This greenhouse gas (GHG) Emissions Reporting Guidance ("GERG") document supports the preparation and reporting of greenhouse gas emissions data by HSBC Holdings plc (hereafter "HSBC"), for HSBC’s own operations. It is the responsibility of HSBC management to ensure that appropriate procedures are in place to prepare its greenhouse gas emissions reporting in accordance with the GERG. HSBC has:

- designed, implemented and maintained internal controls and processes over information relevant to the measurement and preparation of carbon emissions data that is free from material misstatement, whether due to fraud or error;
- established objective reporting criteria (i.e. GERG) for measuring, preparing and reporting the GHG emissions data and applied them consistently;
- presented information, including the criteria, in a manner that provides relevant, reliable, comparable and understandable information; and
- measured and reported the GHG emissions data based on this reporting criteria.

General Reporting Principles
In preparing this guidance document consideration has been given to following principles:

- Information Preparation – to highlight to users of the information the primary principles of relevance and reliability of information;
- Information Reporting – the primary principles are comparability / consistency with other data including prior year and understandability / transparency providing clarity to users.

Reporting Scope

Since 2013, HSBC’s annual data is prepared for the 12-month period to 30 September in accordance with internal reporting timelines. GHG emissions data comprises greenhouse gas emissions arising from:
• Energy used in commercial buildings, vehicles and other forms of transport owned or leased by HSBC and used for business purposes. By applying an emission uplift rate, energy used in residential building is also accounted for. This includes 100% of emissions from the assets of joint ventures or alliances where HSBC has management control;  
• Emissions arising from off-shored operations where HSBC retains control over the outsourced operation via contractual agreement; and  
• Other business travel including air; rail; fleet; taxi; hire car. By applying an emission uplift rate, elements of boat; bus/coach; ferry/junk; tram; and other travel are also included.  
• Purchased goods and services, and capital goods, obtained from HSBC’s upstream supply chain. This reporting will take place for the first time in 2022, reporting emissions for 2019, 2020, 2021 and 2022. Greenhouse gas emissions from acquisitions and disposals are included and terminated respectively from the date of contractual completion of the transfer of asset ownership/ leasehold. This is consistent with HSBC’s financial reporting. For acquisitions, where data are not available: estimates are prepared for additions which contribute more than 5% of the Reporting Unit (i.e. country level) annual data. 

For scope 1, 2 and 3 (business travel), reporting levels are defined on the basis of the percentage of Full Time Equivalent Employee (FTE) as at 30 September (reporting year runs from 1 October to 30 September). A scale up calculation is made on the basis of the FTE coverage rate to account for any missing data component (typically less than 10% of FTE). In addition, emissions uplift rates are applied to allow for uncertainty on quality and coverage of emissions measurement and estimation. The uplift rates are: 4% for electricity, 10% for other energy, and 6% for business travel, based on Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories and HSBC’s own internal analysis of data coverage and quality. 

Greenhouse gas emission reporting excludes emissions from investments (including loans to third party organisations), spend associated with use of financial intermediaries (e.g. exchanges) or interest payments made to depositors on interest bearing accounts and employee commuting (except where HSBC provides this service in its Global Technology Centres and Global Service Centres). It also excludes carbon equivalent emissions arising from other greenhouse gases on the basis that these are negligible and/or cannot be calculated with a sufficient level of reliability, however, CO2e factors were used wherever available, in which case elements of other greenhouse gases would have been included in total emissions. CO2e is reported in metric tonnes in HSBC reporting. Further details on the preparation of emissions reported are presented below.

Data preparation

Property
Data are reported for electricity, primary fuel sources and locally generated energy sources. Energy consumption data where possible are obtained via meters and collated from the service provider invoices. Where metered data are only partially available or not available, energy consumption may be calculated on the basis of a comparable property, extrapolation of cost per unit or estimates using floor area or other published industry baselines.

Travel
For air and rail travel, actual data are obtained from the business travel service agents. Where journey details are not available, estimates of distance travelled are based on the cost of an average journey or by extrapolating from a single month of travel. Where tickets are ordered on a local basis through a travel company an estimated distance of the journey may be made by the traveler/claimant. For independent bookings the estimate of distance travelled is based on the cost of an average journey.

Road travel is measured by direct measurement of journeys made for business purposes. Details of road journeys, including distances travelled, engine size of vehicle and fuel type are submitted as part of expense claims/invoices or from the fleet providers. This may include company vehicles, personal/private vehicles and hire vehicles. Where only cost data are available, an estimate of distances travelled can be calculated on a local basis. Where journey data are not available, previously recorded data or industry baseline data may be used. In some rare instances, it is impossible to split the business travel from the personal travel for company cars. In this situation, the personal travel is included in our reporting.

Supply Chain (Purchase Goods & Services and Capital Goods)
For our supply chain emissions, data is obtained from HSBC’s internal spend records and systems to define the scope of the supply chain and alignment of this spend to the scope 3 Purchased Goods & Services and Capital Goods categories under the GHG Protocol, based on whether the spend is capitalized in the general ledger. This capitalization information is available for spend data from HSBC’s main internal spend system. For the approx. 10% of spend that is not from this system, we have assumed that it is non-capitalised, so contributes to Purchased Goods & Services.

