	1.31
T301	5	29.3	21.9	3.4	40.0	0.13	5,340	4,835	1.30
F	17	30.1	20.9	2.5	38.5	0.11	5,350	4,735	1.30
E1	9	29.4	20.9	6.9	37.6	0.12	5,030	4,490	1.36
E	16	26.9	19.2	3.4	39.9	0.11	5,490	4,970	1.33
T220	15	26.8	19.5	2.2	38.8	0.1	5,500	5,005	1.31
T221	7	26.7	19.0	2.6	39.9	0.11	5,555	5,030	1.32
T200	6	25.9	17.3	1.5	40.8	0.1	5,750	5,150	1.32
T210	18	24.9	17.3	1.7	40.5	0.1	5,715	5,195	1.32
T211	3	26.7	18.7	4.6	39.4	0.16	5,430	4,910	1.34
C	12	23.3	16.8	4.9	40.7	0.17	5,575	5,140	1.36
T120	25	24.5	17.4	1.7	41.2	0.12	5,785	5,290	1.31
T121	10	23.5	16.0	2.9	41.1	0.12	5,740	5,230	1.33
T100	5	24.6	15.5	1.0	42.8	0.12	5,920	5,280	1.30
T110	21	23.6	15.4	1.6	42.5	0.1	5,985	5,415	1.31
T111	8	22.2	14.2	3.3	42.4	0.13	5,985	5,435	1.31
T112	4	25.3	14.3	4.8	44.0	0.19	5,935	5,180	1.32
T113	9	19.2	12.7	6.3	42.1	0.15	5,970	5,535	1.34
T115	15	20.9	13.5	5.3	41.3	0.19	6,010	5,510	1.35
T116	6	21.5	14.7	2.2	42.0	0.15	6,085	5,595	1.32
T117	5	20.4	10.9	3.7	42.8	0.22	6,300	5,635	1.35

Note:

The seam by seam average is only based on simple average as reported in composited quality table.

Table 3.13 Coal Quality by Seam – Wara 1

Seam	No. of Data Point	TM	IM	Ash	VM	TS	CV		Rd
		%	%	%	%	%	Kcal/Kg		
		ar	adb	adb	adb	adb	adb	arb	adb
WD	11	41.8	27.3	4.9	36.8	0.38	4,625	3,700	1.32
W322	26	40.9	24.2	4.2	37.5	0.52	4,860	3,795	1.34
W320	33	40.8	26.5	2.6	36.8	0.20	4,805	3,870	1.32
W321	30	41.1	24.9	5.5	36.6	0.30	4,690	3,675	1.34
W312	16	40.2	22.9	8.6	35.8	0.60	4,590	3,625	1.38
W311U	3	44.2	20.7	5.1	38.5	0.48	4,955	3,795	1.36
W300	23	40.7	26.7	2.5	36.9	0.25	4,780	3,870	1.31
W310	36	40.7	26.1	4.6	36.5	0.26	4,655	3,745	1.33
W311	20	39.8	24.6	6.1	36.0	0.23	4,725	3,775	1.35
W311L	3	42.1	21.5	4.0	38.5	0.19	5,015	3,945	1.36
WC2	3	37.8	23.2	10.1	34.6	1.18	4,510	3,650	1.40
WC	13	38.8	27.7	8.2	33.9	0.73	4,340	3,665	1.38
WC1	3	36.0	20.4	13.1	34.7	0.41	4,480	3,595	1.42
W222U	47	39.4	23.5	6.7	36.8	0.46	4,740	3,755	1.36
W222	39	39.3	24.3	4.6	37.4	0.35	4,840	3,875	1.32
W222L	46	39.6	24.6	5.0	36.8	0.37	4,800	3,850	1.34
W21U1	3	38.5	25.6	4.4	37.0	0.64	4,820	3,985	1.31
W221U	34	39.1	24.3	4.8	37.3	0.40	4,865	3,910	1.33
W21U2	4	38.4	25.5	9.8	34.5	0.50	4,405	3,620	1.36
W21L1	4	40.5	30.1	4.1	35.2	0.23	4,515	3,845	1.30
W220	4	39.7	25.4	2.3	38.0	0.16	4,905	3,965	1.26
W221	63	39.5	24.7	3.8	37.5	0.27	4,880	3,940	1.32
W221L	33	38.4	24.1	4.9	37.4	0.33	4,850	3,935	1.34
W21L2	3	41.7	28.5	4.9	34.4	0.21	4,530	3,695	1.32
W212U	9	36.7	22.2	7.0	38.3	1.34	4,960	4,040	1.36
W212	10	36.3	22.4	6.7	38.0	1.02	4,915	4,040	1.36
W212L	5	38.4	24.1	6.8	37.4	1.13	4,710	3,820	1.32
W211U	4	36.6	20.6	3.7	40.2	0.40	5,200	4,150	1.34
W210	92	39.2	24.5	2.7	38.7	0.22	5,030	4,060	1.30
W211	12	37.9	22.4	3.5	39.4	0.23	5,130	4,110	1.33
W211L	4	36.0	18.7	12.0	37.1	0.20	4,705	3,695	1.40
WB	5	38.6	27.2	4.1	36.1	0.14	4,800	4,065	1.31
W120	21	37.3	25.0	2.6	37.9	0.12	5,130	4,205	1.30
W100	73	37.9	22.0	2.6	39.6	0.11	5,190	4,140	1.32
W110	20	36.7	23.6	2.0	39.4	0.11	5,195	4,310	1.30
W111	33	37.8	21.7	6.6	37.5	0.24	4,965	3,945	1.35
W112	12	37.4	24.3	5.4	37.1	0.22	4,885	4,045	1.33
W113	7	37.7	21.1	4.6	38.7	0.20	5,185	4,095	1.32
W114	4	34.4	21.8	5.1	38.1	0.15	5,065	4,245	1.35

Note: The seam by seam average is only based on simple average as reported in composited quality table.

Table 3.14 Coal Quality by Seam – North Paringin

Seam	No. of Data Point	TM	IM	Ash	VM	TS	CV		Rd
		% ar	% adb	% adb	% adb	% adb	Kcal/Kg		
							adb	arb	adb
P1010	1	38.3	27.9	1.2	36.6	0.38	4,880	4,175	1.28
P1002	1	35.4	24.4	4.2	36.0	0.55	4,985	4,260	1.32
P1003	1	36.2	24.6	3.0	36.7	0.56	5,065	4,285	1.31
P1004	1	35.7	23.2	3.1	35.7	0.14	5,135	4,300	1.32
P922	8	36.7	23.7	3.7	36.5	0.19	4,955	4,115	1.34
P920	2	33.6	20.5	3.6	37.3	0.23	5,245	4,385	1.34
P921	9	35.4	22.5	3.2	36.6	0.22	5,080	4,240	1.34
P910	15	34.9	23.6	3.8	36.0	0.36	4,990	4,260	1.33
P911U	3	31.6	26.5	3.3	34.5	0.44	4,905	4,565	1.30
P911	12	33.4	23.6	3.0	36.2	0.2	5,075	4,425	1.33
P911L	3	31.1	23.0	2.7	37.9	0.15	5,290	4,730	1.30
P912U	3	32.5	25.8	3.7	35.2	0.64	4,970	4,520	1.31
P912	21	31.7	22.2	3.5	37.6	0.27	5,195	4,565	1.32
P912L	2	30.4	24.4	2.6	36.6	0.11	5,170	4,760	1.32
P913U	3	32.3	21.1	4.7	36.0	0.54	5,185	4,450	1.36
P913	11	30.3	23.2	3.9	36.0	0.44	5,105	4,635	1.32
P913L	3	32.3	20.0	3.4	37.6	0.24	5,395	4,565	1.34
P914	9	31.4	24.0	3.5	35.7	0.25	5,025	4,535	1.33
P820	8	29.9	21.6	2.8	37.1	0.24	5,290	4,730	1.32
P800	34	30.0	22.0	2.3	37.7	0.2	5,300	4,750	1.32
P810	10	29.3	21.6	3.1	36.7	0.24	5,260	4,745	1.32
P811	13	29.4	20.7	4.3	36.9	1.12	5,260	4,685	1.33
P812	36	29.5	21.6	2.9	37.3	0.41	5,350	4,815	1.32
P813U	2	29.4	22.7	4.0	36.7	0.25	5,120	4,680	1.32
P813	34	29.9	21.8	3.1	37.0	0.26	5,320	4,770	1.32
P813L	3	29.2	22.2	3.5	36.2	0.21	5,245	4,780	1.32
P814	12	27.8	20.3	3.3	37.7	0.37	5,455	4,940	1.33
P722	19	27.0	18.5	2.4	39.3	0.22	5,610	5,025	1.31
P720	18	27.6	19.0	2.4	38.6	0.14	5,530	4,940	1.32
P721	17	26.6	18.4	3.3	38.7	0.16	5,520	4,970	1.33
PA	2	27.2	17.8	3.1	38.9	0.19	5,550	4,920	1.32
P712U	24	26.6	18.3	2.6	39.0	0.2	5,570	5,005	1.32
P712	17	27.2	18.7	3.0	39.1	0.19	5,600	5,015	1.32
P712L	22	26.1	18.2	2.6	39.2	0.16	5,615	5,070	1.32
P711U	23	26.3	18.0	2.2	40.4	0.22	5,720	5,140	1.31
P711	28	24.9	17.6	2.0	41.2	0.18	5,815	5,300	1.30
P711L	22	26.2	17.5	3.5	39.8	0.15	5,645	5,045	1.32
P600	19	24.4	18.4	1.8	39.2	0.11	5,705	5,280	1.30
P520	19	23.5	18.1	1.9	38.4	0.11	5,790	5,410	1.31
P500	35	23.1	17.5	1.1	39.1	0.11	5,835	5,440	1.34

Seam	No. of Data Point	TM	IM	Ash	VM	TS	CV		Rd
		% ar	% adb	% adb	% adb	% adb	Kcal/Kg adb	Kcal/Kg arb	
P510	14	22.6	17.9	1.9	38.0	0.11	5,640	5,325	1.31
P511	2	26.0	17.9	2.8	37.8	0.1	5,760	5,190	1.28

Note:

The seam by seam average is only based on simple average as reported in composited quality table.

Figure 3.17 Regression Analysis of Ash vs RD – All Seams Uncomposited – North Tutupan

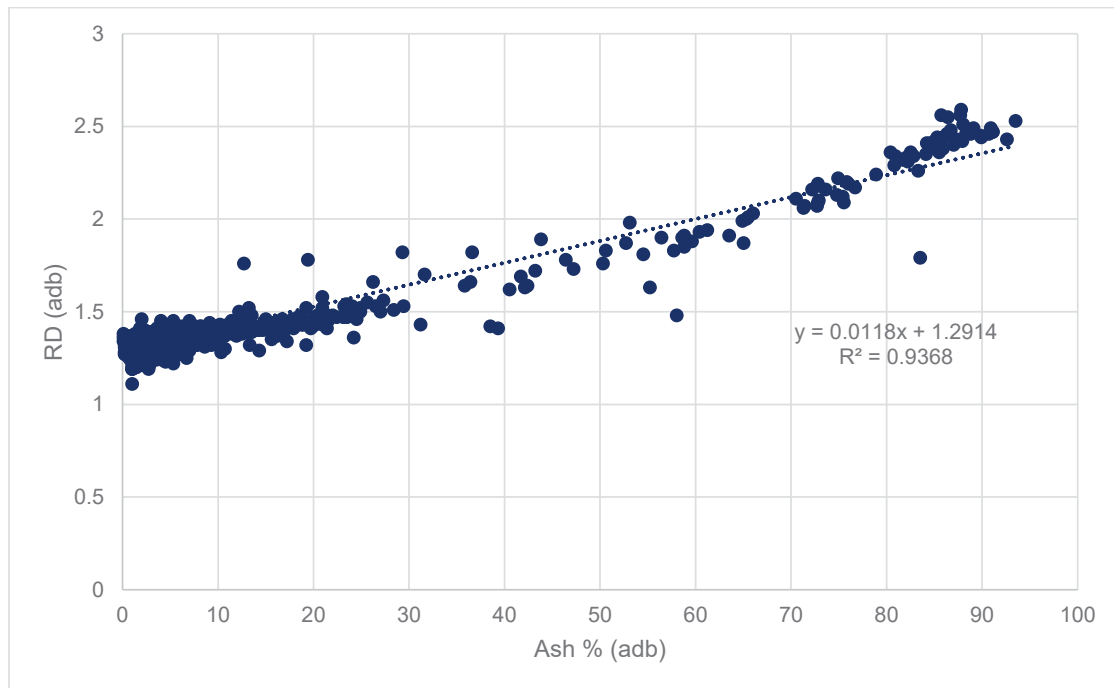


Figure 3.18 Regression Analysis of Ash vs CV – All Seams Uncomposited – North Tutupan

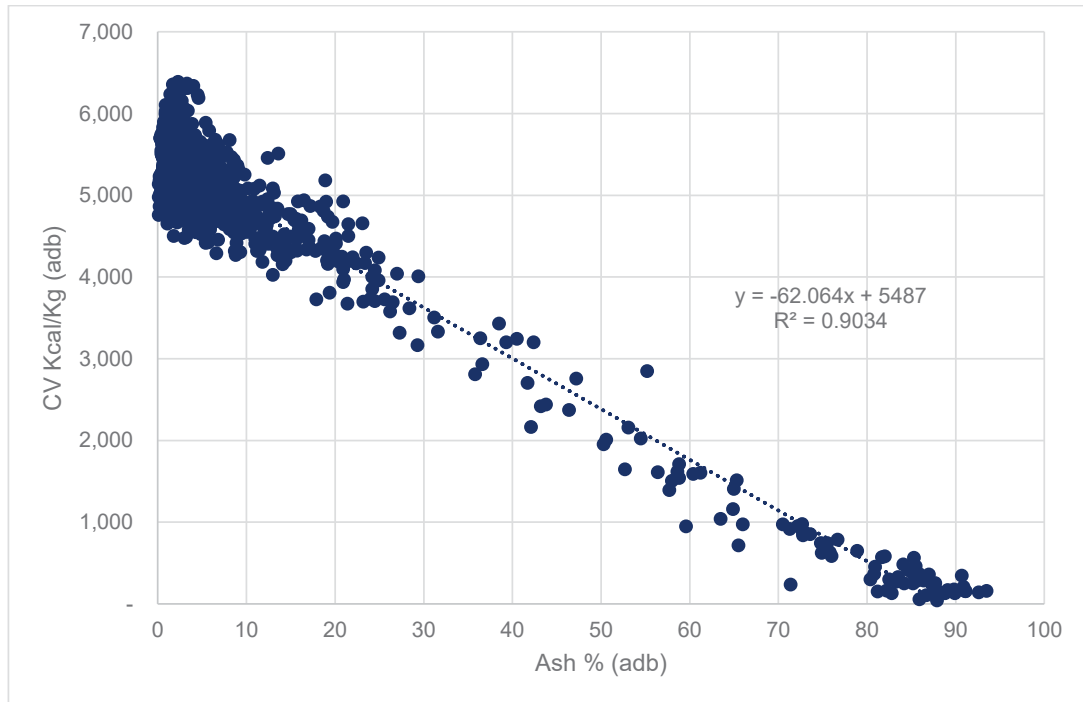


Figure 3.19 Regression Analysis of Ash vs RD – All Seams Uncomposited– South Tutupan

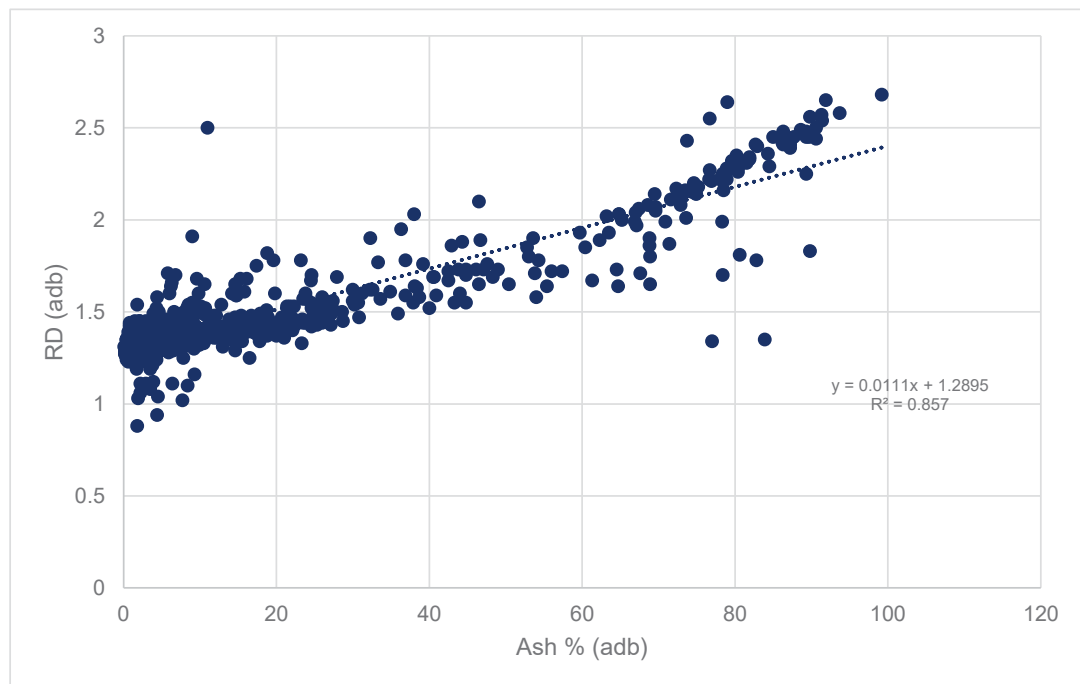


Figure 3.20 Regression Analysis of Ash vs CV – All Seams Uncomposited – South Tutupan

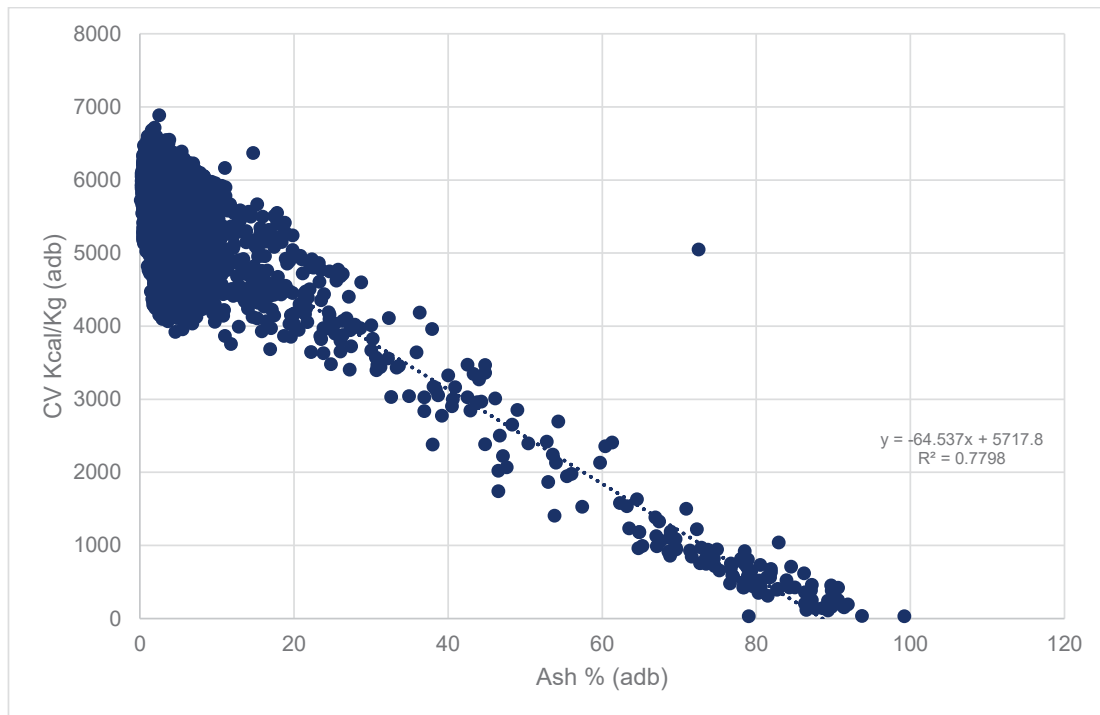


Figure 3.21 Regression Analysis of Ash vs RD – All Seams Uncomposited – Wara 1

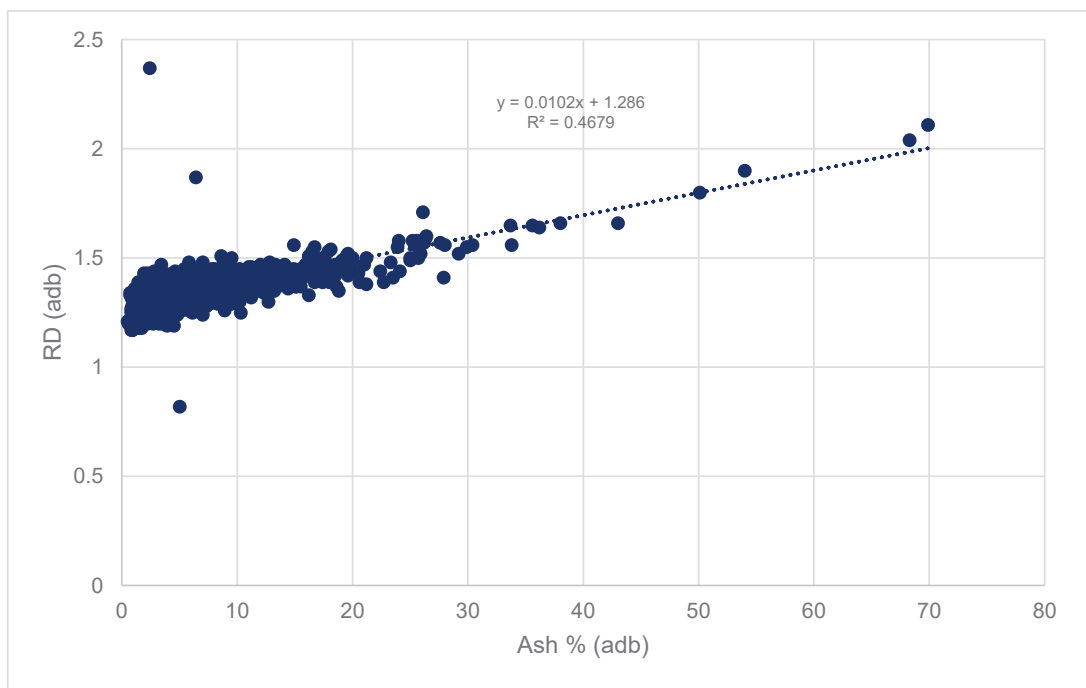


Figure 3.22 Regression Analysis of Ash vs CV – All Seams Uncomposited – Wara 1

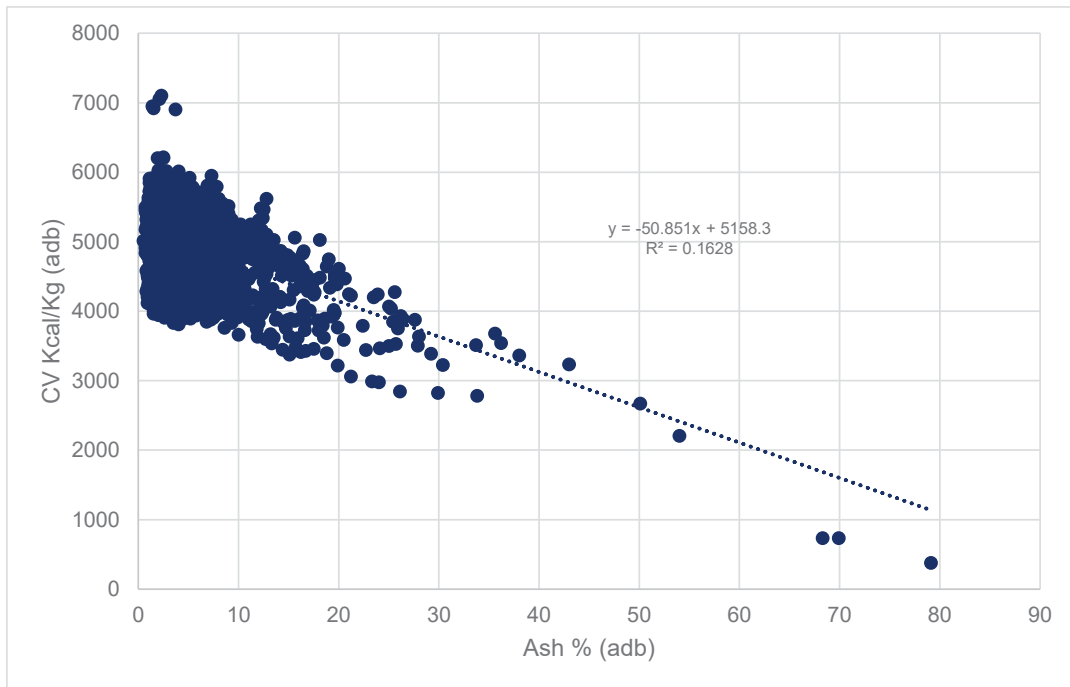


Figure 3.23 Regression Analysis of Ash vs RD – All Seams Uncomposited – North Paringin

