Client:
Standard Chartered Bank
1 Basinghall Avenue
London
EC2V 5DD

Consultancy Services

Verification Report for Standard Chartered Bank

Ref: GDP463
Issue: 02

Global Documentation Ltd
Quintia
Courtlands Way
Worthing
BN11 5QU

Prepared By:	A.Ledwith	Date: 25/01/2023 – version 2
Issued By:	M Meijer	Date: 25/01/2023

Contents

Verification Report of Standard Chartered's 2022 Global Carbon Report Prepared for Standard Chartered plc by Global Documentation

5th January 2023

1.0 INTRODUCTION

Each year Standard Chartered plc (SC) publishes its Sustainability Report, to include data relating to its carbon emissions, water consumption & waste generation. This data is collected, calculated & produced internally.

Global Documentation was tasked to provide independent assurance (limited level) for the reporting period 1st October 2021 to 30th September 2022 on the following information:

- Carbon emissions: Scope 1 (combustion of fuels: gas and diesel) & Scope 2 (purchased electricity, heat, and cooling) from buildings, given in tonnes of CO_2e.

This report & Verification Statement gives an overview of the findings of the project to verify the data presented. We have conducted our verification in accordance with ISO 14064-3 (Guidance for the verification and validation of greenhouse gas statements).

The reporting criteria used by SC was their 'Carbon Emission Criteria 2022', which explains the overall processes used for calculating all carbon emissions (including travel that is not covered by this verification project). A detailed methodology for this project (explain data collation and comprehensive calculations) does not exist.

All data is presented in the spreadsheet '**2022 Global Carbon Report (IEA 2022)**' showing detailed primary data on premises & energy/carbon and results by country. A further spreadsheet "EE Dashboard - Sept (EY2022) - IEA 2022", also shows primary data and also a RAG status against country targets.

Initial discussions had been previously held to understand the boundaries of the assessment (offices, branches) & activities (energy from electricity, gas and diesel).

The organisational boundary of the project covers SC's significant sites, denoted 'GEMS' (sites included in the Global Energy Management System) and also smaller sites (less than 10,000 ft^2 'non-GEMS'), for activities where SC has 'operational control'. Thus, this project covers buildings' operations only, no transport, fugitive or other associated emissions.

149 GEMS sites and 691 non-GEMS sites were included in the assessment, covering 63 countries within the three main regions: AME - Africa & Middle East; ASIA - Asia; EA - Europe & Americas.

Data has been collected for GEMS and non-GEMS sites & recorded in a central reporting system. This shows monthly data for energy (depicting if electricity [renewable, non-renewable], gas, diesel etc), waste and water.

Evidence had previously been uploaded onto Credit360 to support the figures provided, e.g., invoices, spreadsheets of meter readings etc. With new arrangements this year, the evidence files are now held by the two agencies providing facilities support: CBRE for ASIA and JLL for

AME and EA. Required evidence was identified and copies requested for the verification of the data presented.

Data for many non-GEMS sites is recorded with little supporting evidence available due to less operational control there.

While every effort is made to gather data for each site, not all sites actually have reported data for energy; this is particularly evident for non-GEMS sites (86 sites). Thus, extrapolation is made to ensure under reporting is not done. Extrapolation calculations are made using floor area of reported sites and compared to total floor area of all sites (i.e. total reported data divided by reported sites floor area, times by total sites floor area). This ensures a country covers all its sites.

Countries where no sites at all have data are termed 'non-reporting countries and data is extrapolated from the whole estate.

The verification process covered:

- Identification of key sites, regions and countries material to overall totals for data examination
- Comparison of figures given in "Global Carbon Report' and "EE Dashboard" spreadsheets against primary data
- Identification of evidence held by CBRE and JLL to support figures given
- Review of carbon calculations methodology and formulae
- Checking of emissions factors used (UK factors for gas, diesel etc) and international factors for electricity
- Queries relating to data completeness and errors, supporting evidence and calculations
- Identification of proportion of sites with no data provided, requiring extrapolation
- Understanding of sites from the termed 'non-reporting countries', also requiring extrapolation
- Review of methodology and formulae for extrapolation of missing data.

Key personnel within in the project included:

- Darren Sear – SC – Head of Engineering, Energy and Environment
- Taby Joshua Abraham – SC (CBRE) – Senior Manager - Energy & Environment – covering ASIA sites
- Matthew Draper – SC (JLL) - Energy & Sustainability Analyst - covering AME & EA sites
- Anya Ledwith – Eshcon / Global Documentation – data verification

Documents provided:

• 2022 Global Carbon Report	v1	received 28.11.22
	v2	received 5.1.23
• EE Dashboard 2022	v1	received 28.11.22
	v2	received 5.1.23

2.0 CARBON EMISSIONS

Scope 1 & Scope 2 carbon emissions arising from energy in buildings, for the reporting period 1st October 2021 to 30th September 2022 amounted to **49,434 tonnes of CO_2e.**