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1 Management control: where HSBC Group or its member has full authority to implement the Group environmental policy and where there is control of facilities management.
Emissions are then calculated using the scope 1, scope 2 and upstream scope 3 (operational emissions) that our suppliers disclose through CDP (formerly the Carbon Disclosure Project). We consider CDP submissions from 500 of our largest suppliers based on spend (which HSBC invited to participate in CDP) in this emissions data calculation, emissions are reported to CDP at parent entity level for an organisation. Where we have this emissions data for a supplier, the proportion of their operational emissions allocated to HSBC is based on the bank’s total Group-level spend with the supplier, as a proportion of the supplier’s total revenue. Supplier emissions data where external verification/assurance has taken place, is prioritised. We have assumed that where emissions are reported by an organization, these account for 100% of the organisation’s emissions for that scope. Where emissions data is publically available, but has not been externally verified/assured, it will also be used, however less precision in the emissions data for a supplier will be reflected by a less favourable data quality score, in line with HSBC’s financed emissions reporting methodology, see figure 1 below. Where emissions data is not available for a supplier, or they sit outside of the list of 500 of our largest suppliers, the revenue-based industry average for the supplier’s primary activity will be used to derive their emissions relevant to HSBC.

**Figure 1. Data Quality Scoring**

<table>
<thead>
<tr>
<th>Data Quality</th>
<th>Options to estimate the emissions</th>
<th>When to use each option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score 1</td>
<td>Option 1: Reported emissions</td>
<td>1a Verified emissions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1b Unverified emissions</td>
</tr>
<tr>
<td>Score 2</td>
<td>Option 2: Physical activity-based emissions</td>
<td>2a Emissions are calculated using primary physical activity data of the supplier’s energy consumption</td>
</tr>
<tr>
<td>Score 3</td>
<td>Option 3: Economic activity-based emissions</td>
<td>2b Emissions are calculated using primary physical activity data of the supplier’s production and emission factors specific to that primary data.</td>
</tr>
<tr>
<td>Score 4</td>
<td>Option 3: Economic activity-based emissions</td>
<td>3a Emission factors for the sector per unit of revenue are known (CDP Industry Average)</td>
</tr>
<tr>
<td>Score 5</td>
<td>Option 3: Economic activity-based emissions</td>
<td>3b Emission factors for the sector per unit of asset are known.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3c Emission factors for the sector per unit of revenue and asset turnover ratios for the sector are known.</td>
</tr>
</tbody>
</table>

International Sustainability Standards Board (ISSB) requires GHG accounting to align with the financial accounting period. In order to adhere to this, the time periods of the underlying data sets used in this methodology will not always align. HSBC spend data aligns to the consumption data for HSBC’s own energy and travel emissions (Oct- Sept), while the emissions and revenue data for suppliers will have an end date in the prior calendar year. In 2022, this means that supplier spend will cover the period October 2021 to September 2022, while emissions and revenue data will have a period end date in 2021.

**Conversion factors**

Conversion factors enable determination of the amount of carbon dioxide equivalent released into the atmosphere per unit of energy consumption. Different types of energy source and modes of travel have different conversion factors reflecting the carbon intensity.

**Scope 1 – Energy**

Scope 1 emissions are calculated using 2022 factors provided by the UK Government’s Department for Business, Energy and Industrial Strategy (BEIS) for each primary fuel source.

**Scope 2 – Energy**

HSBC reports energy emissions under the location and market basis introduced by the revised scope 2 guidance of the GHG protocol. HSBC has reviewed the revised GHG Protocol Scope 2 Guidance and has worked with service providers in 2020 to integrate the revised GHG Protocol Scope 2 Guidance into HSBC’s reporting methodology to enable HSBC to report using both location based and market based methodologies.

**Market Based**

For market based emissions reporting, HSBC applies the following hierarchy of emission factors, using the most recent factors available:

1. Factors provided by electricity attribute certificates or equivalent instruments;
2. Factors provided by contracts for electricity, such as power purchase agreements (PPAs).
3. Factors provided by energy suppliers
4. Factors provided by the Association of Issuing Bodies (AIB) for the residual mixes in Europe
5. Other grid-average emission factors (subnational or national)
6. Factors provided by the International Energy Agency (IEA).

Location Based

For location based emission reporting; HSBC applies the following hierarchy of emission factors:

1. Regional or subnational emission factors
2. National production emission factors
3. Factors provided by the International Energy Agency (IEA).

Scope 3 – Travel

For travel, factors are provided by the transportation services suppliers or from published sources of the countries, where the kilometers are travelled. In 2021 we updated our reporting methodology specially related to air travel emissions including the cabin seating class and the radiative forcing factors. Our 2019 baseline for the Net Zero strategy has been updated for air travel, and includes the cabin seating class and the impact of the radiative forcing.

Guidance on the use of conversion factors, including the most recent factors released by the IEA and BEIS is issued internally annually.

Scope 3 – Supply Chain

Where suppliers' emissions data is not available, or a supplier is outside HSBC's 500 largest suppliers, we use an industry average figure provided based on a supplier's primary activity to calculate HSBC's portion of their emissions. These industry average factors are presented as metric tonnes CO2e/US$m and are sourced from CDP, who publish annual industry averages based on the CDP submissions they received that year. For our baseline year of 2019, CDP did not publish an industry average file, so we have used the 2020 industry averages in these calculations. These averages are available in quartiles and the 75th percentile will be used to ensure a conservative approach is taken to the industry averages calculations.

Prior year adjustments

The measuring and reporting of GHG emissions data inevitably involves a degree of estimation. In exceptional circumstances restatements of prior year reported emissions and offset data may be required. Restatements are considered where there is a change in the data and/or in the data collection or preparation that will have material impact on the total emissions and/or offset at Group level.

Prior year recalculations and adjustments

The measuring and reporting of GHG emissions data inevitably involves a degree of estimation. In exceptional circumstances restatements of prior year reported emissions and offset data may be required. Restatements are considered where there is a change in the data and/or in the data collection or preparation that will have material impact on the total emissions.