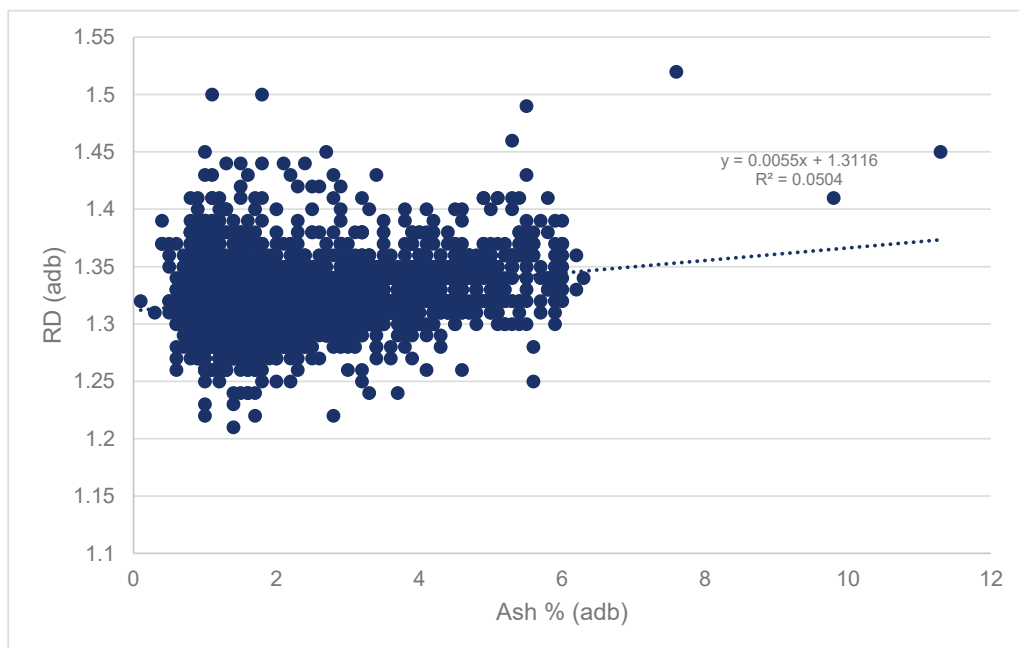
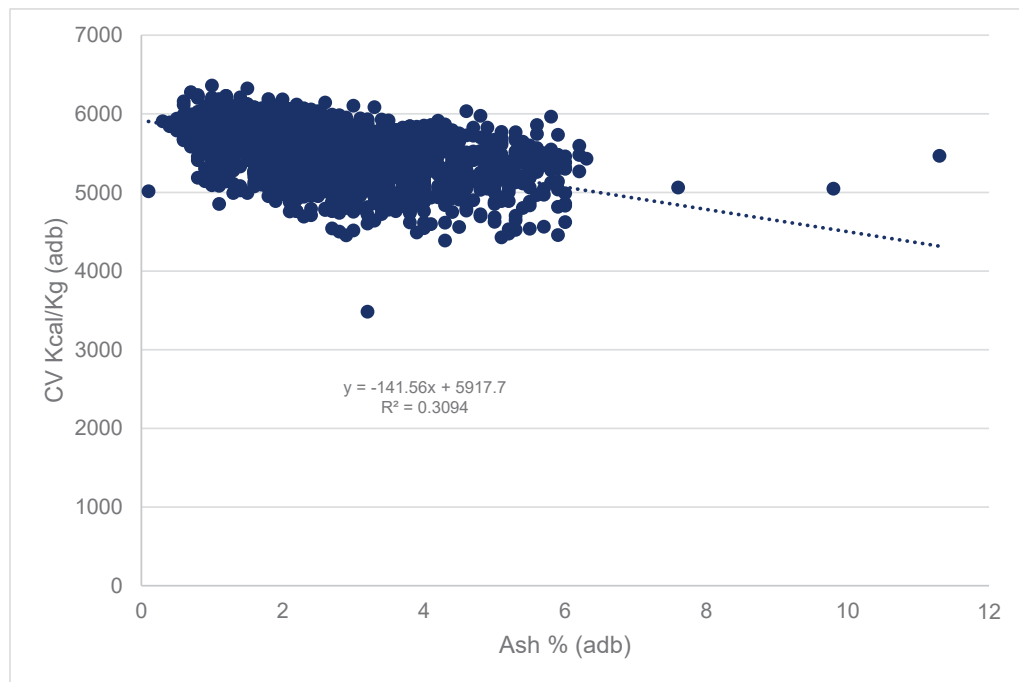
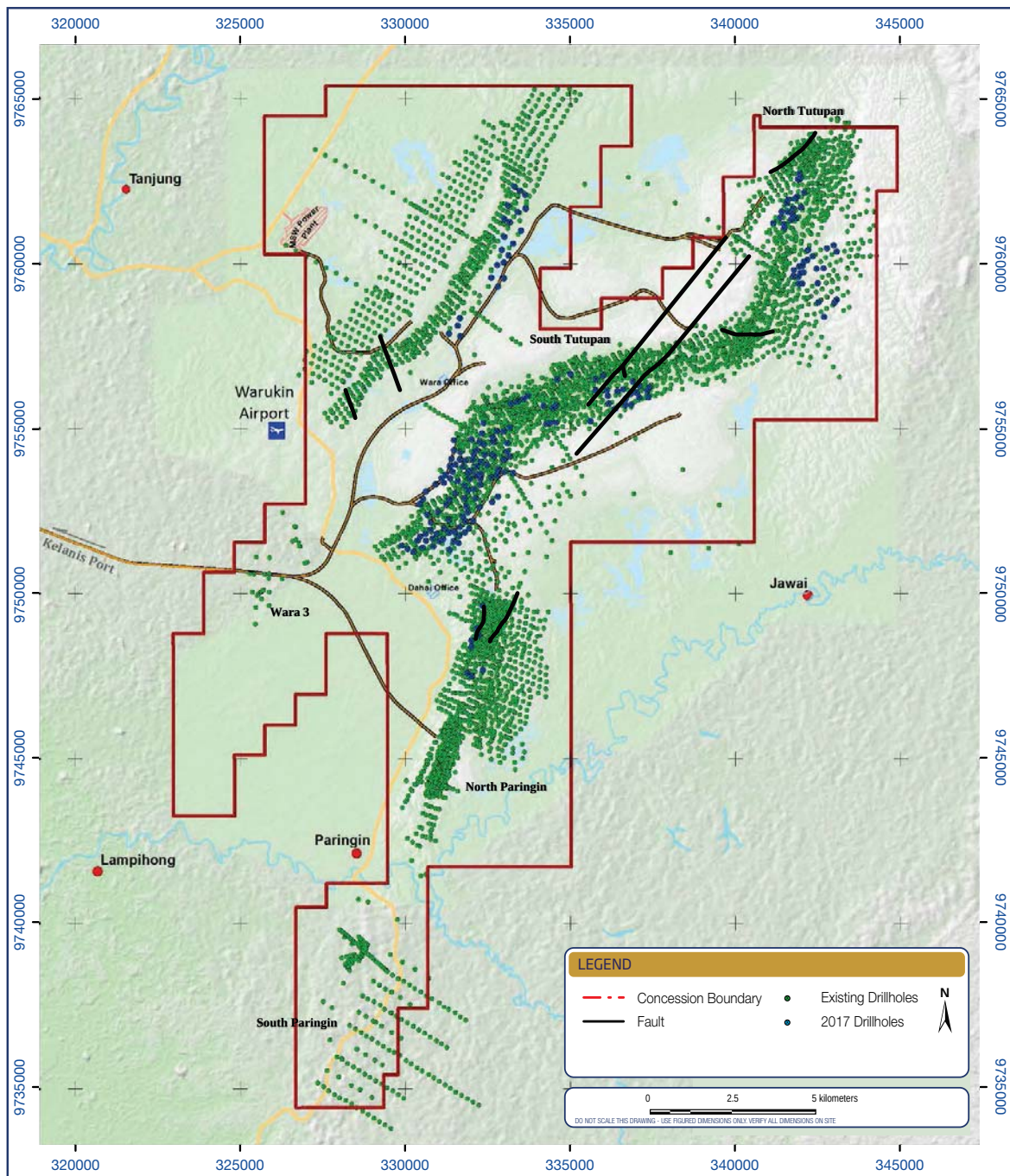


Figure 3.24 Regression Analysis of Ash vs CV – All Seams Uncomposited – North Paringin



3.5 Key Observations and Opinions

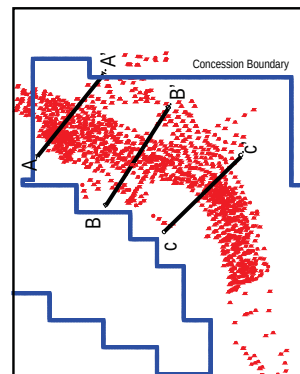
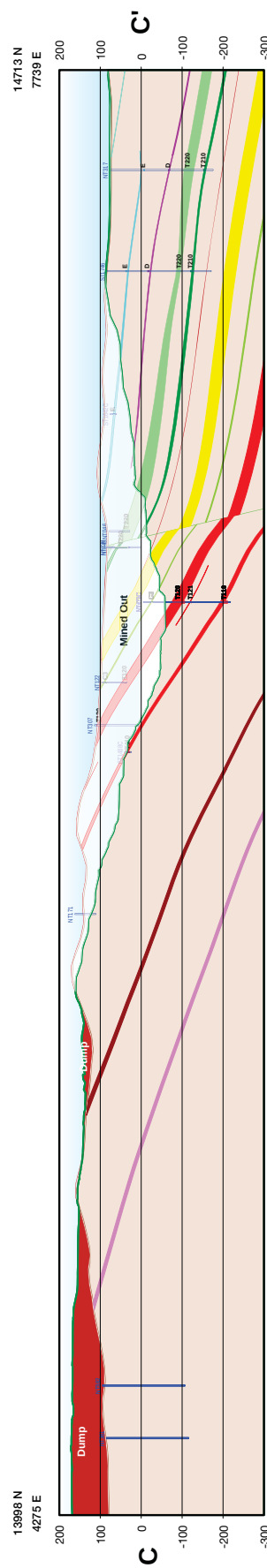
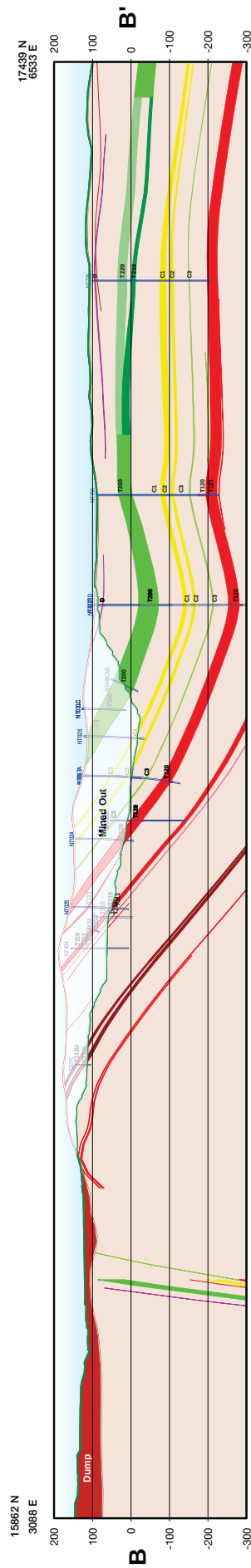
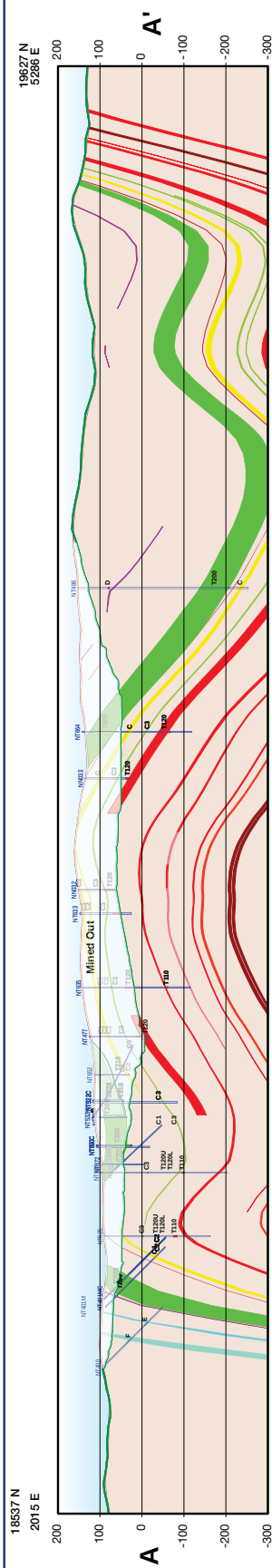
RPM is of the opinion that geological data collection and interpretation has generally been conducted to a reasonable standard. There were no fatal flaws identified and are therefore the geological data is adequate to be used as basis for Coal Resources evaluation.



Source: Estimate of PT Adaro Indonesia Coal Resources as at December 31, 2017

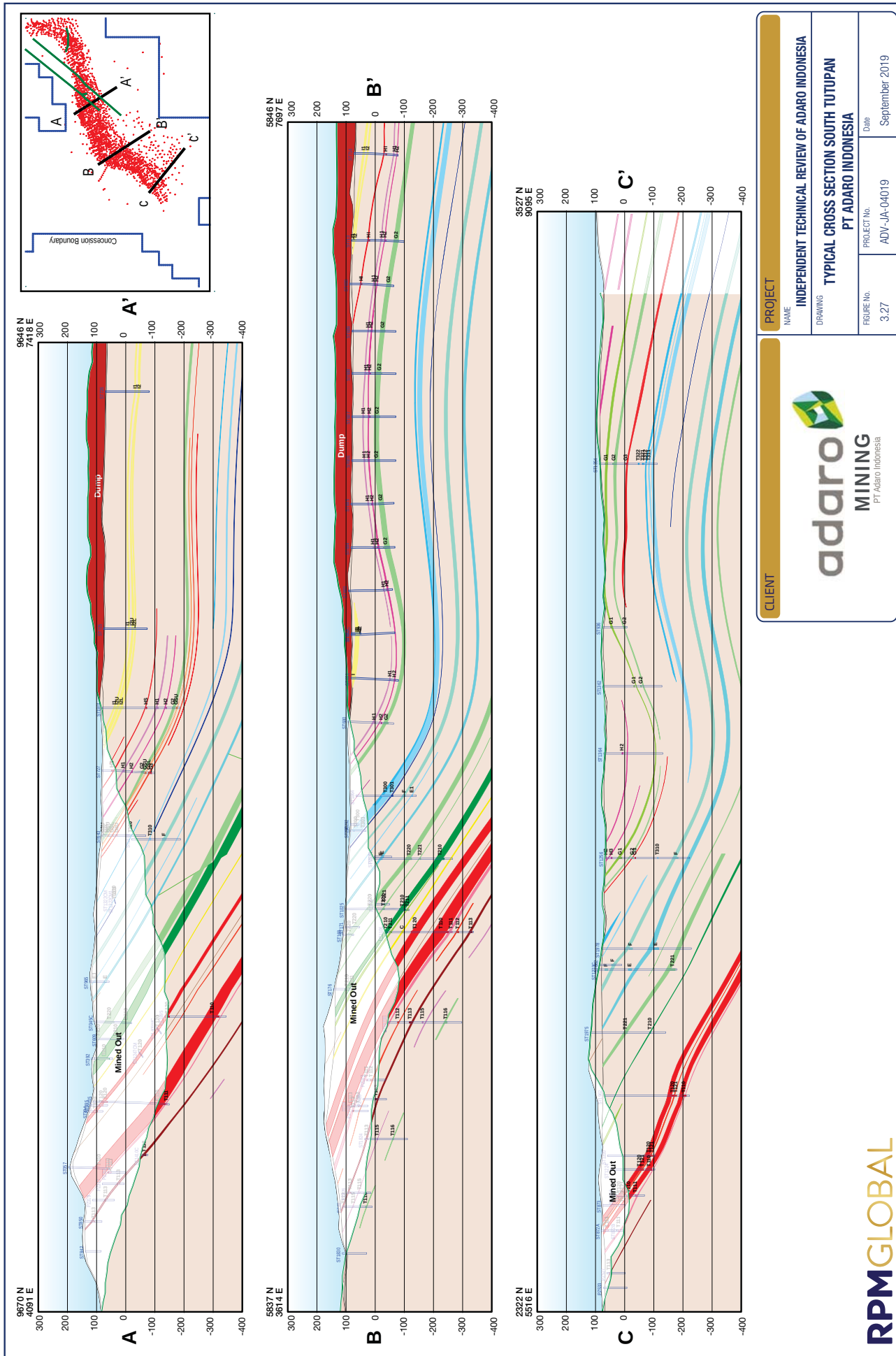
RPMGLOBAL

CLIENT		PROJECT	
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		DRAWING DRILLHOLE LOCATION MAP - 2017 PT ADARO INDONESIA	
FIGURE No. 3.25	PROJECT No. ADV-JA-04019	Date September 2019	



 adaro MINING PT Adaro Indonesia	PROJECT		
	NAME		
	INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA		
	DRAWING		
TYPICAL CROSS SECTION NORTH TUTUPAN			
PT ADARO INDONESIA			
FIGURE No.	PROJECT No.	Date	
3.26	ADV-JA-04019	September 2019	

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MINING
PT Adaro Indonesia

CLIENT

PROJECT

NAME
INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA

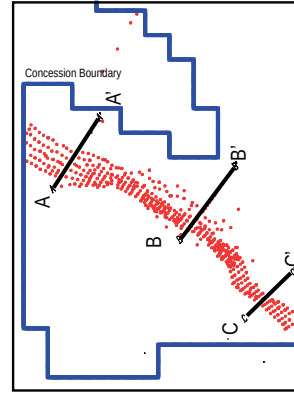
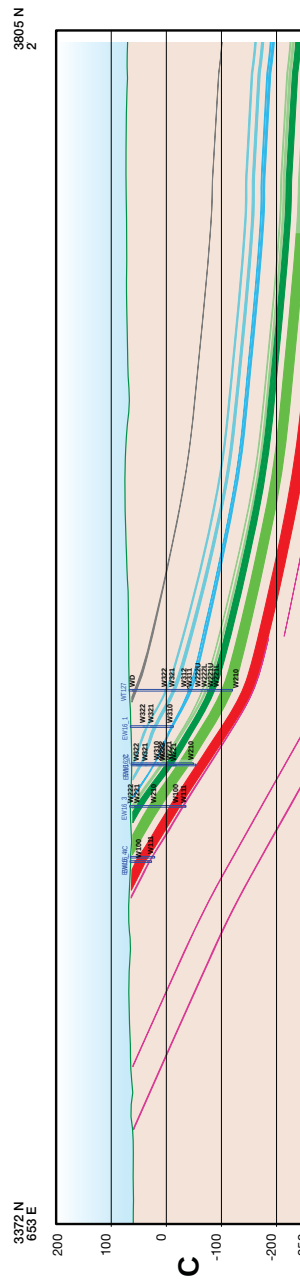
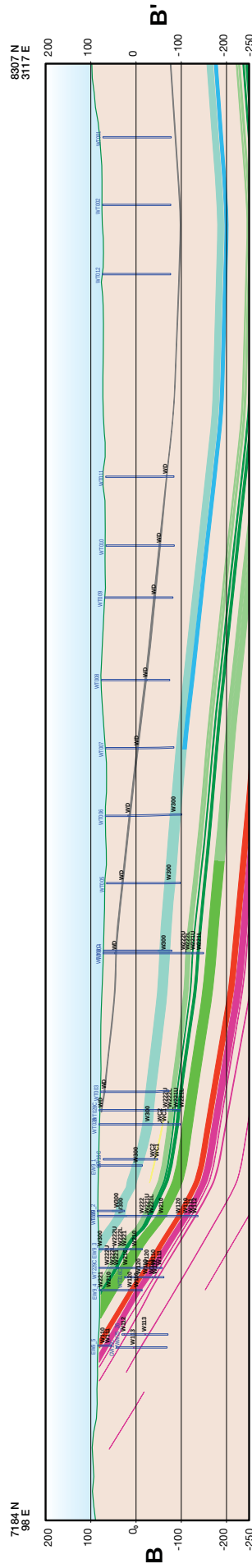
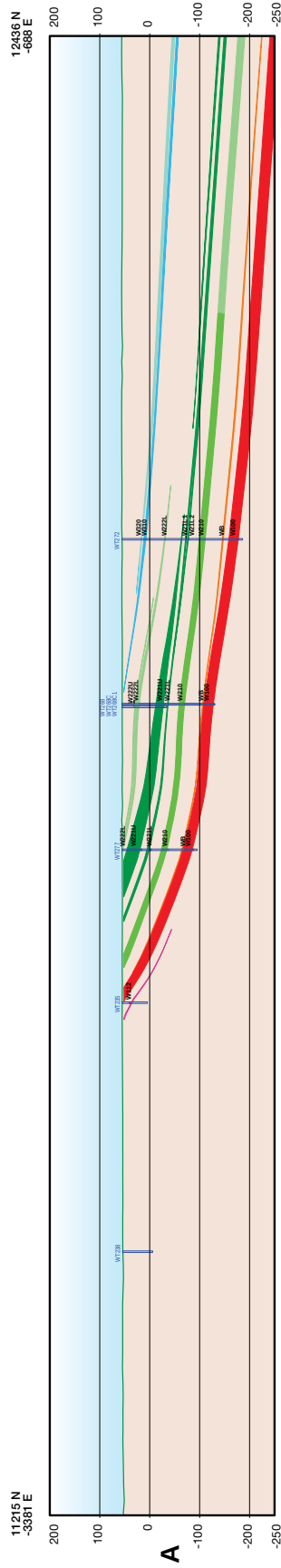
DRAWING
TYPICAL CROSS SECTION SOUTH TUTUPAN
PT ADARO INDONESIA