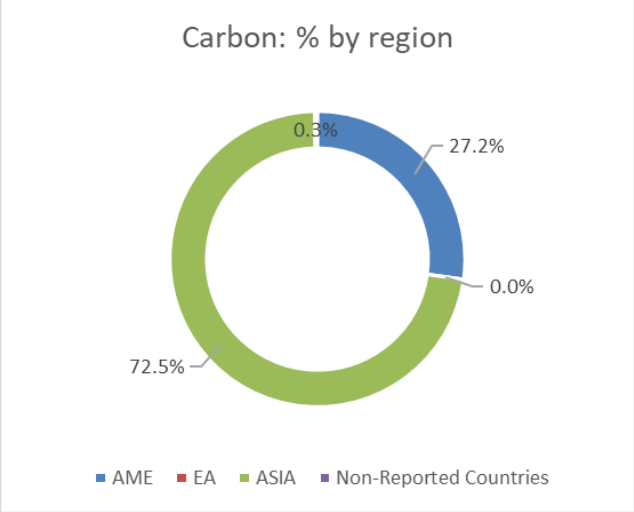
Carbon emissions are categorised as: Scope 1 emissions – combustion of fuels (gas and diesel); and Scope 2 emissions – purchase of electricity, heat, and cooling. Fugitive emissions (e.g., from refrigerant gases) are not included. Scope 3 emissions are not included within this assessment.

Initial data shows location-based emissions. The 'Reported Data after EAC' columns show market-based emissions following green electricity and offsetting (through purchase of Energy Attribute Certificates 'EAC') are taken into account. Location-based emissions amounts to 84,840 tCO_2e (or 86,382 tCO_2e including extrapolated data).

Table 1 – Scope 1 & 2 Carbon Emissions (tCO_2e)

Emissions in tCO_2e	*GEMS*	*GEMS*	GEMS	*Non-GEMS*	*Non-GEMS*	Non-GEMS	Extrap-olated		
Region	*Scope 1 Data*	*Scope 2 Data*	Reported Data after EAC	*Scope 1 Data*	*Scope 2 Data*	Reported Data after EAC	Data after EAC	Total	%
AME	*1,358.4*	*8,750.3*	**10,108.7**	*352.4*	*2,688.6*	**3,041.0**	299.0	**13,448.7**	27.2%
EA	*0.5*	*1,474.1*	**0.0**	*31.7*	*49.5*	**0.0**	0.0	**0.0**	0.0%
ASIA	*490.0*	*51,509.3*	**24,844.0**	*76.0*	*18,058.9*	**10,377.4**	618.9	**35,840.2**	72.5%
Non-Reported Countries							145.1	**145.1**	0.3%
Total	***1,848.9***	***61,733.7***	**34,952.7**	***460.1***	***20,797.0***	**13,418.4**	**1,063.0**	**49,434.0**	
%			71%			27%	2%		

Figure 1 - Scope 1 & 2 emissions, by region



Not all sites reported data. For these sites, emissions are extrapolated using the reported data compared to floor area (as explained above). Total extrapolated emissions (1,063 tCO_2e) account for 2% of total emissions (approximately the same as last year).

96% of location-based emissions arise from Scope 2 reported data (electricity consumption); with extrapolated emissions likely to be mostly Scope 2, then total Scope 2 will be 97% of emissions. Relatively few sites use gas, and diesel is used in small quantities (e.g., for back-up generators and some sites for heating), so Scope 1 emissions comprised just ~3% of total emissions.

73% of emissions arose from ASIA.

Emissions have fallen by 42% (85,662 tCO_2e in 2020-1), much of this has been due to the increased purchased of renewable energy and EACs. Overall energy usage has fallen slightly by 3% overall.

2.1 Data Quality

In terms of completeness of data, 46 active non-GEMS sites provided no data (6%). For sites with no data, emissions are extrapolated using floor area (total reported emissions divided by sites reporting data, multiplied by total floor area). This is a reasonably methodology to ensure a truer picture is given of total emissions, although separating out by GEMS/Non-GEMS and Scope 1/2 would be more accurate.

Of the GEMS data reported, 107,557 MWh or 80% was checked, using a sampling approach, focussing initially on larger sites across a range of countries and regions. This sampling has previously used emissions as the first filter; given the increasing purchase of green electricity, this year the filter chosen was kWh energy used. This therefore identifies better the larger and significant sites in all regions.

Data quality for GEMS was overall good with evidence provided (e.g., electricity invoices, spreadsheets with meter readings or summary of kWh used for a range of sites). The quantity and quality of the evidence provided has improved this year.

Evidence for ASIA sites was generally better and more promptly provided. A number of sites in AME and EA were still waiting for data, gave estimated figures or the calculations were not explained.

Of the 96 sites checked, 68% had good data and adequate evidence provided; 27% had queries (e.g., no evidence initially provided, minor anomalies with figures) which were easily rectified; a further 5% had queries that were not rectified in time.

At some sites, evidence was not given as bills, but calculations of consumption based on floor area. Each site or country provided monthly info for these, so evidence was deemed sufficient.

Evidence for electricity & gas was better than for diesel, which was often estimated (although generally low quantities and will not make a material difference to carbon calculations).