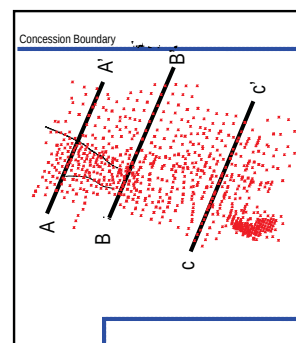
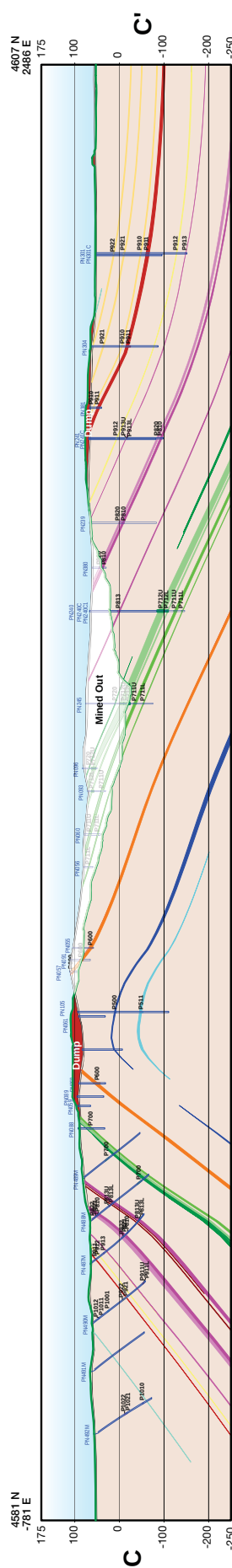
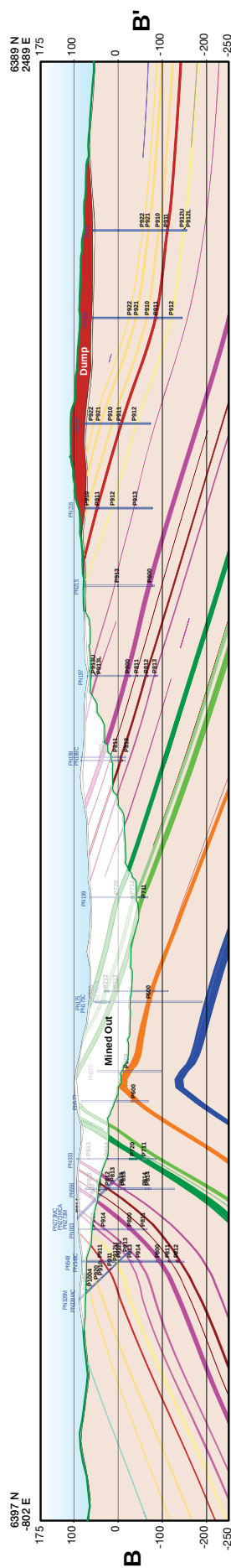
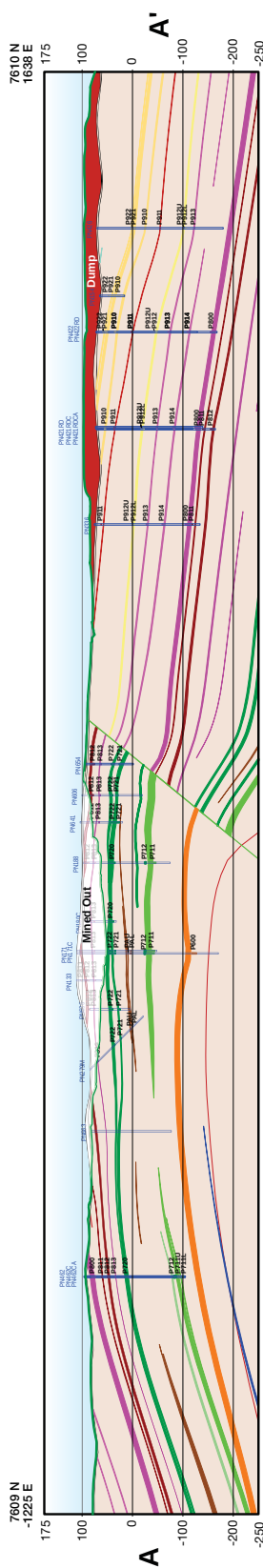
FIGURE No.
3.27

PROJECT No.
ADV-JA-04019

Date
September 2019

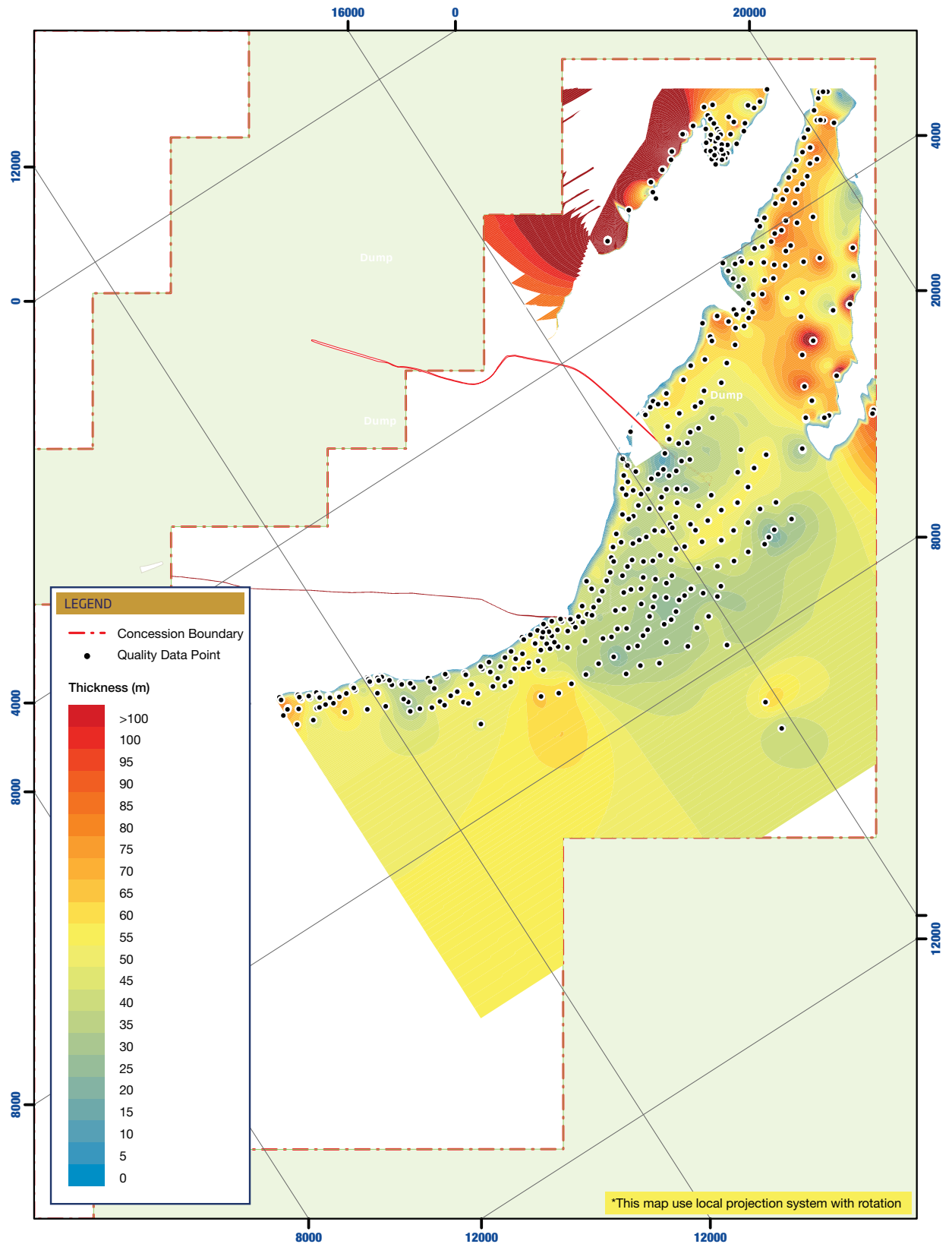
RPMGLOBAL





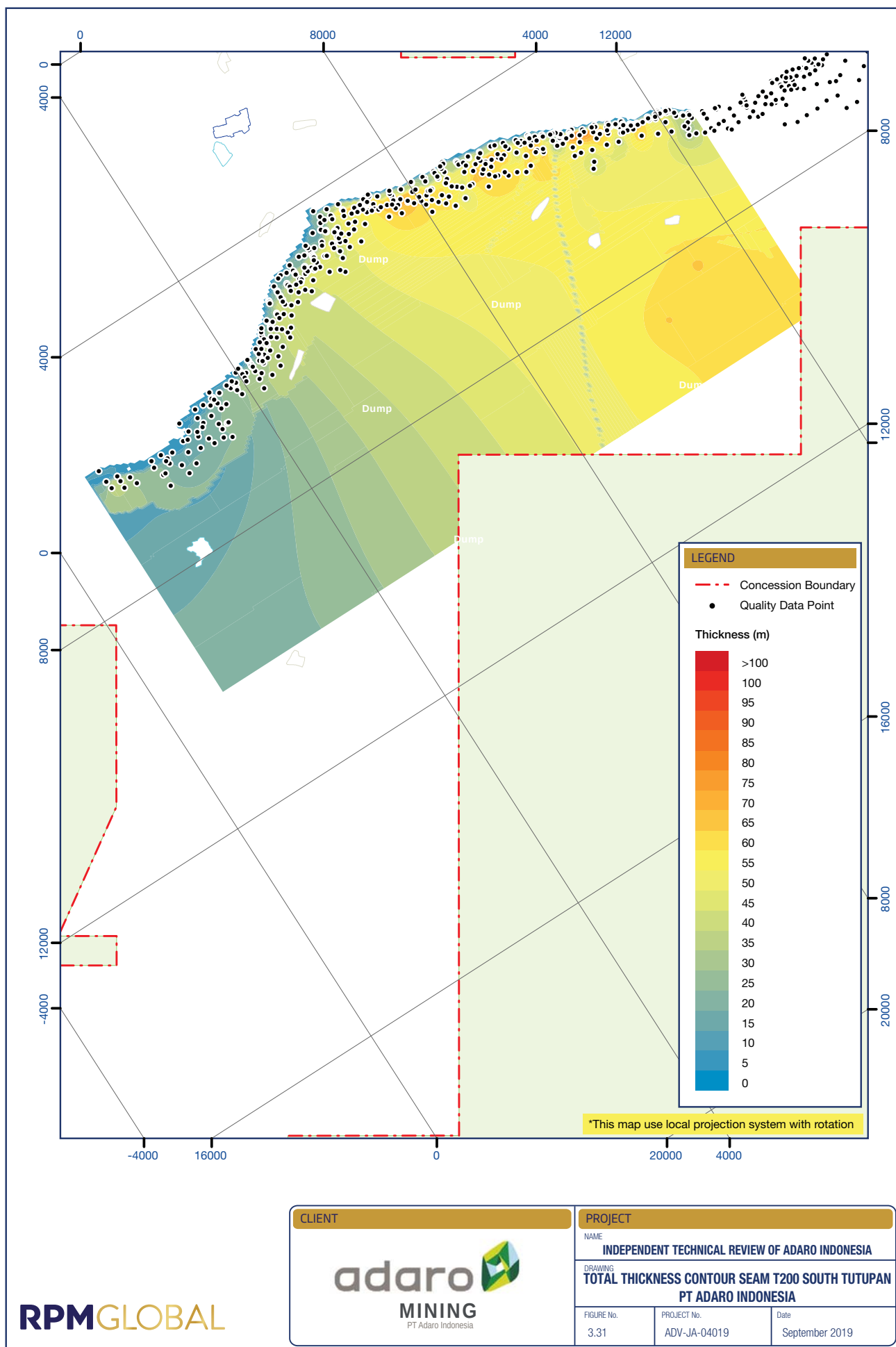
RPM GLOBAL

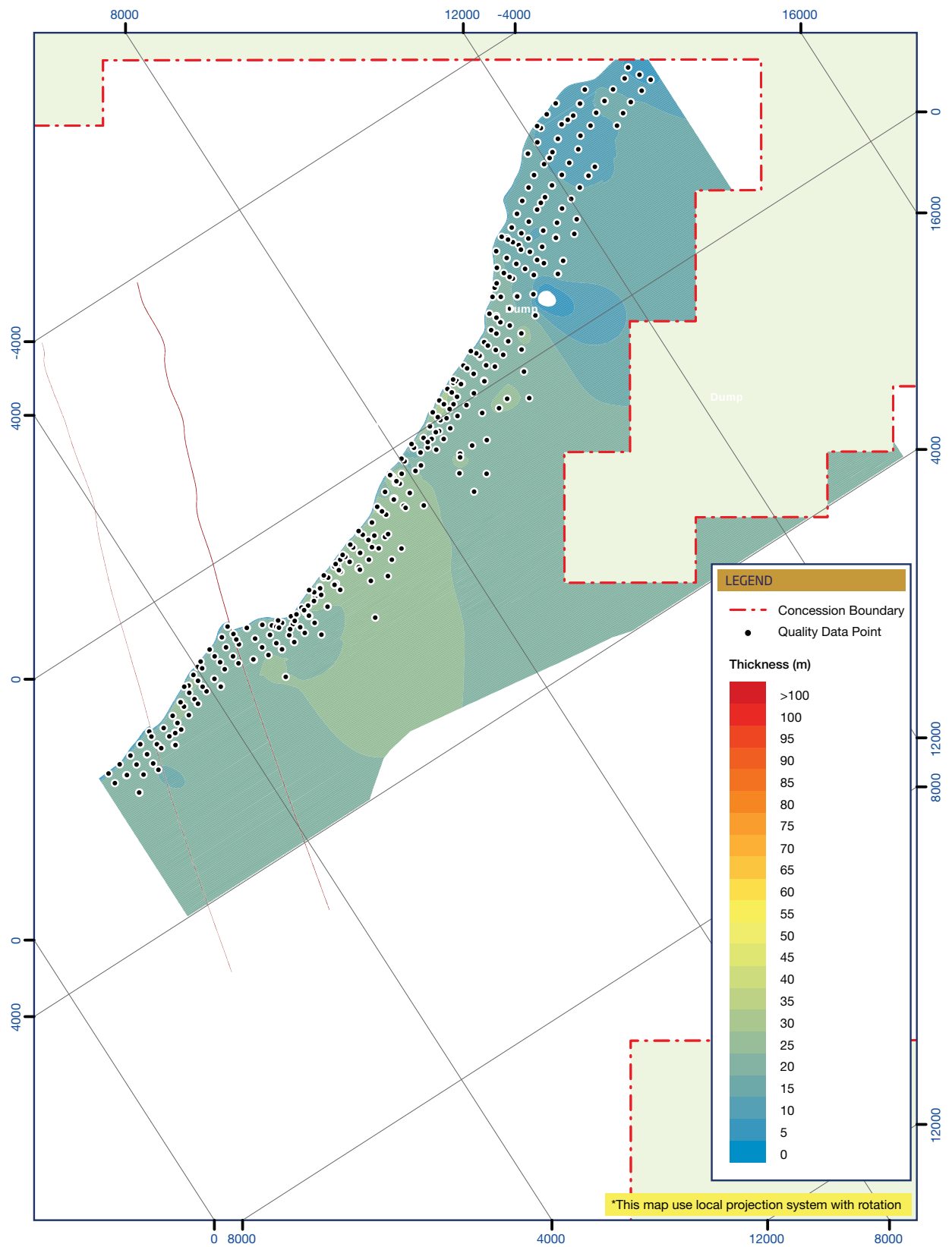
 adaro MINING PT Adaro Indonesia	PROJECT		
	NAME		
	DRAWING		
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	FIGURE No.	PROJECT No.	Date
3.29	ADV-JA-04019	September 2019	



RPMGLOBAL

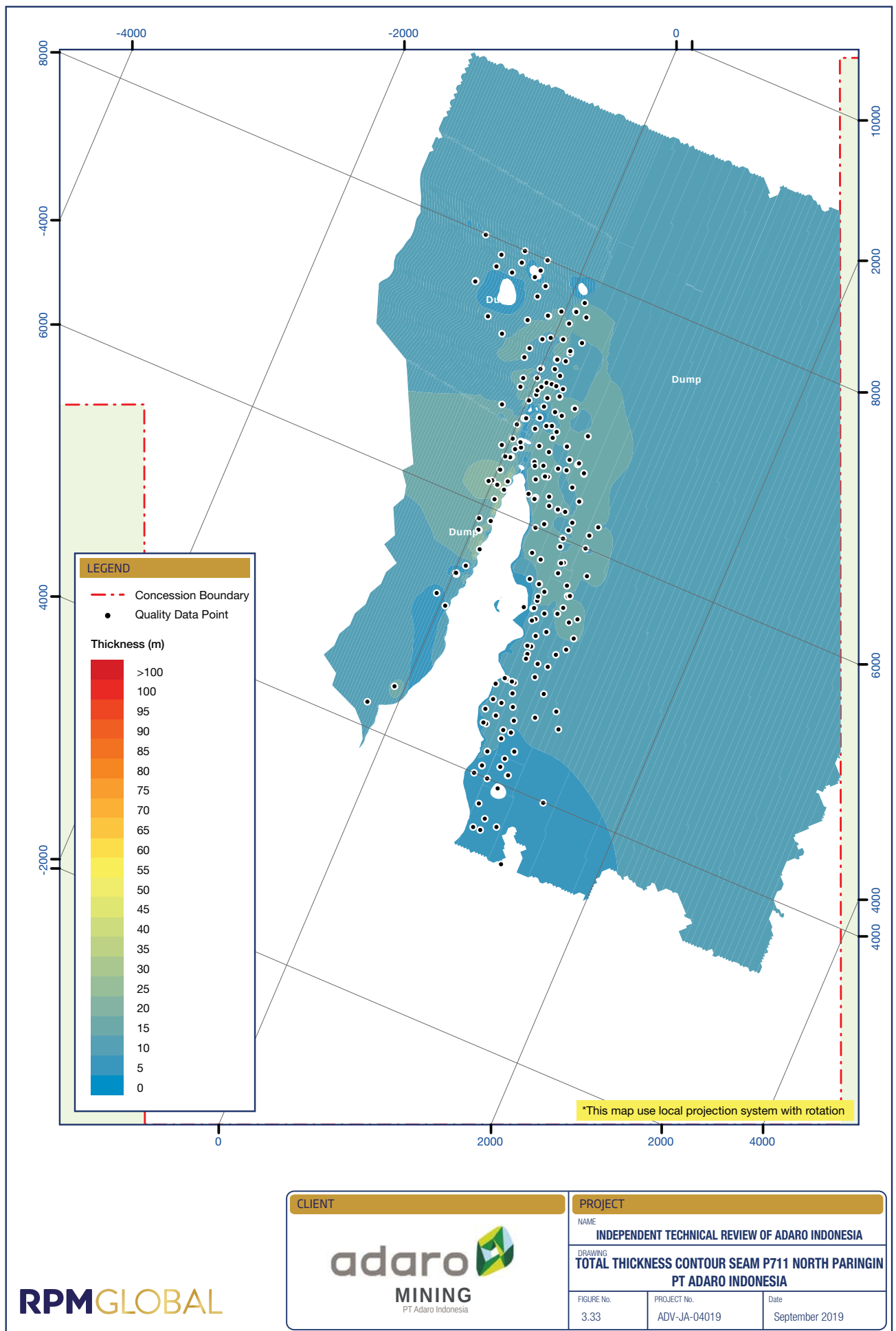
CLIENT		PROJECT	
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		DRAWING: TOTAL THICKNESS CONTOUR SEAM T200 NORTH TUTUPAN PT ADARO INDONESIA	
FIGURE No. 3.30	PROJECT No. ADV-JA-04019	Date September 2019	





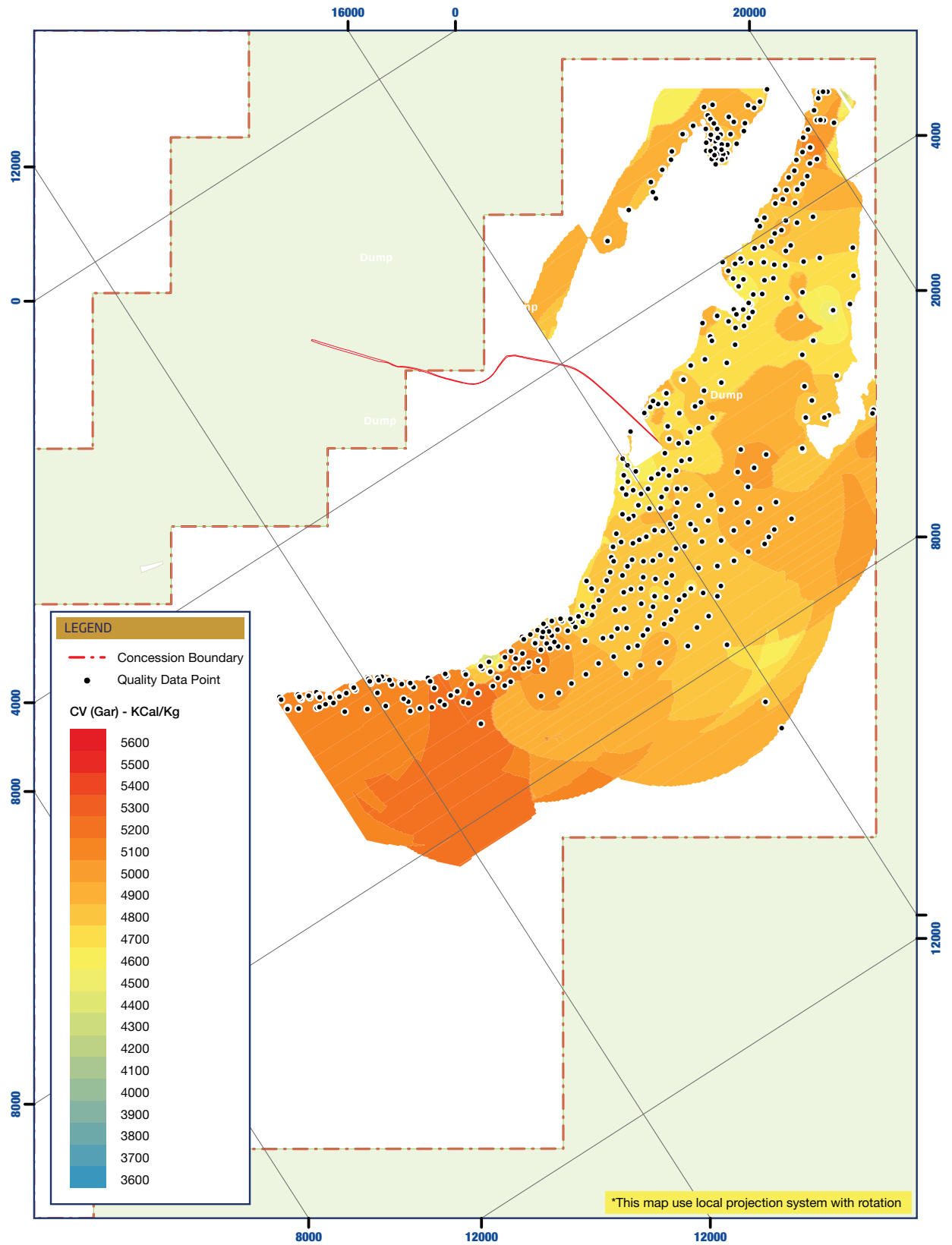
RPMGLOBAL

CLIENT		PROJECT		
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		DRAWING TOTAL THICKNESS CONTOUR SEAM W210 WARA 1 PT ADARO INDONESIA		
		FIGURE No. 3.32	PROJECT No. ADV-JA-04019	Date September 2019



RPMGLOBAL

CLIENT		PROJECT		
 adaro MINING PT Adaro Indonesia		NAME INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA		
		DRAWING TOTAL THICKNESS CONTOUR SEAM P711 NORTH PARANGIN PT ADARO INDONESIA		
		FIGURE No. 3.33	PROJECT No. ADV-JA-04019	Date September 2019



RPMGLOBAL

adaro 
MINING
 PT Adaro Indonesia

PROJECT

NAME:

INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA

DRAWING

**CONTOUR QUALITY CV GAR SEAM T200 NORTH TUTUPAN
 PT ADARO INDONESIA**

FIGURE No.

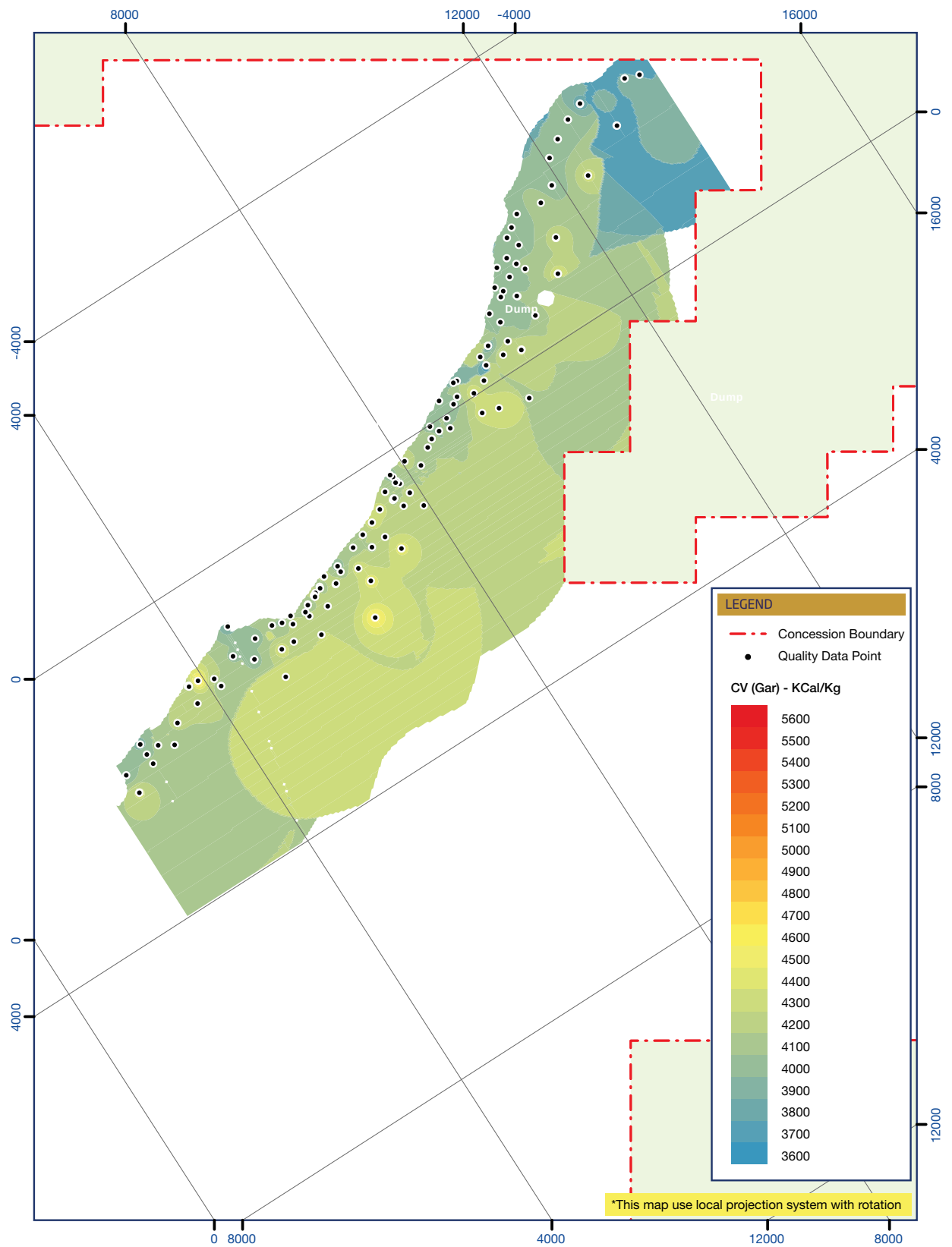
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PROJECT No.

ADV-JA-04019

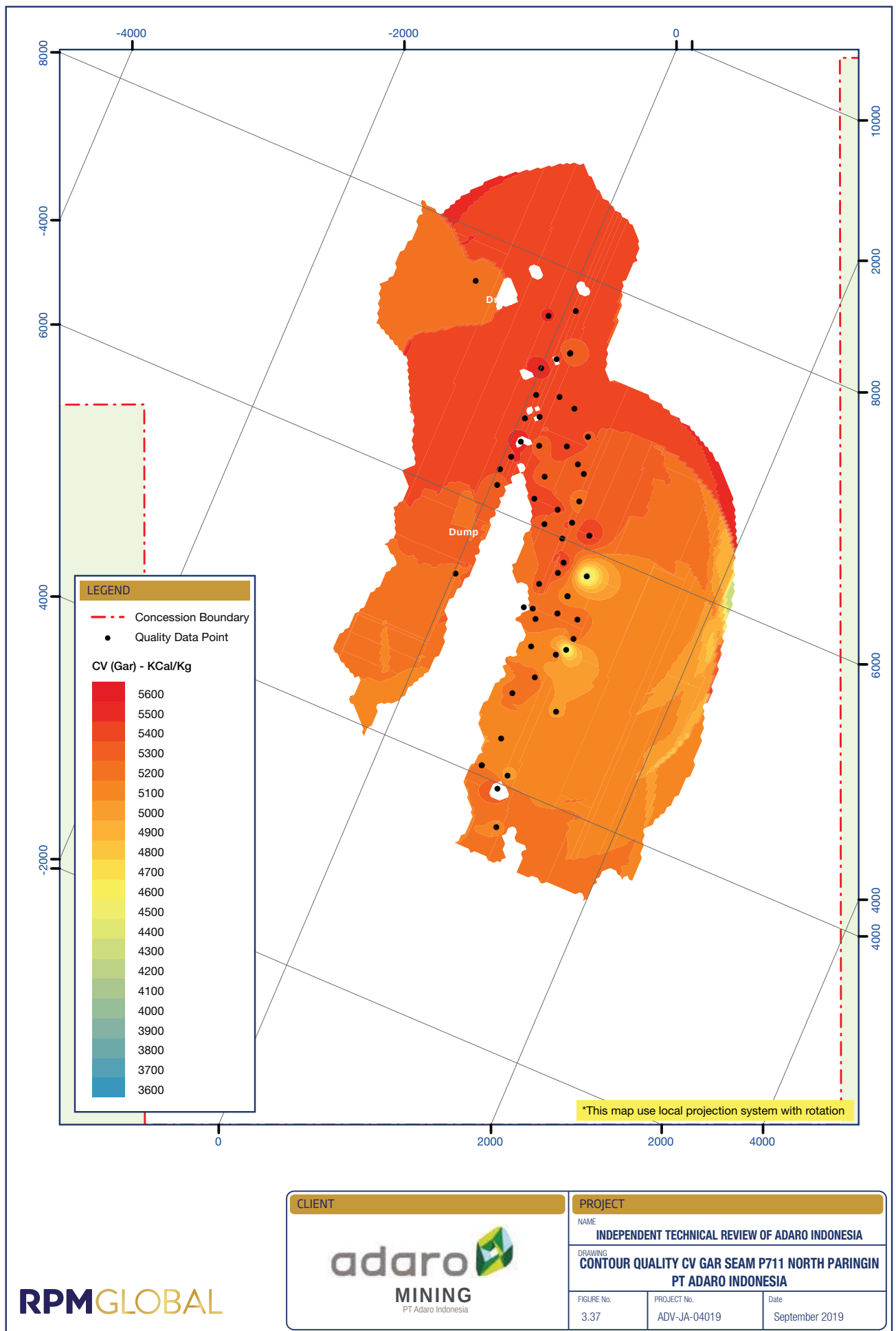
Date

September 2019



RPMGLOBAL

CLIENT		PROJECT		
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FIGURE No. 3.36		PROJECT No. ADV-JA-04019	Date September 2019	



3.6 JORC Resource Statements

A Statement of Coal Resources and Reserves for the Project has been previously completed, titled "Estimate of PT Adaro Indonesia Coal Resources as at December 31, 2017, Reported in Accordance with the 2012 JORC Code". This was issued in August 2018 by PT. Adaro Indonesia. RPM has reviewed this document and has made observations on both the Resources and Reserve estimates contained in the following sections. Adaro's estimated Resources are reported in compliance with the JORC Code (2012 Edition) and total 5,238 Mt including 3,079 Mt Measured Resources, 1,014 Mt Indicated Resources and 1,144 Mt Inferred Resources, as shown in **Table 3.15**.

Table 3.15 Adaro Coal Resources as at December 2017 – Adaro

Deposit	Adaro Coal Resources (Mt)				TM (ar)	Ash (ar)	VM (ar)	TS (ar)	CV (gar)	RD
	Measured	Indicated	Inferred	Total	%	%	%	%	Kcal/kg	In Situ
Tutupan South	713	207	263	1,183	28.5	2.7	35.1	0.13	4,862	1.27
Tutupan North	886	387	435	1,708	27.1	2.2	36.6	0.10	4,838	1.28
Wara 1	806	270	294	1,370	38.8	3.5	30.4	0.28	3,953	1.25
Wara 2**	355	26	16	397	43.3	3.0	29.1	0.22	3,666	1.22
North Paringin	298	86	92	476	28.6	3.7	33.5	0.25	4,758	1.29
South Paringin**	21	39	44	104	30.2	3.3	32.8	0.26	4,668	1.27
Total	3,079	1,014	1,144	5,238	31.9	2.9	33.7	0.18	4,512	1.27

*Source: Adaro Jasabara Indonesia, "Estimate of PT Adaro Indonesia Coal Resources as at December 31, 2017", date of report 8 August 2018"

**Wara 2 and South Paringin were not included in the RPM technical review

3.7 Coal Resources

Based on the geological models provided and Resource boundaries, RPM made the following Resource classification observations:

- Adaro used the spacing for Coal Resource tabulated in **Table 3.16**. RPM is of the opinion that these parameters are reasonable for quantity Point of Observation (PoO), due to the generally simple to moderate geological structure.

Table 3.16 Coal Resources Point of Observation – Adaro

Category	PoO Distance	
	Major Seams & Shallow Dips	Minor Seams & Steep Dips
	Spacing	Spacing
Measured	500	250
Indicated	1,000	500
Inferred	2,000	1,000

- No additional information was provided in JORC Resources Statement 2017 in relation to PoO quality spacing. RPM recommends that this information be included in an updated Resource Statement as per *Australian Guidelines for the Estimation and Classification of Coal Resources, 2014 Edition*.
- RPM notes that Adaro used much wider quality PoO spacing during Resource classification for some seams in some areas. This may result in a level of recategorisation in some resource areas.
- A minimum thickness of 0.5 m has been applied with the exception of Tutupan area (1.0 m) and is a reasonable lower limit that achieves raw coal ash less than 10%. This is considered to be a reasonable parameter.

- A minimum separable thickness of 0.3 m has used for all areas. This was found to be reasonable, particularly for the main seams.
- The elevations defined in **Table 3.17** have been applied as the bottom limit of resource estimation in each area, being based on the maximum depths identified in a series of pit optimisations completed by several consultants in around 2010.

Table 3.17 Coal Resources Elevation Limits

Area	Bottom Limit (mRL)
North Tutupan	-296
South Tutupan	-296
North Paringin	-200
Wara 1	-204

RPM completed a more detailed Resource estimation review by re-estimating the quantity of some of the major seams in each area based on the Resource boundaries provided. It is noted that no significant variances were identified in South Tutupan and Wara 1 Blocks. North Tutupan and North Paringin block however, show material deviation which is most likely due to different versions of the geological model being used. The cross check estimate of Coal Resources is shown in **Table 3.18**.

Table 3.18 Coal Resources Check Estimate

Area	Seam	Tonnage (kt)						Variance		
		Adaro			RPM					
		Mea	Ind	Inf	Mea	Ind	Inf	Mea	Ind	Inf
North Tutupan	T220	129,654	51,726	73,495	135,221	78,177	75,162	104%	151%	102%
	T200	235,044	134,155	65,688	243,780	128,576	41,640	104%	96%	63%
	C	170,623	60,043	64,994	172,445	60,281	80,640	101%	100%	124%
	T120	201,186	56,233	104,601	203,437	51,166	102,412	101%	91%	98%
South Tutupan	G2	54,044	37,303	55,006	54,175	37,331	55,031	100%	100%	100%
	F	66,955	19,001	35,150	67,122	18,970	35,190	100%	100%	100%
	T210	67,418	3,580	6,390	67,322	3,555	6,395	100%	99%	100%
	T110	92,157	7,461	6,069	92,394	7,423	6,041	100%	99%	100%
Wara 1	W100	212,643	33,780	1,203	214,810	34,092	1,207	101%	101%	100%
	W210	215,067	81,455	55,788	221,845	83,174	56,770	103%	102%	102%
	W220	185,920	67,877	89,468	193,651	69,389	90,613	104%	102%	101%
North Paringin	P800	35,359	7,336	45	35,429	8,881	1,827	100%	121%	4061%
	P711	33,826	6,403	7,047	31,030	7,629	6,741	92%	119%	96%
	P600	22,643	8,380	664	21,747	9,174	4,286	96%	109%	646%
	P500	32,640	6,788	0	32,803	6,763	268	101%	100%	~

The Coal Resource estimation parameters that were used by Adaro are, in most cases, acceptable. RPM's review indicates that the test for the reasonable prospect for eventual economic extraction of resources has not been fully completed. RPM believe that this is likely to have an impact on the reported Resources and recommend that future Coal Resource Estimates include the full application of assumptions to test the reasonable prospect for eventual economic extraction.

Coal depletion due to production has not been applied by Adaro since the end of 2017. RPM recommends that allowance be made for coal depletion in the next update of the Coal Resource estimate.

4. Coal Reserves

Key Observations

- RPM has completed a technical review of the mining plan and accompanying data and are of the opinion that the Coal Reserves are estimated in accordance with the requirements of the JORC Code (2012 Edition).
- The Measured Resource within the economic pit has been categorised as a Proved Reserve and the Indicated Resource has been categorised as a Probable Reserve.
- RPM has completed sample checks on a subset of the Reserves on a seam basis in order to validate the result. The approach was to estimate the Reserves for a select group of seams within the supplied Resource polygons. A relatively low variance was observed overall but there was a more significant difference in the Probable Reserve category. Additional analysis is required to verify the reason for the difference.

4.1 Principles of the JORC Code

The main principles of the JORC Code are Transparency, Materiality and Competence.

- Transparency requires that the reader of the public report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by the information or by omission of information known to the Competent Person.
- Materiality requires that a public report contains all the relevant information that investors and their professional advisors would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgement regarding the Exploration Results, Mineral Resources or Ore Reserves being reported. Where relevant information is not supplied an explanation must be provided to justify its exclusion.
- Competence requires that the public report be based on work that is the responsibility of suitably qualified and experienced persons.

The JORC Code provides minimum standards for public reporting of Resources and Reserves to the investment community. For coal deposits, the JORC Code is supplemented by the “Australian Guidelines for the Estimation and Classification of Coal Resources, 2014 Edition” (the Guidelines).

The JORC Code and the Guidelines provide a methodology which reflects best industry practice to be followed when estimating the quality and quantity of Coal Resources and Reserves.

This section of the report explains the reasonable background basis used by Adaro to incorporate the principles of the JORC Code into the Coal Reserves estimates. It also explains the approach used by the Adaro Competent Person to confirm that the principles of the JORC Code have been observed, and that the Reserves have been estimated in accordance with the principles and intent of the JORC Code.

4.2 Coal Reserves

Table 4.1 summarises the Coal Reserves as at 31st December 2017 as outlined in the report titled “Estimate of PT Adaro Indonesia Coal Reserve as at 31st December 2017”, October 2018.

RPM has completed a technical review of the mining plan and accompanying data and are of the opinion that the Coal Reserves are estimated in accordance with the requirements of the JORC Code (2012 Edition).

The Coal Reserves total 915 Mt of which 844.4 Mt are categorised as Proved and 70.6 Mt categorised as Probable.

Table 4.1 Coal Reserves as at 31 December 2017

Deposit	Adaro Coal Reserve (Mt)			TM %	Ash (gar) %	VM (gar) %	TS (gar) %	CV (gar) Kcal/kg
	Proven	Probable	Total					
Tutupan South	134	3.9	137.9	27.44	2.06	36.05	0.11	4,991
Tutupan North	413.2	47.1	460.3	27.2	1.99	36.47	0.08	4,789
Wara 1	273.9	18.8	292.7	39.27	2.77	30.5	0.21	3,983
North Paringin	23.3	0.8	24.1	26.25	2.88	35.24	0.19	5,040
Total	844.4	70.6	915	31.07	2.27	34.46	0.13	4,568

*Source: "Adaro Indonesia, Estimate of PT Adaro Indonesia Coal Reserve as at 31th December 2017, October 2018"

The estimation methodology used by Adaro can be described as follows:

- The economic deposit limit has been determined by an optimisation process using appropriate mining software.
- Coal price benchmark and operating costs have been applied into the optimisation as variables to determine the pit shell margin (Breakeven Stripping Ratio / "BESR").
- Mining factors such as minimum coal mining thickness, minimum separable parting thickness, coal losses, coal dilution and recovery factors have been applied to convert the in situ geological model into a mining ROM model for the basis of mineable quantity estimation.
- Physical constraints such as, mining concession limit, infrastructure area, dumping and rehabilitation area, etc. have been considered as a constraint or a limit for the optimisation process.
- The pit shell derived from the optimisation process has been used to guide the construction of a practical pit design forming the basis of an operational design.
- The area for dumping waste material (waste dump) has been technically designed to support the Life of Mine plan.
- Mine scheduling has been undertaken within the pit and dump design which incorporates the long-term mining strategy, production target, dump balance and other mining considerations.
- The result of the Life of Mine plan has been used to evaluate the project viability determined by the Project NPV.
- Consideration of capital expenditure, long-term coal price forecast and production costs forecast have been included in the Project economic model.
- Sensitivity analysis has been undertaken to examine the impact of changes in revenue and cost on the Project NPV.
- As a result, a positive NPV has been determined from the Project to validate that the coal within the pit design can be categorised as a Reserve.
- The Measured Resource within the economic pit has been categorised as a Proved Reserve and the Indicated Resource has been categorised as a Probable Reserve.

As a requirement of the JORC Code, Adaro has addressed Table 1 of JORC Code as follows:

RPM is of the opinion that the Adaro Reserve Statement as stated in the report titled "Estimate of PT. Adaro Indonesia Coal Reserves at 31 December 2017" has been undertaken in accordance with JORC 2012 Code and there are no fatal flaws identified during the review of the documents, approach and methodology.

As part of the Reserve review, RPM also included a discussion with key Adaro personnel, joint reconciliation of the estimation, validation of the provided data and a site visit.

RPM has completed sample checks on a subset of the Reserves on a seam basis in order to validate the result. The approach was to estimate the Reserves for a select group of seams within the supplied Resource polygons. The checks indicate variance between the Adaro Coal Reserve, as in the Statement report, and RPM as shown in **Table 4.2**.

Table 4.2 Coal Reserve Sample Reconciliations

Area	Number of seams being tested	% of Tonnage Seam being tested compare to total tonnage	Var (Total)	Var (Proved)	Var (Probable)
Tutupan South	4	30%	0%	0%	-
Tutupan North	4	86%	1%	1%	0%
Wara 1	3	60%	0%	1%	-26%
North Paringin	5	65%	-4%	-4%	-

The results of the reconciliation shown in **Table 4.2** above shows positive discrepancies despite a significant variance in probable estimation for Wara 1 and North Paringin. The finding has been acknowledged by Adaro during the check and site visit discussion.

RPM is of the opinion that due to the difference of the estimate provided by Adaro, an audit and check of the Resource model and polygon categorisation is warranted.

RPM confirms that the reserve quantity estimate reported by Adaro is sufficient to support the 2018 Life of Mine production target.

4.3 Table 1 Estimation and Reporting of Ore Reserve

The JORC Code 2012 provides a checklist table as a guideline to estimation and reporting of Ore (Coal) Reserves. RPM understands that Adaro has completed the Table 1 in support of the coal reserve estimation. Table 1 has been extracted from the Adaro JORC report "Estimate of PT Adaro Indonesia Coal Reserve as at 31st December 2017, October 2018", and is reproduced in **Appendix A**.

RPM is of the opinion that Adaro has completed the JORC requirement and in general has been able to demonstrate the basis of reserve estimation.

5. LOM Plan Review

Key Observations

- RPM is of the opinion that the pit optimisation process applied has followed the standard process and common practice in the industry. RPM did not identify any fatal flaws during the review of the Adaro optimisation process.
- Pit design parameters are based on the latest update of geotechnical analysis (benchmarked against field data) provided by Geotechnical and Hydrogeology Department Adaro Indonesia.
- RPM is of the opinion that Adaro follows common industry processes to develop pit designs. There were no fatal flaws identified by RPM during the review.
- Adaro has applied the geotechnical recommendations from their internal technical department to develop the design parameters used to generate the pit designs.
- The dump design is based on 12 m vertical benches with a batter slope of 20 degrees. A 50 m berm is assumed at each 12 m lift. A limit of 110 m maximum height is achievable over the LOM. Dump stability analysis has shown either removal of underlying soft clay material, or the use of stability berms will be required in potential problem areas to achieve these heights safely. The dump designs provided for review are within this advice.
- RPM understands that several parts of actual and planned expit dumps lay outside the Adaro concession boundary. Adaro has confirmed that the legal permit for the dump area outside of the concession is in place.
- RPM is of the opinion that Adaro has undertaken a detailed LOM study at the level to support an operating mine level.
- The reconciliation results indicate that the difference between the tonnages estimated from the geological model and the actual mined tonnages, as measured by the weighbridge, ranged between 93% and 96%. This aligns relatively well with the recovery assumption of 96% outlined in the LOM plan, and is within an acceptable level of accuracy.

5.1 Overview

The current Adaro LOM plan was developed in 2017 to support the Reserve estimation (as at 31 December 2017) and has been updated as at 31 December 2018. The updated LOM (31 December 2018) was provided by Adaro for the purpose of this review. The accompanying data provided includes:

Reports:

- Coal Reserve report titled “Estimate of PT Adaro Indonesia Coal Reserve as at 31st December 2017, PT Adaro Indonesia October 2018”.
- Life of Mine Plan report titled “Life of Mine Plan as at End of Year 2018, PT. Adaro Indonesia, 2018”.
- Dewatering plan report titled “Life of Mine Dewatering Plan (Advance), PT. Adaro Indonesia, 16 July 2019”.
- Infrastructure report titled “Life of Mine Infrastructure and Coal Processing Barge Loading Kelanis, PT. Adaro Indonesia, 12 August 2019”.
- Geotechnical report titled “Laporan Kajian Geoteknik, Geotechnical and Geohydrology Department, PT Adaro Indonesia, 30 June 2019”.