Some anomalies were initially found during the initial data review and queried. Many items were corrected. In some cases, there had been a missing month's figure in the data dump provided – since then, the figures had mostly been updated. Thus, anomalies were cleared.

Table 2 – Carbon data verification

GEMS	No. sites	No. sites checked	MWh checked	tCO_2e checked
AME	38	17	20,333	7,675
EA	7	3	8,928	0
ASIA	104	55	78,297	15,587
Total	149	75	107,557	23,262
% of total checked		50%	80%	67%
Non-GEMS				
AME	113	0	0	0
EA	8	0	0	0
ASIA	570	21	2,600	1,183
Total	691	21	2,600	1,183
% of total checked		3%	6%	9%
TOTAL	**840**	**96**	**110,158**	**24,445**
% of total checked		11%	62%	51%

Of the Non-GEMS data reported, 2,600 MWh or 6% was checked, using a sampling approach, focussing on larger sites.

2.2 Carbon Calculations

The calculations of the Scope 1 and Scope 2 emissions were checked, as well as the emissions factors for each country and the primary evidence for each emissions source.

A zero emissions factor has been used for sites with renewable energy, on the assurance of SCB stating that energy procurement contracts there are indeed 100% renewable energy. Evidence was provided for a selection of sites with a) renewable electricity contracts or b) where Energy Attribute Certificates (EAC) are purchased.

The results of the carbon calculations and extrapolations are given in the Global Carbon Report spreadsheet. There are complications within this spreadsheet, linking to other worksheets, sometimes referencing the 'Site Level' tab's primary data, and sometimes the 'Raw Data' tab. The numbers could be tracked, though a methodology to explain everything would be useful.

2.3 Conclusion

Non-conformities have not been given in this report, as queries raised were addressed during the project.

Our conclusion is that the energy data & carbon calculations reported are correct.

3.0 RECOMMENDATIONS

A number of queries were raised during the project relating to data presented & evidence to support it. As these are cleared during the project, a detailed list of non-conformities will not be presented here.

Our recommendations for improving the process in the future, however, are given below:

- Write a methodology explaining in detail how data is collected, stored and presented in each spreadsheet, by whom and when. This can be used to follow the calculations more easily, especially as they involve complicated formulae and links to multiple worksheets.
- Explain clearly how zero emissions may arise from either using green electricity or purchasing EAC credits. State which applies to each site/country.
- Explain further any estimations made at each site (e.g. landlord provided data for cooling) which is not clear from the primary data presented. "EE workings" spreadsheets were available for some sites only.
- Better coordination of the two entities collating data and holding evidence would help speed up the process.
- Consider how best to store evidence so that it is easy to locate (previously had been uploaded into Credit360).
- Improve evidence submission, especially for sites from the AME and AE regions.
- Ensure data is recorded in the correct month for when the energy was used, not the month when the bill was received.
- Put in place processes for data collection for non-GEMS sites – either with information from landlord or calculating kWh from floor area. With non-GEMS sites responsible for around 27% of carbon emissions, this could have a significant impact on accuracy.
- When communicating the results in the Sustainability Report, make it clear that there are total emissions (location-based) and lower emissions resulting from green electricity & EAC (market-based). Also the extrapolation process to fill in data gaps.
- Introduce a regional overview, to identify where sites are not reporting. Consider a half-year review to ensure data is being presented correctly & completely.

4.0 VERIFICATION STATEMENT

5.0 This statement is as follows:

Verification Statement for Standard Chartered's 2022 Global Carbon Report

Global Documentation was tasked by Standard Chartered plc to provide independent verification (limited assurance level) for the reporting period 1st October 2021 to 30th September 2022 covering its carbon emissions: Scope 1 (combustion of fuels) & Scope 2 (purchased electricity, heat and cooling).

Management of Standard Chartered is responsible for the preparation and fair presentation of the data in accordance with its 'Carbon Emission Criteria'. This responsibility includes designing, implementing and maintaining a data management system relevant to the preparation and fair presentation of a statement that is free from material misstatement.

Our responsibility is to plan and perform our work to express an opinion on the inventory based on our verification. We conduct our verification in accordance with ISO 14064-3 (Guidance for the verification and validation of greenhouse gas statements). This International Standard requires that we comply with ethical requirements and plan and perform the verification to obtain reasonable assurance that the greenhouse gas (carbon) emissions & other data are free from material misstatement.

Our verification strategy used a combined data and controls testing approach. Evidence-gathering procedures included but were not limited to: determination of the project boundary; interview of key personnel to confirm processes and standard operating procedures; sampling of records to confirm accuracy of source data into calculations; calculation of extrapolated data; checking against emissions factors; recalculation of emissions. The data examined during the verification were historical in nature.

In our verification opinion, based on the work we have undertaken, and the evidence provided by Standard Chartered Plc, nothing has come to our attention that leads us to believe that the information has not been presented fairly, in all material respects, in accordance with the Reporting Criteria.

Scope 1 and Scope 2 emissions: 49,434 tCO_2e

Global Documentation Ltd

5th January 2023

Anya Ledwith