Excel Files:

- Financial Model LOM 2018 - to RPM.xlsx;
- Reserve Scheduling.xlsx;
- Summary_Reserves_JORC_LOM2018_North_Tutupan.xlsx;
- Summary_Reserves_JORC_LOM2018_PARINGIN.xlsx;
- Summary_Reserves_JORC_LOM2018_SOUTH_TUTUPAN.xlsx;
- Summary_Reserves_JORC_LOM2018_WARA.xlsx;
- North_Ttp_dbr.xlsx;
- South_Ttp_dbr.xlsx;
- Paringin_dbr.xlsx;
- Wara_dbr.xlsx;
- Summary JORC Report 2018 ("Coal reserve table as at 31st December 2017").xlsx;
- Cost and market price assumption.xlsx

Geological Model:

- Minescape models:
 - Model_Nttp_18a
 - Model_Sttp_18a
 - Model_Paringin_2018ar
 - Model_Wara1_18a
- Minex models folders:
 - North Tutupan
 - South Tutupan
 - Paringin
 - Wara
- DXF of LOM face positions.
-

Adaro Indonesia operates mature mining assets that is based on the mining of three deposit areas; Tutupan, Wara 1 and North Paringin. Operations commenced in the Tutupan area in 1997 and production has been expanded to the current rates of 40 Mtpa of thermal coal production. A trial pit commenced in Wara 1; extracting around 0.5 Mt between 1995 and 1998. Wara 1 production is continuing, with plans to reach approximately 8.0 Mtpa by the end of 2019. Mining commenced in the North Paringin area in 1991 and continued until 2000. Mining recommenced in 2010 with an approximate production of 1.0 Mtpa. The current plan is to increase production to approximately 6.0 Mtpa by the end of 2019.

RPM is of the opinion that the Adaro LOM report has been developed to a stage of operating mines study which have higher technical detail and support than the Pre-Feasibility study level that is required by the JORC Code to support a reserve estimate.

The following section describes the Adaro approach in developing the LOM study, with RPM comments on the issues and results.

5.2 Pit Limits

The location and limits of pit shells are controlled by a process referred to as "Pit Optimisation". The optimiser is based on the Lerchs-Grossmann technique that is commonly used to define economic pit limits

for both metal and coal mines. The optimiser determines the maximum-sized pit that can be mined until the final walls represent marginal or breakeven material. Inputs to the optimiser include the geological model, pit wall angles, coal price, waste and coal mining costs, CHP operating costs, product handling and transport costs, port charges, administration costs and royalties.

Typically the optimiser runs the Lerchs-Grossman algorithm at a number of different “Forcing Factors” (“FF”) where 100% FF represents application of 100% of the nominated coal price and 50% FF represents application of half the coal price. This produces a series of nested pit shells that depict the increase and decrease in cash positive resource with varying coal price.

The other important input is the physical and social constraints that may form hard limits to the extent of the possible pit limits. It is understood that the mine optimisation of each pit was constrained by dump area limitations and on ground infrastructure.

RPM understands that Adaro has completed a pit optimisation process for the entire mining area. A series of pit shells at varying coal prices and the corresponding optimisation results have been provided for RPM's review.

RPM is of the opinion that the optimisation process has followed the standard process and common practice in the industry. RPM did not identify any fatal flaws during the review of the Adaro optimisation process.

The Adaro mine optimisation approach is described as follows:

- The geotechnical pit design parameters are based on the geotechnical recommendation.
- The unit operating costs (“Opex”) and product revenue parameters are applied as inputs in the software to generate a series of “nested” 3D pit “shells” and related tabulation of resultant quantities and costs.
- From the Opex and revenue assumptions the indicative Breakeven Stripping Ratio (“BESR”) is determined. and,
- Select the appropriate “optimised” pit shell with an Incremental Stripping Ratio (“ISR”) less than the estimated BESR to ensure that “non-economic” coal is excluded from the pit shell.

Parameter inputs to the Adaro optimisation are tabulated in **Table 5.1**.

Table 5.1 Adaro Optimisation Input

Parameter	Unit	Pit North Tutupan	Pit South Tutupan	Pit Wara	Pit Paringin
Benchmark gCN	USD/t	85	85	85	85
Coal Quality (CV gar)	kcal/kg	4,710	4,910	3,910	4,980
Coal Price	USD/t	53.64	58.30	39.30	58.48
Costing	USD/t	37.98	48.10	32.60	43.89
Haul Distance	M	4571	55 91	4652	4712
Contractor Cost	USD/t	22.73	32.85	17.35	28.64
Operating Expenses	USD/t	5.29	5.29	5.29	5.29
Other Admin Cost	USD/t	4.99	4.99	4.99	4.99
Conversion Cost	USD/t	4.97	4.97	4.97	4.97
Fuel Price	USD/l	0.6	0.6	0.6	0.6
Geotechnical					
Pit - High Wall Slope	degree	17	17	15.0	18.0
Pit - Low Wall Slope	degree	17	17	15.0	18.0

*Source: “Table 2 Pit Optimization Parameter - Adaro Indonesia, LOM Report” 2018

During the review process, Adaro's engineering representative demonstrated to RPM the estimation process and the estimation files supporting the tabulation result. RPM has undertaken the review of the Adaro optimisation excel spreadsheet titled "Optimasi_North_r1.xlsx; Optimasi_South_Tutupan.xlsx; Optimasi_Paringin.xlsx and Optimasi_Wara.xlsx".

Table 5.2 shows the result of the RPM optimisation check of the Adaro pit optimisation. RPM is of the opinion that Adaro has followed the approach described in the report and that the selected pit shells each have an ISR which is lower than the estimated BESR.

Table 5.2 Comparison of Incremental and Cumulative Optimisation Result

AREA	OPT NAME	INCREMENTAL			CUMULATIVE		
		WASTE VOL	COAL TONNE	SR	WASTE VOL	COAL TONNE	SR
		MBcm	Mt	bcm/t	MBcm	Mt	bcm/t
North Tutupan	OPS025	169	33	5.2	1,459	415	3.5
	OPS020	668	115	5.8	2,126	531	4.0
South Tutupan	OPT010	64	9	6.9	408	83	4.9
	OPT005	446	60	7.4	854	143	6.0
Paringin	OPT015	21	3	7.7	112	20	5.5
	OPT010	21	3	8.2	133	23	5.8
Wara	OPT025	331	92	3.6	361	106	3.4
	OPT020	1,054	286	3.7	1,415	392	3.6

Adaro generally select the optimum pit shell as a basis to develop the practical pit design. RPM is of the opinion that this process is a reasonable approach in order to ensure that the design will not exceed the limit of the optimisation shell. The mineable tonnage within the practical pit shell design resulted in a total of approximately 906.1 Mt mineable coal with the stripping ratio of 4.18 bcm/t, the results of each area being outlined in **Table 5.3**.

Table 5.3 Selected Optimisation Shell

Parameter	Unit	Pit North Tutupan	Pit South Tutupan	Pit Wara	Pit Paringin	Total
BESR	Bcm/t	8.45	7.68	6.11	12.26	
Waste	MBcm	689	1,872	1,100	134	3,795
Coal	Mt	121	481	286	18.1	906.1
SR	Bcm/t	5.69	3.89	3.84	7.4	4.18
Return BESR	Bcm/t	2.76	3.79	2.27	4.86	

**Source: "Table 3 Optimized Pit Shell - Adaro Indonesia, LOM Report" 2018*

5.3 Mine Design

5.3.1 Pit Designs

Practical pit shells have been developed by Adaro for each of the mining areas. Waste dump areas have been designed and have been used as a basis of the LOM process. The practical pit is shown in **Figure 5.1**.

Key points referring to the technical design undertaken by Adaro are:

- Selected pit shells were subsequently modified to form the practical pit design, which was refined to allow practical considerations such as floor position, access restrictions and the removal of small areas that would be impractical to mine.

- The design parameters are based on the latest update of geotechnical analysis (benchmarked against field data) provided by Geotechnical and Hydrogeology Department Adaro Indonesia.
- The Tutupan pit was limited to -208mRL, or approximately 300m final depth. The Wara 1 pit was limited in depth to -160mRL. The North Paringin pit is limited to -128RL in the north of the shell, or approximately 250m in depth.

RPM is of the opinion that Adaro follows common industry processes to develop pit designs. There were no fatal flaws associated with mine planning identified by RPM during the review.

Adaro has applied the geotechnical recommendations from their internal technical department to develop the design parameters used to generate the pit designs.

The pit design parameters applied are listed in the **Table 5.4**. RPM recommends that the geotechnical assumptions that drive the LOM pit shells be periodically reviewed to ensure that the designs remain stable as the operations advance into deeper ground. RPM understands that this concern is being addressed and managed by Adaro's operational team. Adaro has applied high standard procedures for the geotechnical monitoring of the current and planned mining operation.

RPM notes that there appears to be sufficient access into the pit to facilitate efficient operations.

Table 5.4 Pit Design Slope Parameters

Geotechnical		LOM 2016			LOM 2018		
		Tutupan	Paringin	Wara	Tutupan	Paringin	Wara
Pit	High Wall	18° - 19°	17° - 18°	15°	In-Situ area 17°	17° - 18°	15°
					Cutback Area 6° with 75m counter bench		
	Low Wall	17° - 18°	17° - 18°	15°	In-Situ area 17°	17° - 18°	15°
					Cutback Area 7° with 75m counter bench		

*Source: "Table 7 Final Pit Slope Assumptions - Adaro Indonesia, LOM Report" 2018

5.3.2 Dump Designs

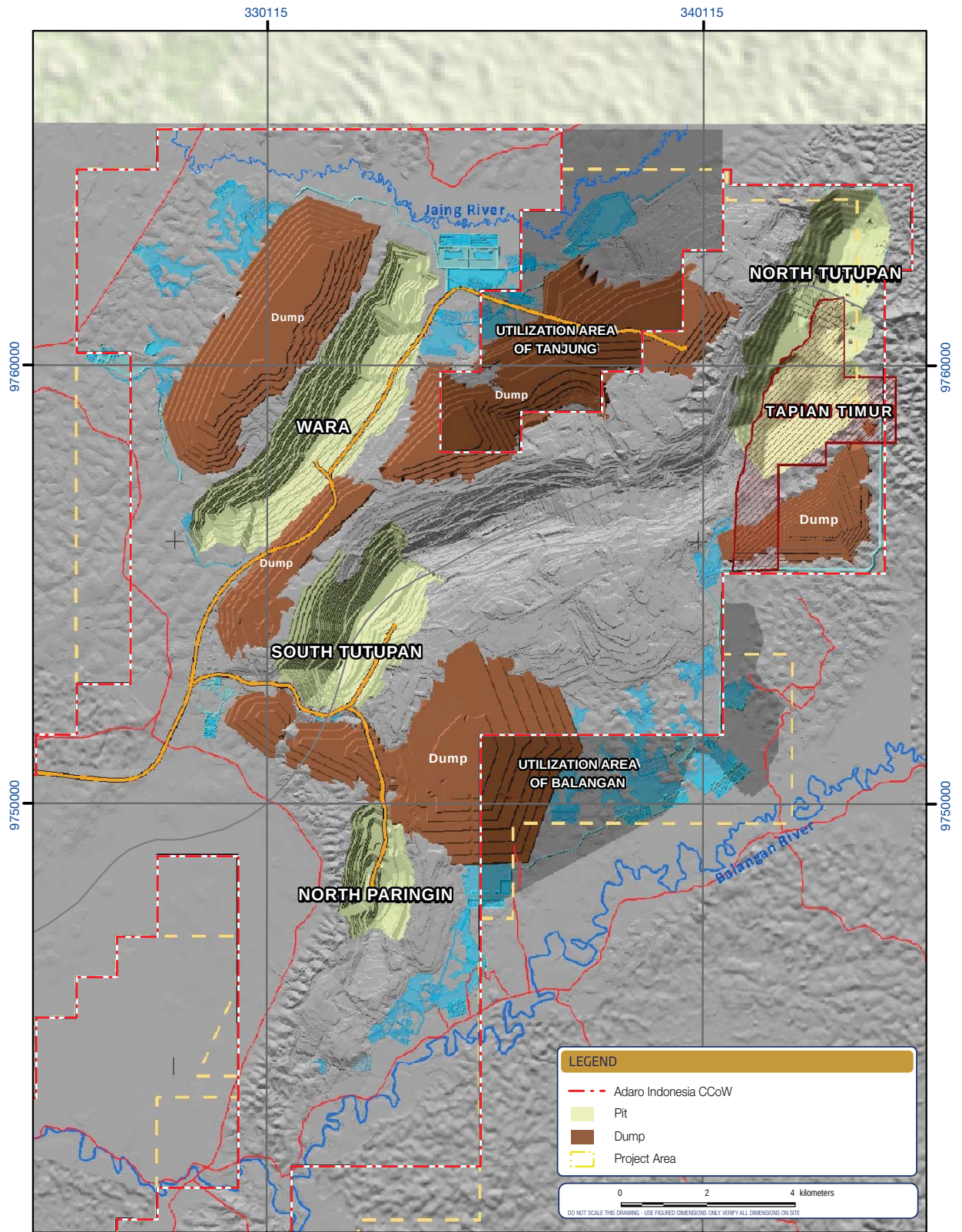
The dump design is based on 12 m vertical benches with a batter slope of 20 degrees. A 50 m berm is assumed at each 12 m lift. A limit of 110 m maximum height is achievable over the LOM. Dump stability analysis has shown either removal of underlying soft clay material, or the use of stability berms will be required in potential problem areas to achieve these heights safely. The dump designs provided for review are within this advice.

RPM understands that several parts of actual and planned expit dumps lay outside the Adaro concession boundary. Adaro has confirmed that the legal permit for dump area outside the concession is in place. RPM understands that the approach of dumping outside the concession is common in local mining practice as long as legal permits and agreements with relevant parties are in place. The design parameters applied in for dump design are listed in **Table 5.5**.

Table 5.5 Dump Design Slope Parameters

Geotechnical		LOM 2016	LOM 2018		
		Tutupan, Paringin & Wara	Tutupan	Paringin	Wara
Disposal	Toe Line Area Non Creek	8° - 9°	7° - 7.5°	5°	5°
	Toe Line Area Creek Insitu (Dry)		4° - 5°	4°	4°
	Toe Line Area Creek Ex-SP		3° - 4°	3°	3°

**Source: "Table 8 Final Disposal Slope Assumptions - Adaro Indonesia, LOM Report" 2018*



Source: PT Adaro Indonesia LOM Plan Report 2018

RPMGLOBAL

CLIENT		PROJECT	
 adaro MINING PT Adaro Indonesia		NAME INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA	
		DRAWING PRACTICAL PIT OF PT ADARO INDONESIA	
FIGURE No. 5.1	PROJECT No. ADV-JA-04019	Date September 2019	

5.4 Mining Method

Adaro Indonesia operates three large-scale open cut coal mines, mining multiple steeply-dipping thermal coal seams. The deposit is economically extracted using conventional surface mining techniques by a number of contractors, with hydraulic excavator and rear dump truck equipment used to load and haul coal and waste.

Truck and excavator mining methods allow for the required flexibility in mine sequence planning and the mining operation. To assist extraction rates approximately 70% to 90% of the overburden and interburden waste is lightly blasted, via a ~0.25 powder factor and 8 m benches.

Due to the steeply-dipping coal seams most of the overburden is placed external to the pit on both the high wall and low wall sides of the mine. In the southern area of the Tutupan pit some overburden has been placed inside the pit to backfill previously mined areas. The quantity of inpit dumping will increase as final pit depths are achieved.

The mining process involves firstly clearing the existing vegetation, consisting of primary and secondary rainforest, followed by removal of topsoil for stockpile or progressive rehabilitation areas. Waste rock is then mined by bulk earthmoving methods

The majority of coal is free dug by excavators, generally with a final low wall coal fender left to prevent any waste contamination in the coal. The final coal fender is at times mined separately to increase overall coal recovery by small excavators with flat bladed buckets.

Current mine operations are in the Tutupan, Wara 1 and North Paringin pits. The Tutupan pit has expanded to approximately 15 km in strike length, up to 1.0 km in width and 200 m in depth. To assist in operational planning the Tutupan pit is divided into a number of distinct contractor areas. In the southern area the mine contains the T100, T200 and T300 coal seams. In the Central area both the T100 and T200 series seams are mined, while in the Northern areas, the T200 series seams are the main target seams. To maintain product coal at a consistent quality, coal from all areas of the operations is blended, in particular north with south.

In the Wara 1 pit the W100, W200 and W300 are extracted; all with a lower energy content when compared to the Tutupan pit (~4,000 kcal/kg ar vs. 5,000 kcal/kg ar).

The large LOM waste quantities dumped external to pit, the pit geometry and pit depth lead to very long truck haul cycle times. For the purposes of the Coal Reserve estimation, truck shovel costing has been estimated for all areas.

The operations are undertaken by four mining contractors who are responsible for waste removal, coal mining and coal haulage to the Kelanis port. A similar truck and excavator approach to mining is undertaken at each of the four active mining pits.

The majority of unweathered waste rock is blasted and is primarily directed to surface dumps. Some inpit dumping has commenced in the central Tutupan area.

Even though the coal seams can be in excess of 50 m thick, a selective mining system, rather than bulk mining, is used to minimise the coal loss and waste dilution and maintain coal quality. This generally involves the waste rock above the coal to be bulked mined to within 0.5 m of the seam. The remaining waste is then ripped and dozed down to the seam roof. Some coal loss generally occurs at the roof of the coal seam. Due to the near-vertical nature of the seams the coal is then excavated with a smaller backhoe excavator (nominally 100 t class) with assistance from a dozer, dozing in 4.0 m slices, to within 0.25 m of the coal roof and floor. In addition to coal loss at the roof and floor coal may also be lost during the mining process (in each 4.0 m slice). RPM considers the method of coal winning to be appropriate and of a good standard.

No coal washing is required as ash and sulphur grades are sufficiently low combined with the selective mining techniques to meet the product specifications. However, RPM understands some blending of coal from the coal seams is undertaken to ensure a consistent product specific energy.

RPM is of the opinion that current Adaro mining method selection is generally the mining method that is adopted largely by open cut coal mining operations in Indonesia. RPM understands that Adaro will be able to continue the selected mining method and RPM does not anticipate that any major changes of mining method will be applied during the Life of Mine plan. However, the mining method could be changed to adapt to future technologies should they be developed and be more effective and efficient than the current mining practice.

5.5 Mining Strategy

The mine scheduling is prepared by considering the margin of the pit based on the previous optimisation result to ensure the result delivers the optimum economic outcome. The sequences have led to an increase in the production of Pit North Tutupan, while decreasing the production of Pit South Tutupan.

Strategic Planning also aims to provide the optimum sequences to avoid an imbalance to the contractor's fleet requirement. The total waste removal planned, and the waste hauling distance, are managed so that the bcm km movement is relatively stable or gradually increases/decreases, depending on the general view of the mine plan.

It is also understood that there are some key issues outlined in the mine scheduling strategy, these being described below:

- Pit North Tutupan: maintain bridge access as long as possible to minimise the waste haul distance to the low wall dump area. In 2023, the bridge access was cut due to lack of mine working space. Pit North Tutupan is planned to be mined out in 2042.
- Pit South Tutupan: a total of 128 Mbcm of re-handle materials is planned to be mined and results in a higher SR. However, Adaro will maintain relatively stable SR with a workable mine plan. A waste haulage distance above 6.5 km is not favourable as it leads to high costs and a negative margin. Pit South Tutupan is planned to be mined out in 2030.
- Pit Wara: a waste haulage distance above 6.0 km is not favorable as it leads to high costs and a negative margin. Pit Wara is planned to be mined out in 2042.
- Pit Paringin, there are no significant issues regarding the mine sequences. The pit is planned to be mined out in 2022.

The mining sequences applied by Adaro on scheduling process are detailed below:

Pit North Tutupan

Mine scheduling at Pit North Tutupan was conducted generally from south to north. Strategic Planning concludes that the bridge should be cut in 2023 and the Tapan Timur area is accessible following the pit mine sequence. Limited expit dump space will result in coal sterilization in the southern area of pit North Tutupan in 2024, to be undertaken as an in-pit dump area. Coal from Pit North Tutupan was planned to be hauled to three ROM coal stockpiles (ROM 19, ROM 13 and ROM 17).

Pit South Tutupan

Mine scheduling at Pit South Tutupan was conducted generally from north to south. The mine area also deals with re-handle material in both the low wall and high wall of pit from 2019 to 2028. The mud pond was planned to be constructed at the in-pit dump area in 2021, as mud materials from pit T300 were planned to be mined in 2022. Dumping sequences are managed to be in-pit and expit, following the mine sequence. From 2027, all waste material will be hauled to the in-pit dump. Coal from Pit South Tutupan was planned to be hauled to four ROM coal stockpiles (ROM 1, ROM 6, ROM 7 and ROM 4).

Pit Wara

The pit was divided into two panels - namely North Panel and South Panel for balancing SR beyond the 5 year plan. Mine scheduling at Pit Wara was conducted generally from north to south in both panels. The dumping sequence was planned to the expit low wall dump until 2033, while the expit high wall dump was planned from 2029 to 2033. The in-pit dump is planned to commence in 2026 with 100% in-pit dumping starting in 2034. Coal from Pit Wara is planned to be fully hauled to the ROM 3.

Pit Paringin

Mine scheduling at Pit Paringin was conducted generally from the north to south direction. The mineable coal is planned to be mined within four years and mined out in 2022. The dumping sequence was planned to be an expit high wall dump until 2020 with in-pit dumping starting in 2021. Coal from Pit Paringin is planned to be fully hauled to the ROM 1.

RPM is of the opinion that Adaro has undertaken a detailed LOM study at the level to support an operating mine level. The approach of Adaro LOM has considered a strategic mine planning, market analysis, yearly basis operating plan, including required and existing infrastructure, contractor capacity, mining sequences and dumping strategy. Details of the yearly strategy has been described in the report titled “Adaro Life of Mine Plan as at End of Year 2018”. The report provides a guidance to the 5 year plan process and continues to act as an operating manual for the Adaro mines.

5.6 In situ to ROM Conversion

The conversion of the in situ coal and waste quantities into mining volumes and tonnages is based on the mining modifying factors. These reflect the effect on the coal seam of losses caused by the equipment expected to uncover the seam, and the inclusion of contaminating roof and floor rock. The modifying factors are divided into those applicable for coal seams that are targeted to be bypassed (selective mining) and those coal seams that are targeted to be washed (bulk mining).

The cut-off parameters used were a minimum coal thickness of 1.0 m, 0.5 m and 0.5 m for Tutupan, North Paringin and Wara 1 deposits. Coal less than these thicknesses were treated as waste for the Reserve Estimate and associated cash flow analysis.

The Preston and Sanders equation was applied to convert the laboratory inherent density (air dried) to an estimate of the as received density at as received moisture. The as received moisture in this case assumed to be total moisture (TM) as modelled in the 2018 Geological model sets. The reserves were subsequently scheduled by Adaro engineers in order to determine a feasible mining schedule and dumping sequence using Minex software.

In order to simulate typical coal losses associated with mining edge, roof and floor loss, coal recovery factors were applied to in situ quantities. In order to minimize ROM contamination the current mining practice is to include nominally 0.5 m of the roof and floor of each coal seam in the waste removal. Additional coal loss is realized on the top of each coal mining flitch (nominally 0.1 m at each 4 m flitch).

Current mining practices and Standard Operating Procedures for coal clean-up attempt to minimize waste dilution or contamination. Typically fly rock from blasts and material washed onto coal from severe weather is cleaned off prior to coal loading to the ROM; coal dilution however does occur.

Coal reconciliation is currently completed monthly between ROM tonnages delivered to Kelanis (via the “Weighbridge Km 30” facility) plus stockpile inventory, against geological models using detailed surveys and polygon volumes. Total recovery planned versus actual recovery can then be assessed.

The 2017 JORC report quotes the results of reconciliation work undertaken by Adaro for the previous year. The reconciliation approach appears to be reasonable and should provide a reliable result which will allow Adaro to calibrate their models. The results of the Adaro reconciliations are shown in **Table 5.6**. Reliable reconciliation data is the best supporting evidence for the selected modifying factors for an operating mine.

Table 5.6 Adaro Reconciliation 2017

Area	Coal				Waste			
	Modeled Tonnes (Mt)	Actual Tonnes (Mt)	Actual Recovery (In situ)	Plan Recovery	Model (BCM)	Actual (BCM)	Diff	% Diff
Tutupan	37,969,514	36,609,679	96%	93%	170,614,923	170,267,638	347,285	0.20%
Wara	5,393,063	5,008,673	93%	93%	13,239,416	13,633,850	(394,434)	-3.00%
Paringin	6,261,868	6,023,814	96%	93%	41,261,605	41,349,554	(87,949)	-0.20%
Total	49,624,445	47,642,166	96%	93%	225,115,944	225,251,042	(135,098)	-0.10%

The reconciliation results indicate that the difference between the geological model tonnages and the actual mined tonnages as measured by the weighbridge ranged between 93% and 96%. This suggests that the 96% recovery factor being applied by Adaro in the LOM planning models is reasonable.

5.7 Mineable Quantity

A series of checks have been completed to confirm the reasonableness of mineable quantities provided in the report titled “Life of Mine Plan as at End of Year 2018”. The checks included RPM completing estimates of the waste and coal quantities within the provided pit shells and geological models. Cross checks were also performed between the current topography surface and the pit shells provided.

Table 5.7 shows the comparison of Adaro mineable tonnage that has been used in the financial economic model and is compared to the high-level checks completed by RPM using resource models and topography provided by Adaro.

Table 5.7 Mineable Quantity Reconciliation

Estimate By	Area	North Tutupan	South Tutupan	Total Tutupan	Wara	Paringin	Grand Total
RPM	Model Name	Model_Nttp_18a	Model_Sttp_18a		Model_Wara1_18a	Model_Paringin_2018ar	
	Schema	nttpmcm_14c	sttpsch_14a		wara1_18a	nparsch_18ar	
	Model Type	GRID	GRID		GRID	GRID	
	Quality Model	nttp_qual	sttp_qual		wqual_prox18a	q18b_npar	
	Topo	End of 2018	End of 2018		End of 2018	End of 2018	
	Pit	LOM 2018	LOM 2018		LOM 2018	LOM 2018	
	Waste (Mbcm)	1,863	698	2,561	1,086	145	6,353
	Total Coal (Mt)	490	119	610	290	21	1,530
	SR	3.8	5.9	4.2	3.7	6.8	4.2
Adaro	Waste (Mbcm)	1,716	687	2,403	1,100	134	6,040
	Total Coal (Mt)	441	121	562	286	18	1,429
	SR	3.9	5.7	4.3	3.8	7.4	4.2
Variance	Waste (%)	8%	2%	6%	-1%	7%	5%
	Total Coal (%)	10%	-2%	8%	1%	14%	7%

Close correlation has been achieved between the reported Adaro coal quantities as per the 2018 LOM and the independent estimates completed by RPM for Wara with approximately +/- 1%. However for Tutupan and Paringin the variance is higher. Tutupan has a 6% variance in waste and an 8% variance in coal tonnage. Paringin has a 7% variance in waste and a 14% variance in coal. During the reconciliation process with Adaro, RPM was informed that waste production from Paringin and Tutupan has been refined

(smoothed from year to year by strip ratio) and applied into the financial model. This approach honours total physical quantities and is not considered to materially impact on the outcomes of the financial model.

RPM has reviewed the mineable quantities based on the same geological models used to review the coal resource. These mineable quantities have been used to develop the LOM Plan (2018) and have been imported into the Financial Model.

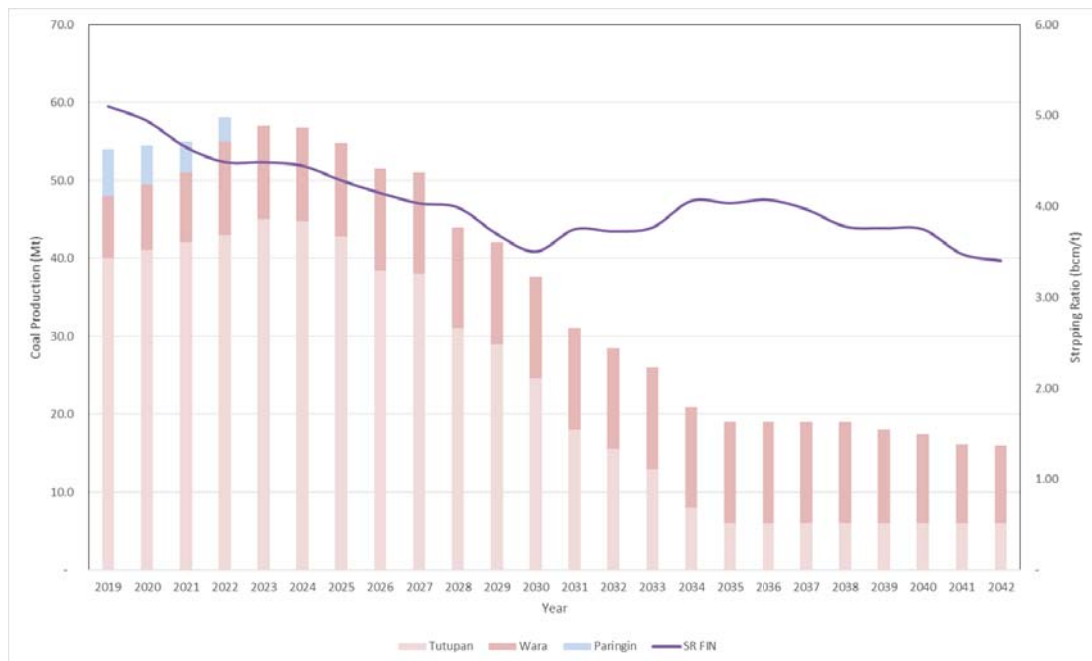
5.8 Mine Production Schedule

The mine schedule has been prepared by considering the mining strategy and targets optimising the strategic mining sequence to deliver the optimum profit. The mining sequences lead to increase the production of Pit North Tutupan, while decreasing the production of Pit South Tutupan.

Increasing coal production, with focus on maximizing profit value, is a key objective for Adaro. Adaro aims to optimize the mine schedule using accurate and measurable data parameters, so that the Life of Mine Plan has a sound basis and can be used to reflect operational and data improvements.

The Adaro LOM Mine Plan includes a steady production increase from 2019 levels of 54 Mtpa to approximately 58.1 Mtpa by 2022. **Figure 5.2** demonstrates the coal production plan and SR as per the updated LOM 2018. The Life of Mine quantities per the 2018 plan appear to be reasonable and achievable. There may be a lower tonnage, higher margin case that may deliver equivalent value to the project, and with lower risk.

Figure 5.2 Adaro 2018 LOM Plan – Production Profile



5.9 Operating Cost Estimate

RPM has reviewed the data provided in relation to the operating costs applied to the Life of Mine Plan. The primary sources of the data were the spreadsheets:

- Financial Model LOM 2018 - to RPM.xlsx; and
- Reserve Scheduling LOM.xlsx.

Over the duration of the LOM plan, operating expenditure has an average cost of USD 41.6/t ROM coal. A summary of the operating expenditure is shown in **Table 5.8**.

Table 5.8 Summary of Operating Cost

Opex Items	Unit	North Tutupan	South Tutupan	Wara	Paringin
Mining Contractor Costs	USD/t	22.73	32.85	17.35	28.64
Operating Expenses Costs	USD/t	5.29	5.29	5.29	5.29
Others and Admin Costs	USD/t	9.96	9.96	9.96	9.96
Total OPEX	USD/t	37.98	48.10	32.60	43.89

RPM has undertaken discussions with Adaro to confirm the key inputs incorporated into the economic model. The physical results of the LOM schedule (waste volume, coal tonnage and distance) are used as primary inputs to determine the production plan. During the economic model review, RPM was informed that the physical LOM input has been modified to balance the production plan and stripping ratio that is used in the economic model, as discussed in **Section 5.7**.

RPM is of the opinion that this approach is reasonable in this instance as the modifications made to mined waste have not impacted on the total quantity. RPM confirm that the modifications made by Adaro to the total coal tonnage and strip ratio applied in the financial model do not represent a significant variance. RPM recommends in future that the LOM plan specifically aligns with the financial model.

Contract rates were not provided by Adaro as part of the review, however Adaro has confirmed that the rates in the model are as per the latest contract amendments with an escalation applied to the forecast plan.

RPM has reviewed the rates provided in the economic model and makes the following comments:

- Rates appear to be reasonable compared to previous study work that RPM has undertaken for Adaro mines;
- Operating costs consider the haul distances derived from LOM scheduling. and,
- Costs have been split into the four operating mines (North Tutupan, South Tutupan, Wara and Paringin);

RPM is of the opinion that the operating costs used by Adaro in the financial economic model are reasonable and supported by an operating contract (which RPM has not reviewed). RPM cannot state whether there will be significant changes in operating cost assumptions based on future mining contracts.

RPM makes the following conclusions in relation to the mining costs provided by Adaro:

- The majority of the total operating cost relates to the mining activity.
- Mine operating costs are based on current contract rates, providing a reasonable level of certainty in the cost estimate.
- Contract rates appear to be reasonable, however RPM expects that savings could be achieved in this area through negotiation.
- RPM has verified that the rates provided in the Adaro economic model are as per the latest contract amendments for each of the mining contractors.
- Offsite costs are assumed to be relatively fixed. Estimates are based on unit rates per ROM t.

The Adaro Group subsidiary companies are involved in the entire supply chain from mining contract services and coal haulage through PT Sapta Indra Sejati and PT Rahman Abdijaya, barging contractors, ship loading and onsite power supply. Ownership through the supply chain can be expected to provide supply operation efficiencies.

5.10 Capital Cost Estimate

Adaro has undertaken a comprehensive study for the capital expenditure required to support the LOM plan. The study is compiled in the report titled "Life of Mine Infrastructure and Coal Processing Barge Loading Kelanis", dated 16 July 2019.

In the Economic Model for the LOM plan, Adaro has estimated Capital expenditure with totals USD 717.4 M over the LOM period.

The primary items include:

- Land compensation;
- Upgrade and maintenance for coal processing and barge loading;
- Allowance for mine service activity;
- Allowance for construction and maintenance of hauling roads;
- Product assembly activity;
- Project and contract management activity;
- Geotechnical;
- Crusher;
- Technical support; and
- Development of the Tapian Timur area.

RPM is of the opinion that the capital cost estimate is a reasonable basis to support an operation mines level. RPM is not aware of any significant changes on the Capex assumption in the future.

The capital expenditure requirement is outlined in **Table 5.9**.

Table 5.9 Adaro Capex Requirement

Capital Expenditure	USD (millions)
Land Management	32.8
Coal Processing & Barge Loading	252.8
Mine Services	79.0
Haul Road	351.6
Project and Contract Management	1.1
Total	717.4

**Source: "Table 16 Adaro Indonesia Capex LOM - Adaro Indonesia, LOM Report" 2018*

5.11 Revenue and Cashflow

Forecasting of long-term coal prices is not part of the RPM scope of work. It has been observed that the Adaro LOM plan has used benchmark coal prices based on USD 85/t Global Coal Newcastle price (gCN). The long-term price assumption has been taken from a third-party report that has been engaged by Adaro for this purpose.

Adaro also applied a discounted factor based on the product energy as outlined in **Table 5.10**.

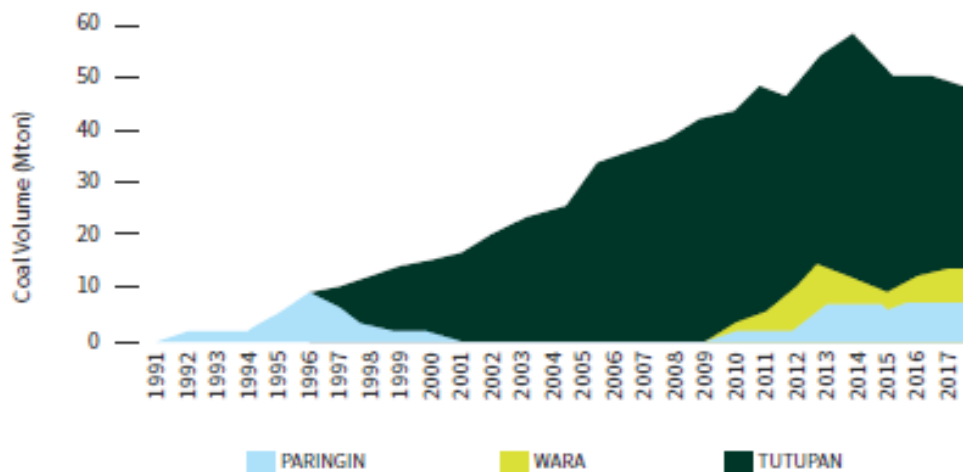
Table 5.10 Adaro Coal Discount Factor

GAR Calorific Value (kcal/kg)	gCN US\$85
5000	0%
4900	10%
4800	12%
4700	13%
4000	27%

**Source: "Table 12 Calorific Value Discount Assumptions - Adaro Indonesia, LOM Report" 2018*

All coal is currently sold under mid and long-term contracts and no coal is sold on "spot sales". Annual price reviews are held with customers and minor indexing is used. Adaro seeks a premium after taking into account the heat value of the coal, based on the low ash, sulphur and nitrogen components.

Since the commencement of mining operations in 1991, markets have expanded significantly. This growth has occurred in Asia, Europe and the Americas as well as to the domestic market in Indonesia. **Figure 5.3** demonstrates the Adaro historical sales quantity by deposit area.

Figure 5.3 Adaro Historical Sales Quantity


**Source: "Figure17 Historical Sales by Deposit - Adaro Indonesia, LOM Report" 2018*

Adaro has a diverse market for its Envirocoal products, with sales extending to approximately 56 customers in 14 countries.

Marketing strategies maintain supply and demand from customers to reduce coal oversupply. A reduction in the coal production allows Adaro Indonesia to prioritise domestic customers and premium export markets. Domestically, the national electrification program calls for a significant increase in coal-fired capacity over the next five years. The Java-Bali system is expected to double within this period.

The results of the Adaro financial model demonstrate a positive Net Present Value (NPV) for Tutupan, Wara 1 and North Paringin pits using the discount rate assumptions outlined in **Table 5.11**.

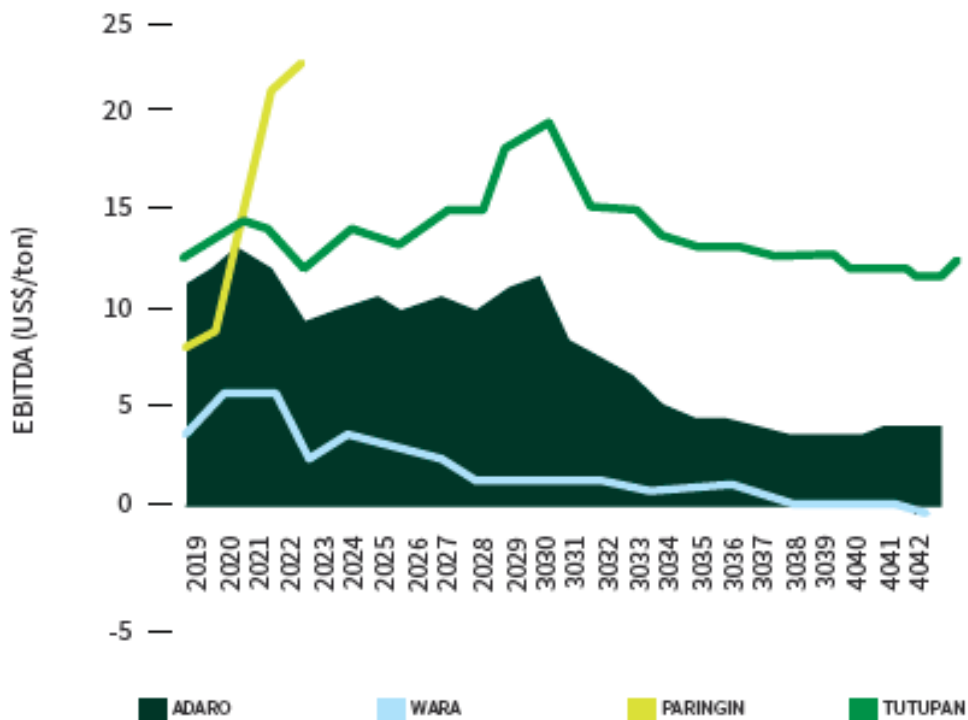
Table 5.11 Adaro Discount Rate Assumption

Adaro Weighted Cost of Capital	Total Debt	1.25
	Total Equity	1.2
	Cost of Equity	20%
	Cost of Debt	4%
	Tax	45%
	Market Return	16%
Capital Asset Pricing Model	Risk Free Rate	7%
	Market Return	16%
	Risk Free Rate	7%

*Source: "Table 17 Discount Rate Assumptions (After Tax) - Adaro Indonesia, LOM Report" 2018

Adaro has been able to demonstrate a positive operating margin over the LOM operation. The Adaro total operating margin by each area is shown in Figure 5.4.

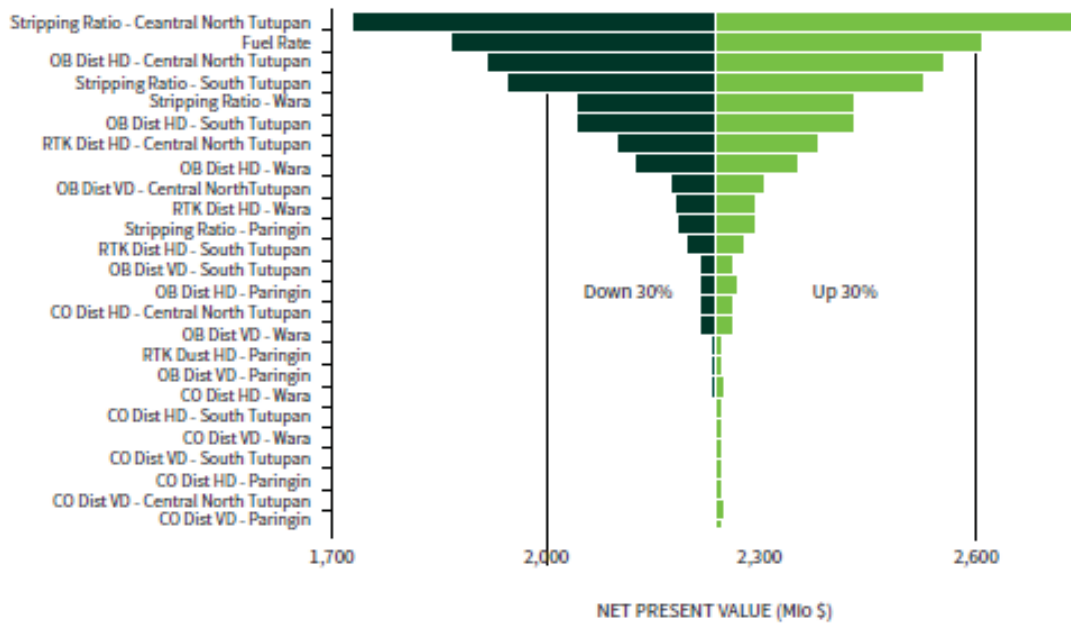
Figure 5.4 Adaro EBITDA Profile



*Source: "Figure19 Adaro Indonesia Life of Mine Cash EBITDA Margin by Deposit - Adaro Indonesia, LOM Report" 2018

A sensitivity analysis of high-level coal price, stripping ratio and haul distance has been undertaken by Adaro to complete the test of the economic viability during the Life of Mine Plan. The sensitivity analysis test has used +/- 30% ranges applied to selected variables. A positive NPV has been demonstrated, as shown in Figure 5.5.

Figure 5.5 Adaro Sensitivity Analysis



*Source: "Figure 23 LOM Valuation Sensitivity Analysis - Adaro Indonesia, LOM Report" 2018

Key points identified from the sensitivity analysis are:

- A change to the stripping ratio of North Tutupan is the most sensitive factor to change the Asset Value. Therefore, it is imperative that Adaro Indonesia continues to implement processes which limit the impact of increases in stripping ratio of North Tutupan.
- Fuel usage is the second most sensitive factor with influence on Asset Value. The long-term planning team believe significant value can be created in the medium to long-term through the implementation of fuel reduction projects.

RPM is of the opinion that the Adaro financial model follows an approach which is appropriate and common in the mining industry. The sensitivity analysis has been undertaken to test and understand the impact of change to key variables.

6. Mining Operations Review

Adaro Indonesia operates three large-scale open cut coal mines mining multiple steeply dipping thermal coal seams. The deposit is economically extracted using conventional surface mining techniques by a number of contractors, with hydraulic excavator and rear dump truck equipment to load and haul coal and waste. Truck and excavator mining methods allow for required flexibility in mine sequence planning and mining operation. To assist extraction rates approximately 70% to 90% of the overburden and interburden waste is lightly blasted, via a ~0.25 powder factor and 8 m benches. Due to the steeply-dipping coal seams most of the overburden is placed external to the pit on the both the high wall and low wall sides of the mine. In the southern area of the Tutupan pit some overburden has been placed inside the pit to backfill previously mined areas. The quantity of in-pit dumping will increase as final pit depths are achieved.

The majority of coal is free dug by excavators, generally with a final low wall coal fender left to prevent any waste contamination in the coal. The final coal fender is at times mined separately to increase overall coal recovery by small excavators with flat-bladed buckets.

Current mine operations are in the Tutupan, Wara 1 and North Paringin pits. The Tutupan pit has expanded to approximately 15 km in strike length, up to 1.0 km in width and 200 m in depth. To assist in operational planning the Tutupan pit is divided into a number of distinct contractor areas. In the southern area the mine contains the T100, T200 and T300 coal seams. In the Central area both the T100 and T200 series seams are mined, while in the Northern areas, the T200 series are the main target seams. To maintain product coal at a consistent quality, coal from all areas of the operations is blended, in particular north with south.

In the Wara 1 pit the W100, W200 and W300 are extracted; all with a lower energy content when compared to the Tutupan pit (~4000 kcal/kg ar vs. 5000 kcal/kg ar).

The large LOM waste quantities dumped external to pit, the pit geometry and pit depth lead to very long truck haul cycle times. For the purposes of the Coal Reserve estimation, truck shovel costing has been assumed for all areas.

6.1 Mining Method and Equipment

There are three main mining contractors used in the mining and coal haulage operations. Each contractor is allocated a separate area of the mine and is responsible for all overburden removal, coal mining and haulage to the Kelanis barge terminal with exception to BUMA, who outsource coal hauling activities. The use of three contractors provides diversity and maximises competition for the mining and haulage contracts.

The three contractors are:

- PT Pamapersada Nusantara (PAMA)
- PT Bukit Makmur Mandiri Utama (BUMA); and
- PT Saptaindra Sejati (SIS)

Each contractor is responsible for the supply, maintenance and servicing of all mining equipment required to complete their scope of work including drilling and blasting, pit dewatering, coal stockpiling, haul truck loading and dispatch, haul road maintenance and dust suppression. Importantly, each contractor is responsible for the supply and safety of all personnel required to complete the work. A large fleet of major mining equipment is employed by each contractor.

RPM is of the opinion that the three contractors are first tier mining contractor groups operating in Indonesia and are well-known and with solid reputations in the industry. This provides a high-level of confidence in terms of operating capability and ability to support and meet the production plan.

6.2 Historical Performance Review

6.2.1 Safety

Safety performance has several performance indicators including lost time incidents ("LTI"), lost time incident frequency rate ("LTIFR"), severity rate ("SR"), property damage and the total number of incidents. LTI cases are incidents which cause an employee not to present for work over a period of days. LTIFR is a ratio of LTI incidents compared to total man-hours in a certain period. SR is the ratio of the total of days lost compared to total man-hours in a certain period. Historical performance of mining incidents at Adaro Indonesia during 2013 to 2018 is shown in **Figure 6.1**.

Figure 6.1 Historical Safety Performance



*Source: "Adaro QHSE Mine Production Performances" 2018

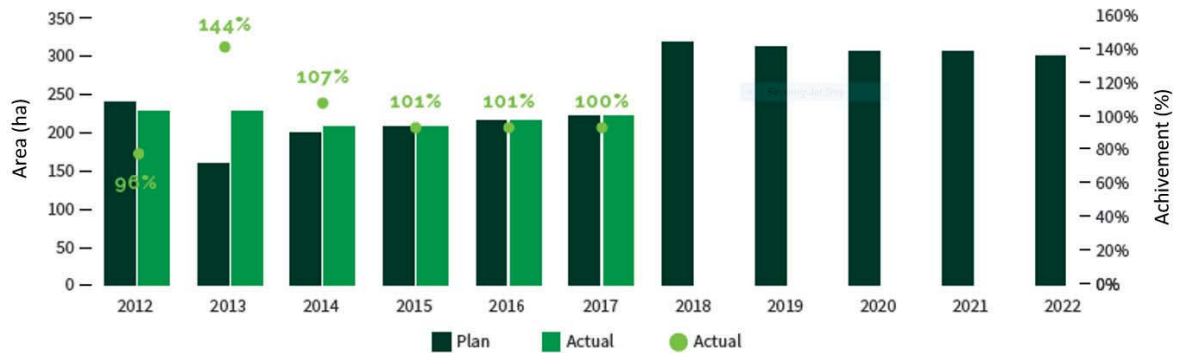
The key safety observations since 2013 are that the actual safety performance has not achieved the planned performance for LTI and LTIFR. Whilst the safety statistics have not met plan in recent years, RPM notes that there is a general trend of improvement and that Adaro is targeting zero LTIFR which is a premium international standard. It is critical for Adaro to continue to promote high safety practices to protect all site personnel, and RPM is of the opinion, based on its recent visits to the Adaro operations, that Adaro apply a high degree of focus to continually improve all aspects of safety.

6.2.2 Environment

As measured at the end of 2017, approximately 1,343 ha of land has been rehabilitated over a five-year period, with an average achievement of 108%, which is in excess of the Adaro rehabilitation plan targets. Adaro plans to rehabilitate 1,538 ha of disturbed land for the next five years commencing in 2019.

The rehabilitation plan ending in 2017 is based on the plan of reclamation guarantee (Jamrek), which was submitted to the government in accordance with MR regulation No. 26 of 2018. Adaro Indonesia is required to provide a bank guarantee as a mine reclamation guarantee (Jamrek) being of the same duration as the reclamation schedule. The guarantee must be renewed every five years, while the implementation is reviewed annually. Registered Jamrek areas cannot be re-disturbed within a five-year period in order to receive bank refunds.

Figure 6.2 Adaro Rehabilitation Plan and Achievement



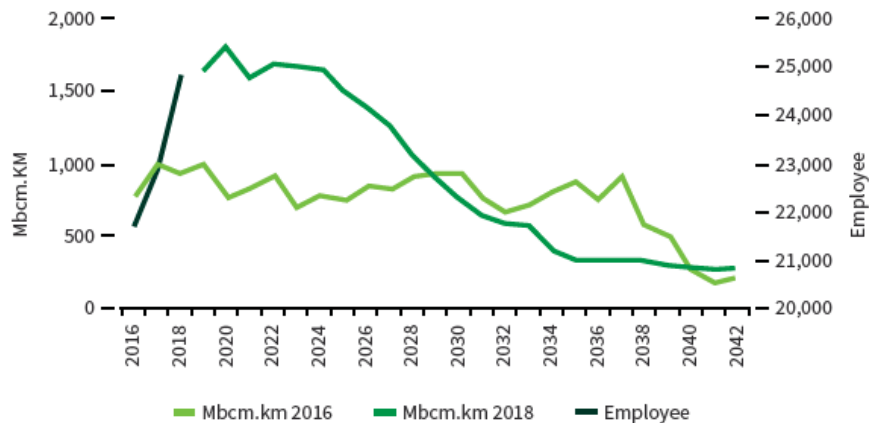
*Source: "Adaro QHSE Mine Production Performances" 2018

6.2.3 Manpower

Adaro Indonesia faces an immediate challenge during the next 5 years as the coal production is maintained at a nominal 50 Mtpa, while haulage distances increase due to expansion to full pit depth, and continued vertical lifting of the waste dumps.

In the period 2022 to 2024, Adaro Indonesia will reduce the manpower total by between 2,000 to 3,000 persons to meet the mine plan. Adaro Indonesia has assessed the current composition of manpower and has delayed the waste movement in accordance with the proportion of temporary employees. The future strategy of Adaro Indonesia is to ensure that the temporary employees, which are non-Kalimantan based, will be prioritised to be redeployed.

Figure 6.3 Adaro Work force Profile



*Source: "Figure13 LOM Workforce Requirement - Adaro Indonesia, LOM Report" 2018

6.2.4 Production

From 2014 to 2018 PT Adaro Indonesia recorded an average achievement against targets at 93% for overburden removal and 92% for coal production. Consistency in implementing Good Mining Practice ("GMP") & Keselamatan Pertambangan dan Lingkungan Hidup ("KPLH") is the key to achieving the targets. However, natural factors such as the weather or the characteristics of materials in the pit, also have a

significant effect on production, for instance Production performance during 2014 to 2018 is shown in **Table 6.1**.

Table 6.1 Adaro Production Performance

Year	Coal (MT)			OB (BCM)		
	Plan	Actual	Attainment	Plan	Actual	Attainment
2014	56,000,000	55,321,427	99%	324,000,000	324,918,834	97%
2015	53,798,000	50,351,551	94%	276,414,000	261,467,876	95%
2016	52,500,000	50,766,201	97%	250,000,000	229,302,998	92%
2017	50,000,000	47,681,437	95%	249,000,000	225,251,042	90%
2018	50,000,000	39,481,132	79%	252,000,000	210,747,199	84%
Total	262,298,000	243,601,748	93%	1,351,614,000	1,241,687,949	92%

**Note: 2018 Production until End of October*

**Source: "Adaro QHSE Mine Production Performances" 2018*

7. Surface Facilities and Infrastructure

Key Infrastructure features located within the Adaro Indonesia area of influence include;

- Pertamina Tapian Timur contains 8 active oil wells which are the subject of ongoing negotiation between Adaro Energy and Pertamina. It is envisaged that these oil wells will be deactivated by 2020 allowing the commencement of mining in this area in 2021.
- Pertamina Pipeline crosses the Tutupan and Wara 1 deposits in the North of the CCOW, which is utilised by Pertamina for the transportation of oil from the oil well locations to the Pertamina facilities in Tanjung.
- Warukin Airport which is owned by Pertamina and used mainly by Adaro and Government employees.
- Haul Roads: Coal is transported to Kelanis via a network of haul roads. The roads are chip sealed at significant expense to increase usability during periods of wet weather and to reduce the environmental impacts of dust generation.
- Public Roads: a number of public roads cross the Adaro Indonesia mining area. All heavy vehicles are isolated from public roads. There are instances where haul roads need to cross public roads requiring traffic control to ensure safety.
- Adaro subsidiary PT Makmur Sejahtera Wisesa (MSW) owns and operates 2 x 30MW power stations. Both coal and water is sourced from the Adaro Indonesia mining areas. This is managed by Adaro Indonesia operations.
- There are two high voltage (70 kV) power lines crossing the Adaro Indonesia mining area. One of these is owned by the Indonesian State Electricity Company, PLN. The other is owned by PT MSW.

A site visit has been undertaken by RPM personnel to inspect the key infrastructure assets. RPM understands that Adaro has established all infrastructure required to support the forecast plan production target. RPM is of the opinion that the infrastructure capacity and additional capital expenditure included in the Adaro financial model is adequate to support the reserve statement. RPM is not aware of any material changes for infrastructure requirements that would significantly impact the reserve estimation in the future.

Figure 7.1 shows the Adaro mine infrastructure and road network.

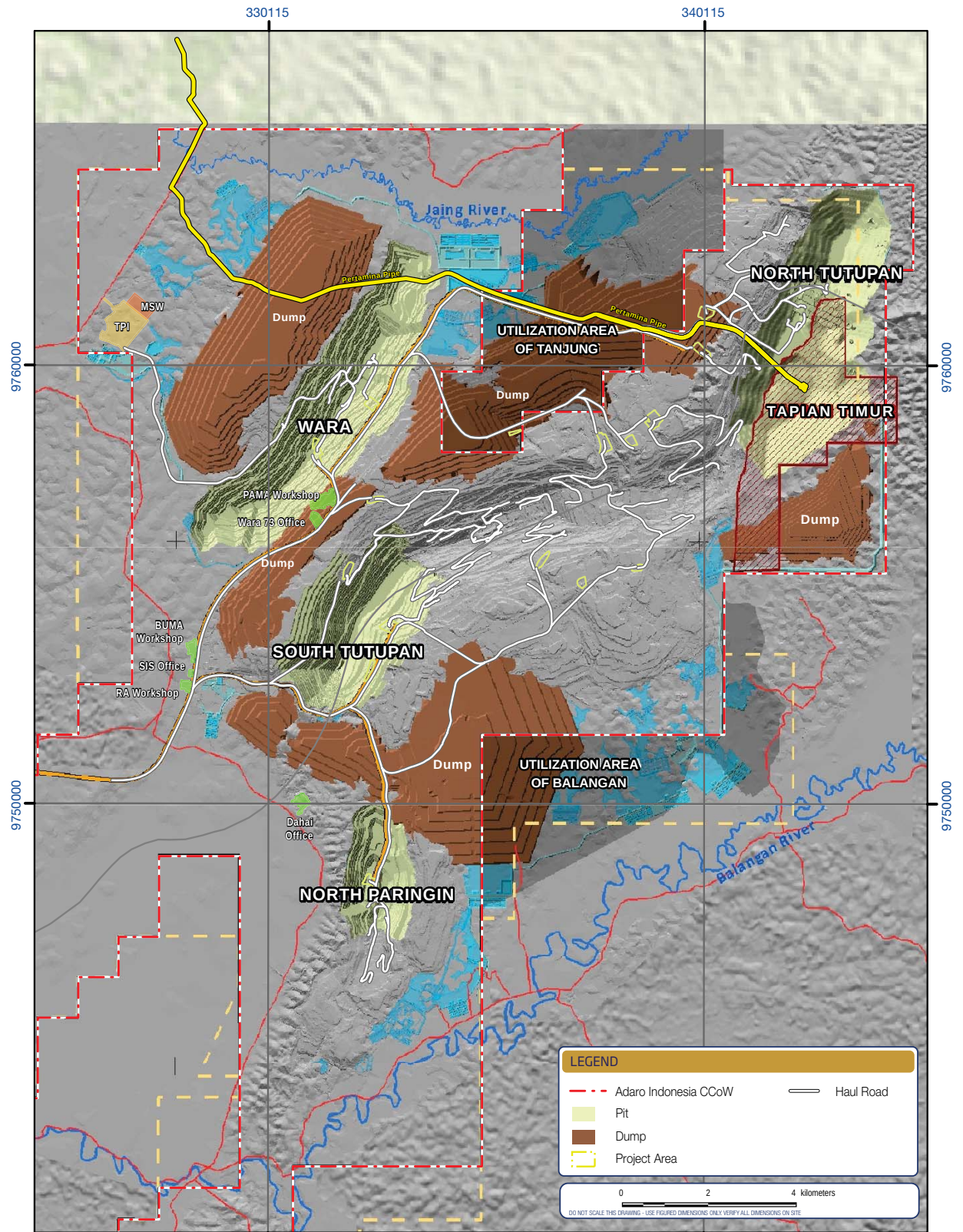
7.1 Roads

Multiple road access options for the site exist, with regional roads being in generally good condition. While the road network may be subject to some seasonal weather interruptions, these are not expected to cause any major operational problems.

The alternate access to the site is via the Barito River to the Kelanis Port and then along the all-weather chip sealed haul road to the mine. The haul road was in good condition when inspected, there being evidence of repairs to the road surface which was generally free of defects and pot holes.

Site road conditions are generally adequate, with what appeared to be sufficient road maintenance activities in place to maintain this standard. It was noted that in certain places at the input haul roads or near the dump area, roads were in poor condition. However, RPM understands that a daily inspection is undertaken routinely to identify the road segments that are in need of repair, and to allow coordination of the required repairs.

The coal hauling road, facilitating transfer of coal from the mine site to the Kelanis CHP and port facility, has an approximate length of 80 km and was in a good condition and chip sealed at the time of the inspection.



Source: PT Adaro Indonesia LOM Plan Report 2018 and Adaro Indonesia Mining Infrastructure Map

RPMGLOBAL

CLIENT		PROJECT	
 adaro MINING PT Adaro Indonesia		NAME INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA	
		DRAWING MINE INFRASTRUCTURE AND ROAD NETWORK PT ADARO INDONESIA	
FIGURE No. 7.1	PROJECT No. ADV-JA-04019	Date September 2019	

7.2 Power

Power supply to site is supplied by 2 x 30 MW power plants owned and operated by an Adaro subsidiary PT Makmur Sejahtera Wisesa (MSW). The stated motivation to develop onsite power was the electrification of Adaro Indonesia's mine operations and to reduce the dependency on diesel fuel.

When operated at full capacity, the power plant will use up to 300 kt of E4000 coal per year from the Wara mine. The power plant provides power to the mining operations and to surrounding communities.

Both coal and water to support the power plant is sourced from the Adaro Indonesia mining areas. This is managed by Adaro Indonesia operations.

7.3 Water Supply

The site has sufficient water for its requirements. RPM is not aware of water purchase agreements. The site may treat or purchase portable water for human consumption, the cost for which is not likely to be significant.

7.4 Water Management

Currently Adaro operates 16 deposition ponds in Tutupan, Wara and Paringin to cover about 14,800 ha of run-off water from disturbed areas. A pump and drainage network has been installed to deliver water from the disturbed areas for disposal into the sediment pond. In accordance with a long-term plan, Adaro has a plan to construct approximately six sediment ponds as the additional treatment facilities. These settling ponds are designed by using the predicted average rainfall data which will happen within 100 years. The maximum value is 223 mm/hour. This assumption is engaged to anticipate a 1 in 100 year event.

RPM is of the opinion that Adaro has developed a well-established surface water management plan which aligns with the updated LOM plan.

Figure 7.2 shows the Adaro final water management plan.

7.5 Buildings

The site has the expected range of buildings for material storage, maintenance, support and administrative functions. Site buildings visited were effective and in generally good condition. Maintenance facilities for the mining and haulage contractors are the responsibility of the individual contractors. RPM did not visit these facilities during the site visit.

RPM does not anticipate that significant capital expenditure will be required for site buildings.

7.6 Kelanis CHP and Port

Kelanis CHP and port has a maximum capacity of 75 Mtpa. This capacity is adequate to support the LOM production target per the updated 2018 LOM plan. During the site visit Adaro personnel demonstrated their capability of managing the coal processing, handling/stockpiling and barging activities. A discussion of the comprehensive process was undertaken with Adaro staff at the “Dispatch KM 29” facility.

The Kelanis facility includes the following:

- ROM stockpiling with total capacity of 350 kt coal product,
- 7 ROM hoppers and crushing stations,
- Two skyline tripper stockpiles,
- Underground bunker reclaim system,
- Two barge loading jetties and conveying systems,
- Coal Laboratory,
- Settling Ponds,
- Freight terminal, and
- Administration buildings.

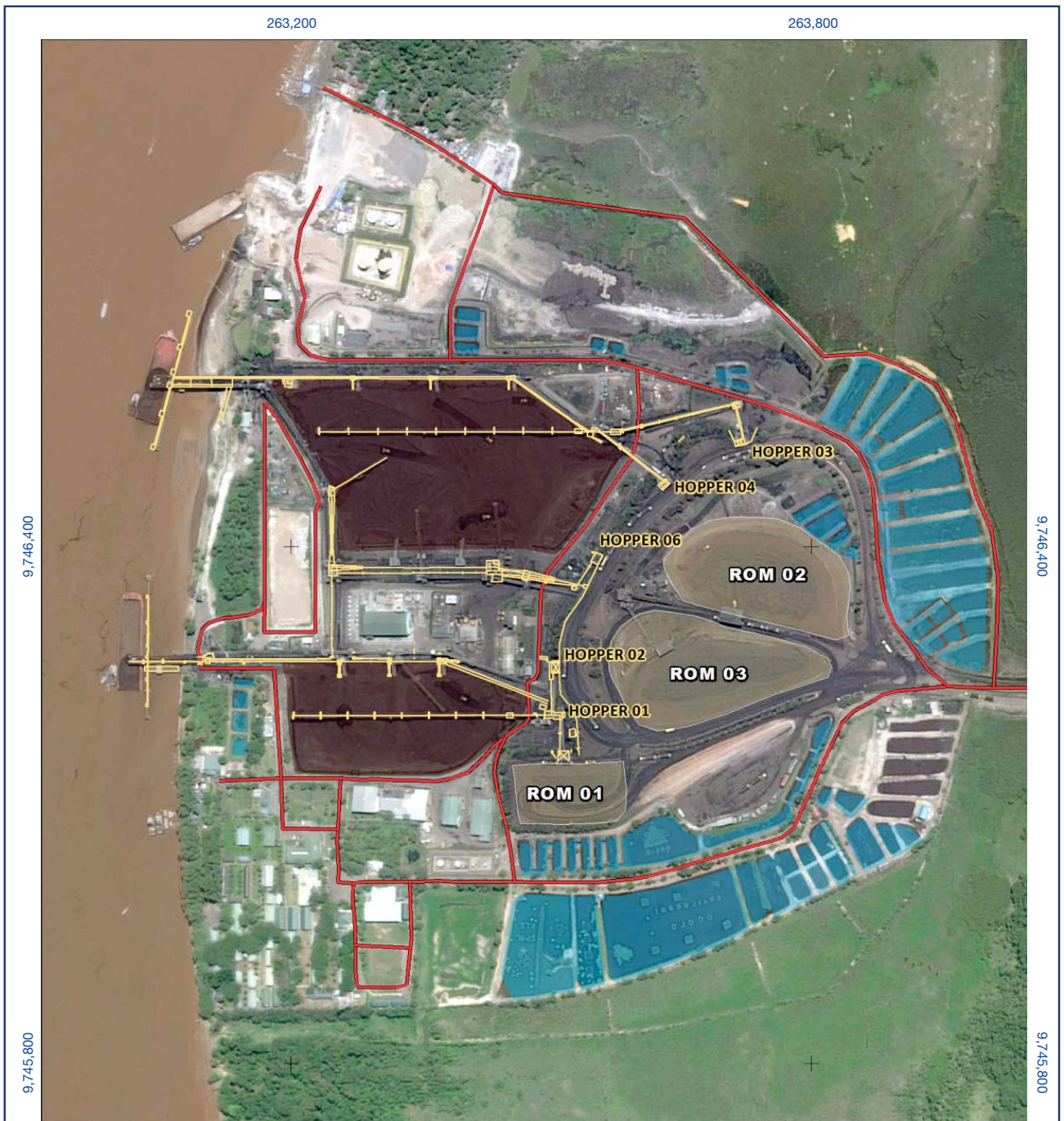
ROM coal is delivered by 138 tonne ‘B double’ highway trucks from the mine and dispatched into the Kelanis facility on an as required basis dependent on the coal quality requirements. Three ROM stockpile areas are available which are used as a buffer to the CHP. The ROM stockpile area of between 25,000 m² and 30,000 m² is small for an operation of this scale. Coal is crushed to 100% passing 50 mm through 7 three-stage crushing systems. Crushed product coal can be either directly conveyed to the barge loaders or stacked on the product stockpiles. Product coal is reclaimed from stockpiles using dozers and underground bunker/reclaim conveyors.

Discussions on the site visit suggest that product coal reclaiming is dependent on the number of products being handled. The reason for this is that the Kelanis facility is stockpile capacity constrained and the more products there are, the less stockpile capacity there is available. It appears that Adaro has a firm understanding of the facility and has completed simulations to better understand the limitations.

Due to the limited suitable land for construction at Kelanis the facility is likely to remain stockpile constrained. RPM would anticipate that Adaro will likely upgrade some of the older crushers and ROM hopper configurations

Despite this Adaro have demonstrated that they are capable of crushing and barging in excess of 55 Mt which was achieved 2014.

A plan view of the Kelanis Facility is shown in **Figure 7.3**.



Source: PT Adaro Indonesia LOM Plan Report 2018

LEGEND	
	Road
	Kelanis's Structure
	Settling Pond
	Stockpiles Area

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CLIENT		PROJECT	
adaro MINING PT Adaro Indonesia		NAME INDEPENDENT TECHNICAL REVIEW OF ADARO INDONESIA	
		DRAWING KELANIS CHP AND PORT PT ADARO INDONESIA	
FIGURE No. 7.3	PROJECT No. ADV-JA-04019	Date September 2019	

8. Risks and Opportunities

The following outlines the key Risks and Opportunities identified for the project from the technical review.

8.1 Risks

Table 8.1 presents a tabular summary of RPM's findings and conclusions relative to the completeness of the project plans based on work reviewed and the potential impact of each information component provided to RPM. These tables are intended to provide insight into the risk associated with the Project. The format is intentionally brief to provide a rapid overview of the project status. Definitions of the terms used in this table are as follows:

Component identifies the information topic reviewed by RPM.

- Completeness expresses RPM's opinion of the coverage of the topic by the client and the Project group compared to the efforts of others on similar projects.
 - High Completeness indicates that the information provided to RPM meets or exceeds the norm of similar projects.
 - Medium Completeness indicates that the Client's data meets the norm of similar projects;
 - Low Completeness indicates that the data provided by the Client is somewhat less than the norm of similar projects. This level combined with a high impact potential suggests that additional analysis and engineering are required. Combined with a low impact potential it suggests that it is probably acceptable for valuation but may require additional information for adequate reporting.
- **Impact Potential** identifies the degree of sensitivity reflected in project economics by the category. This allows rapid identification of areas that require substantial scrutiny versus those areas less likely to affect overall project performance.
 - High Impact categories, such as reserves and recovery, have a high impact on cash flow. Relatively small variations in these areas could significantly alter the return on investment.
 - Medium Impact categories, such as tailings, processing and power generation, can undergo minor to possibly medium variations without significantly affecting the overall project. Substantial variations, depending upon their nature, may significantly affect the overall project.
 - Low Impact categories, such as the majority of the infrastructure, can undergo medium to substantial variation without significantly affecting the overall project.
- **RPM Risk Assessment** combines Completeness and Impact Potential in a subjective measure of the likelihood that the category poses any significant chance of adversely affecting the overall project.
 - **Low Risk** indicates one or more of the following combinations:
 - High Completeness with High, Medium or Low Impact. This indicates that the item is critical to the success of the project, and that Adaro has performed adequate analysis and engineering to assure anticipated performance.
 - Medium or Low Completeness with Low Impact. These are typically items which do not require a substantial amount of advance analysis and engineering and whose costs are known to a sufficient level to assure that estimates are not exceeded, regardless of the final design.
 - **Medium Risk** is applied to a category where additional work is required to adequately define, analyse or engineer an item to assure that future detail development work does not uncover unanticipated problems that could substantially affect the overall project. In RPM's opinion, additional information or engineering on these components will likely be required. Medium risk indicates one of the following combinations:
 - Low Completeness with Medium Impact.
 - Medium Completeness with High or Medium Impact.
 - **High Risk** is applied to a category where additional work is required and where presently unknown and/or unforeseen problems have a high probability of negatively affecting the overall project. High risk indicates one of the following combinations:
 - Low Completeness with High Impact.

- High Impact with Aggressive Assumptions.

Table 8.1 Project Risk Analysis

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
GEOLOGY and RESOURCE MODEL				
Geology/Geologic Setting	High	Medium	Low	Sufficient work conducted. Geology of the area and the deposits appear to be well understood.
Exploration Drilling	High	Medium	Low	Drilling is adequate to define resources and provide sufficient samples for testing.
Data Collection	High	Medium	Low	Data collection is in line with industry standards.
QA/QC	High	Medium	Low	RPM completed site visit to PT. Geoservices and PT. Sucofindo and observed that both Laboratories routinely conduct QAQC work which includes equipment calibration and proficiency tests. Both Laboratories are independent and Internationally accredited.
Geologic Model	High	Medium	Low	The geologic model appears to be a reasonable interpretation of the mineralization style. Some issues were identified but coal reconciliation shows good correlation between actual and planned.
Resource Estimates	Low	Low	Low	The Coal Resource estimate was prepared at the end of 2017. No consideration of coal resource depletion due to mine production has been made since 2017.
	Medium	Medium	Medium	A wider quality Points of Observation (PoO) spacing was used in Resource Classification for a number of seams in some areas. The primary impact will be on the Measured classification for the related seams in those areas.
	Medium	Medium	Medium	RPM's review indicates that the test for the reasonable prospect for eventual economic extraction of resources has not been fully completed as stipulated in JORC Code 2012 and Australian Coal Guidelines 2014.
MINING				
Economic Pit Limits	High	Medium	Low	Adaro economic pit shells were derived by Minex Lerchs-Grossman optimization process using contract

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				mining costs, coal price assumptions, recommended total pit slope angles and relevant total mining recovery factors. LOM pit (Reserve) shells were designed based on the selected shell with adjustment made for physical constraints and/or planning constraints.
Reserve Estimates	Medium	High	Low	Approach to estimating Coal Reserves is reasonable. Statement reported in accordance with the requirement of the JORC Code (2012 Edition), The Coal Reserve does not include Inferred Resource, and is estimated based on the topography position at the end of 2017. (Note that the LOM 2018 has been updated using the topography position at the end of 2018). Coal Reserves are the subset of Coal Resources that are technically and economically viable. While the PoO spacing may lead to downgrading of primarily Measured Resource to Indicated Resource, RPM opine that this is not likely to impact the overall Coal Reserve estimate.
Coal Availability	High	Low	Low	PT Adaro Indonesia is one of the largest mining companies in Indonesia and has a long history of operating. North Parangin Pit has been operational since 1991 and Tutupan and Wara 1 commenced production in 1997 and 2010 respectively. The estimated reserve mostly comprises Proven status (even after RPM's view on the impact of PoO) which reduces project risk.
Development Strategy	High	Low	Low	The mine scheduling is prepared by considering the margin of the pit based on the previous optimization result to ensure the result delivers the optimum profit. The sequences have led to an increase in the production of Pit North Tutupan, while decreasing the production of Pit South Tutupan.

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				Strategic Planning provides the optimum sequence to avoid an imbalance to the contractor's fleet requirement. The total waste removal planned, and the waste hauling distance, are managed so that the bcm km movement is relatively stable or gradually increases/decreases, depending on the general view of the mine plan.
Coal prices	High	Medium	Medium	Whilst the coal price assumptions used by Adaro appear reasonable within the current economic climate, significant price reduction may necessarily impact short and medium-term operational decisions, such as in-pit dumping strategies and fast-tracking low strip ratio areas, and this may impact on the total available Reserves. This is a standard risk that applies to all operations and is not considered a specific risk to the Adaro operations
Mine Plans and Production Schedules	Medium	High	Low	Production schedule is considered achievable based on RPM's understanding of Adaro's recent production history.
Appropriateness of Mining Equipment	High	Medium	Low	Adaro's three contractors are first tier mining contractor groups operating in Indonesia and are well-known and with solid reputations in the industry. These contractors are able to supply the required equipment at short notice.
Contractor performance	Medium	Medium	Low	Adaro's uses three first tier mining contractor groups which operate throughout Indonesia and have solid reputations in the industry. Appropriate contractor performance is provided and supported by good contractor management from Adaro.
Mining Infrastructure	Low	Medium	Medium	All required infrastructure is in place. The Kelanis river port has a maximum capacity of 75 Mtpa. Mining, coal haulage and barging equipment is contractor supplied. However, Kelanis stockpiles hold 350,000 tonnes of coal, being approximately two days capacity.
Mine Capital Costs	High	Medium	Low	No development capital is included in the financial evaluation. Mine

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				development is included as an operating cost. Sustaining capital in real US\$ terms has been estimated from scaled historical costs. Includes allowance for land compensation, roads and bridges, buildings, Kelanis port, equipment and water management. Mobile mining equipment capital is included in contract rates.
Mine Operating Costs	High	Medium	Low	Operating costs in real US\$ terms use current contract rates (rates include ownership and margin), or the actual costs for operating the facilities. Waste and coal planning/scheduling allows estimation of truck vertical and horizontal haulage components. The current contract rate haul matrix is then applied to forecast mining costs. Contract unit rates are applied for road haulage, barging and Taboneo transshipment costs. Actual Kelanis port crushing and loading, IBT, marketing and administration costs, both onsite and offsite, are actual rates supplied by Adaro
COAL METALLURGY AND PROCESSING				
Process Flowsheet	Medium	Low	Low	The coal processing flow sheet is common to many producing coal mines in Indonesia. Kelanis CHP and port has a maximum capacity of 75 Mtpa. This capacity is adequate to support the LOM production target per the updated 2018 LOM plan
GEOTECHNICAL				
Pit Slopes	High	Medium	Medium	Adaro has applied the geotechnical recommendations from their internal technical department to develop the design parameters used to generate the pit designs. There appears to be sufficient access into the pit for efficient operations. Adaro has applied high standard procedures for the geotechnical monitoring of the current mining operations which will provide data to refine and improve geotechnical knowledge and inputs.

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
Geotechnical, wall failure	High	Medium	Medium	Adaro's focus has been on short term stability. A significant pit wall failure could have long term implications for the project in terms of remediation works to re-establish pit access, increased stripping costs to ensure stable slopes, reduced mining rates, reduced mineable quantities of coal, and delays to accessing Coal Reserves. In RPM's opinion, wall slope stability requires constant focus from Adaro, particularly with mining at increased depths.
Geotechnical, dump failure	High	Medium	Low	Although a dump failure has not been experienced at the Adaro mine sites, potential exists for this to occur. Such event could cause disruption to mining operations for an extended period of time, and lead to a reduction in planned dump height. If the dump height is limited due to geotechnical reasons then there may not be sufficient dump capacity at the mine. Under this scenario alternate mine plan options would be required that target smaller pit shells operating at higher operating costs or generate more in-pit dumping potentially sterilising Reserves.
PERMITTING, ENVIRONMENTAL, SOCIAL and COMMUNITY				
Environmental Social Impact Assessment and other documentation	Medium	High	Medium	Environmental approvals and permits are in place for up to 80 Mtpa of coal production from three pit areas, including the location of external dumps and mine infrastructure outside of Concession area.
Mining Permits and Authorizations	Medium	High	Medium	The Adaro CCoW expires in 2022. Extension or potential changes to the contract now become a high priority issue for Adaro in order to ensure the continuity of coal supply from the Adaro operations. Government intervention and/or social issues that prevent access to coal resource can impact productivity and mining costs and therefore, could impact the economic viability of Coal Reserves
Land Compensation	High	Medium	Medium	Increases in land compensation expenses and delays to land compensation could result in

Component	Complete-ness	Impact Potential	RPM Risk Assessment	Remarks
				increased mining costs and reduced access to Coal Reserves.
Other Government Permits	High	Medium	Medium	The inability to gain required forestry permits and to not be able to dump outside of the mine lease would result in significant dumping constraints and ultimately increase haul distances, and, subsequently, increase mining costs.
Environmental	High	Medium	Medium	Adaro management must ensure environmental management plans are maintained according to the terms of the environmental permits and approvals. These include ARD, surface water and discharge and rehabilitation management plans. In addition, Adaro management must ensure that sufficient monitoring is in place to avoid non-compliances and that monitoring plans are submitted to the Central and Provincial Authorities quarterly with Authority inspections twice a year. Failure to do this may jeopardize mining rights to the deposit and access to Coal Reserves.
Reclamation/Closure	High	Medium	Medium	As measured at the end of 2017, approximately 1,343 ha of land has been rehabilitated over a five year period, with an average achievement of 108% of the plan. Adaro plans to rehabilitate 1,538 ha of disturbed land during the next 5 years commencing in 2019. The plan for future rehabilitation is submitted annually to the government and includes an estimate of rehabilitation costs. Adaro include the cost of rehabilitation in their annual operating budget.

9. Conclusions

Adaro Indonesia operates mature operating mining assets that are based on the mining of three deposit areas; Tutupan, Wara 1 and North Paringin. RPM did not identify any significant issues that would prevent successful mining and processing of the coal. RPM is of the opinion that overall, the geological models and interpretations, including underlying data, is reasonable, and therefore can support Coal Resource and Reserve evaluation. This has been supported with the good reconciliation of both quantity and quality data between planned (the models) and actual mined data.

Coal Resource classification for most of the seams are reasonable. However, some issues relating to quality data distribution in some seams was identified. This may result in the downgrading of some seams particularly from Measured into the Indicated category.

The Coal Resource estimation parameters that were used by Adaro are, in most cases, acceptable. RPM's review indicates that the test for the reasonable prospect for eventual economic extraction of resources has not been fully completed. RPM believe that this is likely to have an impact on the reported Resources and recommend that future Coal Resource Estimates include the full application of assumptions to test the reasonable prospect for eventual economic extraction.

Adaro has undertaken a detailed LOM plan at an appropriate level to support the operating mines. There were no fatal flaws identified by RPM during the review of the LOM plan.

RPM has completed a technical review of the mining plan and accompanying data and are of the opinion that the Coal Reserves are estimated in accordance with the requirements of the JORC Code (2012 Edition).

Appendix A.

Adaro Coal Reserves – Table 1 JORC Checklist

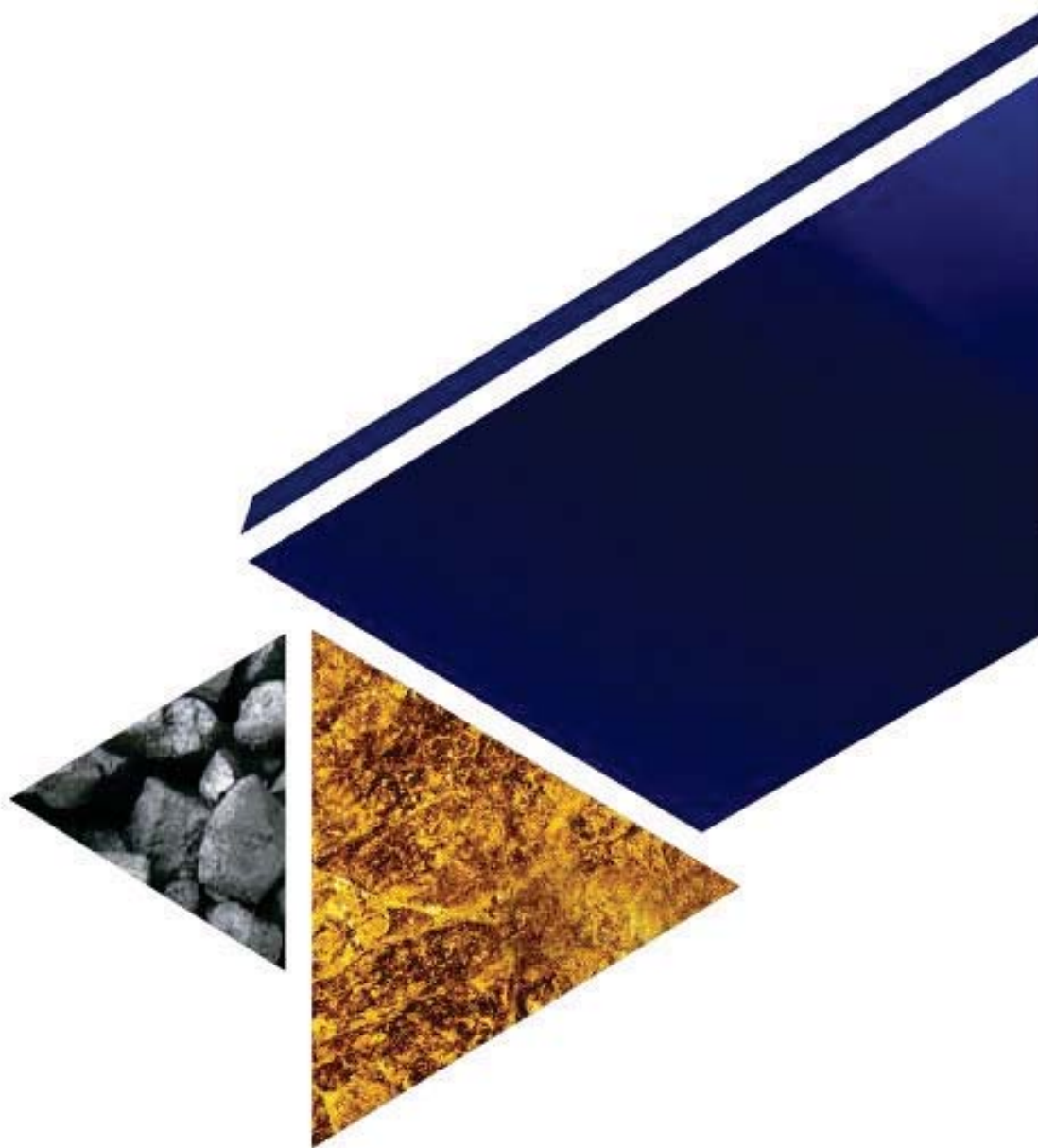


Table A.1 Adaro Table 1 JORC Code Checklist

Criteria	Explanation	Comments
Mineral estimate conversion Reserves to Resource for Ore	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve	The January 2018 (18a) structural and quality model was used; with updated 2018 Resource polygons applied. All planning was completed on the 18a models. The 18a polygons represented an improved geological (quality) confidence from 2014 to 2018 exploration. The 2018 Statement of Resources was prepared in accordance with the JORC Code by Mr. Yansen Palobo, Reserves and Modeling Section Head, Adaro Indonesia.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves	Coal Resources are inclusive of Ore Reserves
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits	Regular visits are made to site by Mr Rifan Ahda. As such, Mr Rifan Ahda has a good understanding of the deposit and the validity of assumptions used in this Reserve Estimate.
	If no site visits have been undertaken indicate why this is the case.	See Above
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves	All Reserve based on 2018 Life of Mine Plans, which have been subject to appropriate financial evaluation.
	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	Operating plans (including 5 Year Plan) are considered equal to, or better than Pre-Feasibility Study level; especially given history of operating. North Paringin Pit has been operational since 1991 and Tutupan and Wara 1 commenced production in 1997 and 2010 respectively. These Life of Mine plans are considered technically achievable and economically viable.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	Positive margin coal, which has been derived by Lerch-Grossman optimization, detailed pit design, mine planning and financial evaluation.
Mining factors or assumptions	The method and assumptions used as reported in the Prefeasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).	Economic pit shells derived by Minex Lerch-Grossman optimization process using contract mining costs, coal price assumptions, recommended total pit slope angles and relevant total mining recovery factors.
		LOM pit (Reserve) shells then designed by adjusting for physical constraints (resource limits, surface constraints - drainage lines, inhabited areas), or by planning constraints access requirements, pit depth limits, pit floor smoothing, dump balance requirements). Reserve shells sit within economic shells as defined by Minex Lerch-Grossman optimization.

Criteria	Explanation	Comments
		- In situ reserves, divided into geological resource categories, then estimated within Reserve shells and clipped to topography models as at 31st December 2017. In situ quantities and qualities then adjusted for mining loss, dilution and moisture to produce and estimate of Run-of-Mine (ROM) as received Reserves. - Preston and Sanders equation used to convert RD (ad) to an estimate of RD (ar), using total moisture as an estimate of as received moisture.
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	Conventional strip mining using diesel hydraulic excavator and rear dump trucks is considered appropriate. General design, mine sequencing, scheduling and operating assumptions considered appropriate. LOM production rate increases from 2019 levels of 54Mtpa to 58.1Mtpa by 2022. Waste dump scheduling utilises available dump space to 100m height limit.
	The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.	Low wall total batter = 14° - 15° for Tutupan, 15° for Wara 1 and 17° for North Paringin respectively. High wall batter = 14° - 18° for Tutupan, 14° for Wara 1 and 13° for North Paringin respectively. Ongoing infill drilling, inpit sampling and quality control program.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	The "Sttpschr_18a", "Ntppmcm_18a", "Wara1_18a" and "Npar_sch_18a" Minescape geological models were used as the basis for the Life of Mine schedules.
	The mining dilution factors used.	As-received tonnages have been adjusted to account for 2017 production reconciliation results. Historical, it has not been necessary to adjust modeled qualities as per reconciliation results as variations are typically within specification limits.
	The mining recovery factors used.	For the purposes of scheduling, last year's reconciliation were used to model mining recovery. This equates to total recovery by tonnage of 96%, 93% and 96% for Tutupan, Wara 1 and North Paringin respectively. These recovery factors are similar than current reconciliation results. We use mining recovery 96% for reserving all pits.
	Any minimum mining widths used.	Life of Mine schedules have considered working room of approximately 30,000 square metres per excavator.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion	Inferred Coal Resources are excluded in the pit shell quantities when assessing financial viability. Further on Inferred Coal Resources category converted as waste when assessing financial viability.
	The infrastructure requirements of the selected mining methods.	All infrastructure is in place. Mining, haulage and barging equipment is contractor supplied.

Criteria	Explanation	Comments
Metallurgical or assumptions factors	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	Unwashed product, no processing, except crushing, screening and blending at Kelanis port.
	Whether the metallurgical process is well-tested technology or novel in nature	Kelanis facility well-tested
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied	No processing
	Any assumptions or allowances made for deleterious elements.	No processing.
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole.	No processing
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Yes; average scheduled coal quality meets marketing specification over LOM.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Environmental approvals and permits are in place for up to 80Mtpa of production from three pit areas, including location of external dumps and mine infrastructure outside of CCA area. Water management and monitoring ongoing. Waste Acid Rock Drainage (ARD) analysis ongoing. Existing ARD management strategy treats discharge water and dry covers Wara 1 waste dump (assumed 30% of waste Potential Acid Forming).
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure	All infrastructure is in place. The Kelanis river port is Currently is 64 Mtpa. Mining, haulage and barging equipment is contractor supplied.

Criteria	Explanation	Comments
	can be provided, or accessed.	
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study	Development capital is included in financial evaluation. Includes allowance for land compensation, roads and bridges, buildings, Kelanis port, equipment and water management. Mobile equipment capital included in contract rates.
	The methodology used to estimate operating costs	Operating costs in real US\$ terms forecast using current contract rates (rates include ownership and margin), or from current facility costs. Waste and coal scheduling produced truck haul vertical and horizontal components. Current contract rate haul matrix then applied to forecast mining costs. Contract unit rates applied for road haulage, barging and Taboneo transshipment costs. Actual Kelanis port crushing and loading, IBT, marketing and administration costs, both onsite and offsite assumed.
	Allowances made for the content of deleterious elements.	Included as dilution. No coal price discount made for ash and CV adjustment. Not material.
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	Long term price forecast assumed LOM.
	The source of exchange rates used in the study	Coal price and costs estimated in US dollars.
	Derivation of transportation charges.	Coal ROM rehandle, road haulage, crushing, barge loading, barging cost from current contract rates, or actual facility costs.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	An estimate of demurrage included. No price penalties assumed.
	The allowances made for royalties payable, both Government and private.	13.5% royalty applied
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Global Coal Newcastle Index Price of US\$85/t assumed LOM for strategic financial modeling. Price reduced by year on year energy content and additional coal discount market factor.
	The derivation of assumptions made of metal or commodity price(s), for the	As above

Criteria	Explanation	Comments
	principal metals, minerals and co-products	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	Since the commencement of mining operations, markets have expanded in Asia, Europe and the Americas as well as to the domestic market in Indonesia. Marketing strategies is maintaining supply and demand from customers to reduce coal over supply and straighten domestic market as government program to build new power plant.
	A customer and competitor analysis along with the identification of likely market windows for the product.	Sales are currently maintained to approximately 40 customers in 16 countries. Competitor analysis has been completed by Wood Mackenzie in the development of Price forecast models.
	Price and volume forecasts and the basis for these forecasts.	The price assumptions are a consensus view of internal expectations and analyst forecasts. The price forecasts used are consistent until end of LOM as US\$85/t.
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Not required
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	Appropriate discount rate, tax rate, and depreciation. Costs in real terms, escalated. Single long term price forecast, adjusted for energy and market factor. Price considered reasonable given analyst long term price forecasts.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	High level sensitivity run on low margin Wara 1 pit with ~\$2/t margin. Pit sensitive to changes in coal price assumption, strip ratio changes (lower total pit batter angles, reduced coal recovery) and waste hauls (longer haul via waste dump height limits, land compensation and general waste dump room issues). Minex produced various tonnage estimates for various price factors.
Social	The status of agreements with key stakeholders and matters leading to social license to operate	All permits and licenses in place. Further land acquisition required; reasonable expectation land access agreements can be completed.
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	No impact
	Any identified material naturally occurring risks.	Geotechnical risks
	The status of material legal agreements and marketing arrangements.	All coal is currently sold under mid and long term contract, no coal is sold on "spot sales". Annual price reviews are held with customers and little indexing is used.

Criteria	Explanation	Comments
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	1st Generation Coal Co-operation Agreement (CCA) between Adaro and Government of Republic of Indonesia. Expires 2022, rights exist for 2 x 10 year extension. Reasonable grounds to expect extension will be approved and existing operating approvals maintained. Required Pinjam Pakai (Borrow Use) forestry permits in place.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	Proven (from Measured Resource Category) Coal Reserves have been estimated using points of observation up to 500m apart. Probable (from Indicated Resource Category) Coal Reserve has been estimated using points of observation up to 1,000m apart.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	Yes
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	0%
Audits or reviews	The results of any audits or reviews of Ore Reserve Estimates.	There are no audit have been done to this report. Some independent audit and review must be conducted for Coal Reserves on behalf of customer due diligence before it becomes a public report.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve Estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate	Given historical production and geological knowledge a high level of confidence that the Coal Reserves as stated will be realized, given currently assumed coal price, operating costs and pit and dump designs. The key factors that could affect future Coal Reserves are future coal price and operating costs (both from input costs and mine plan derived factors) and geotechnical factors, which could lead to a lowering of dump heights and flattening of low wall and high wall batters.

Criteria	Explanation	Comments
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	Global estimates
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	Historical results from reconciliation show mining recovery is following a decreasing trend, however, the 2017 reconciliation results show an improvement in mining recovery performance which is a key modifying factor.
	It is recognized that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Reserve total mining recovery has been adjusted according to 2017 production reconciliation results. As received qualities have not been adjusted.



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US\$750,000,000

4.25% Guaranteed Senior Notes due 2024