Greenhouse Gas Inventory Management Plan

Hermes Transportes Blindados SA

V 1

Prepared By: Schneider Electric

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2021 Inventory Management Plan Overview	
Organization name	Hermes Transportes Blindados SA
Organization address	Av. Producción Nacional 268, Chorrillos, Lima, Perú
Contact person	Patricia Jave Montano (Patricia.Montano@hermes.com.pe)
Industry	Financial services (armed transportation)
Organizational activities	Armed transportation
Revenue (2021)	Approx. 95 million USD
Reporting Period	Calendar Year (1 January 2021 – 31 December 2021)
Organizational Boundary	Operational Control
Exclusions	No exclusions
Verification	No 3rd party verification

Out of Scope Emissions	
CO_2-related Biogenic emissions	281 tCO_2e [1]

In Scope Emissions	Location-Based	Market-Based
Scope 1	5,185 tCO_2e	5,185 tCO_2e
Scope 2	615 tCO_2e	615 tCO_2e
Scope 3	18,967 tCO_2e	18,967 tCO_2e
Total (in-scope) emissions	**24,767 tCO_2e**	**24,767 tCO_2e**

[1] tCO_2e = metric tons of CO_2 equivalent

Content

1 Introduction

The purpose of the Greenhouse Gas (GHG) Inventory Management Plan (IMP) is to provide explanation and guidance for Hermes Transportes Blindados SA (hereafter referred to as “Hermes”) calculation of GHG emissions in accordance with the Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard. It provides organization-wide information including corporate overview, reporting boundaries, emission sources, data management, quantification methods, emission factors, and base year. It is designed to account for and report on the calculation methodologies. The content herein will be used for both internal reference and will, in part, provide transparency for any future external or 3rd party reporting and validation of interest to Hermes.

The document is based on five (5) principles to ensure that the inventory has been prepared in accordance with industry accepted best practices. The accounting and reporting principles set forth below are in accordance with those outlined in the World Resource Institute (WRI)/World Business Council on Sustainable Development (WBCSD) Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard:

- **Relevance:** Ensure the inventory appropriately reflects impacts and emissions and serves the decision-making needs of users – both internal and external to the organization.
- **Completeness:** Account for and report all key environmental sources and activities within the defined inventory boundary.
- **Consistency:** Use consistent methodologies to allow for meaningful comparisons of emissions and usage over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.
- **Transparency:** Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.
- **Accuracy**: Ensure that the quantification of impacts and emissions is neither systematically over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practical. Achieve sufficient accuracy to enable users of your data to make decisions with reasonable assurance of the integrity of the reported information.

1.1 Environmental Reporting Protocols

Hermes’ GHG Inventory follows the guidelines set forth in the Greenhouse Gas Protocol (GHG Protocol), which was developed by the World Business Council for Sustainable Development (WBCSD) in collaboration with the World Resources Institute (WRI).

1.2 Document Declaration

This document and the associated attachments were produced based on data provided to Schneider Electric (hereafter referred to as “SE”) by Hermes. It constitutes a complete and accurate representation of Hermes’ direct and indirect GHG emissions, as defined by the information detailed in this document. An annual review and update of the IMP is recommended to reflect the most recent, relevant, complete, and accurate emissions data.

1.3 Roles and responsibilities

All information has been collected by Hermes on the corporate level and shared with SE, who is responsible for high-level data gap checks and calculation of the corporate carbon footprint. Currently SE has no visibility of Hermes’ internal data collection processes and whether/what roles, and responsibilities are defined. However, it is recommended that those are established for future reporting years.

2 Version Information

Item	Description			
A	**Reporting Period**	January 2021 – December 2021		
B	**Version of IMP**	V1	Prepared by: Eqra Jawaid	Date: 20/09/2022
			Reviewed by: Annamaria Virag	Date: 05/10/2022
			Approved by: Ioannis Papagrigoriou	Date: 07/10/2022

3 Boundary Conditions

3.1 Organizational Boundaries

In setting organizational boundaries, an entity selects an approach for consolidating its GHG emissions to define which activities are considered part of the organization. In accordance with the GHG Protocol, an entity can choose between three consolidation approaches when defining its organizational boundary, as detailed in Table 1.

Table 1: Consolidation approaches for organizational boundaries

Consolidation approach		Description
Equity Share		An organisation accounts for activity data and GHG emissions sources from operations that are wholly owned and partially owned according to the organisation's share of equity in the operation
Control	**Financial**	The ability to dictate or direct financial policies of a facility with the interest of gaining economic benefits from its activities (i.e., wholly own a facility)
	Operational	The full authority to introduce and implement corporate or site-specific operating policies at the particular asset or operation

For this GHG assessment, Hermes has applied the principles of the **Operational Control Approach**. Under this approach, Hermes accounts for all emissions where it has direct control over its operations and where it can influence the decisions that affect GHG emissions. This includes all owned or leased facilities and vehicles operated by Hermes. Where Hermes has operational control but does not wholly own facilities, these will be included in the organizational boundary. This approach is consistent with the WRI/WBCSD GHG Protocol and general sustainability reporting protocols and guidance.

3.2 Organization-wide sites in the inventory

Hermes has provided SE with a list of eighteen (18) active sites, all of which were tracked in the reporting period and have corresponding GHG emissions calculated. A detailed list of the sites within the organizational boundaries is presented in Attachment A.

3.3 Operational Boundaries

Setting operational boundaries for Hermes' operations requires quantifying the associated impacts and emissions, categorised by Scope 1 (Direct), Scope 2 (Indirect) and Scope 3 (Other Indirect Emissions). The following sections provide detail on the applicable operational boundaries for Hermes' inventory.

Standard greenhouse gas reporting looks at the emissions associated with seven greenhouse gases:

- Carbon Dioxide (CO_2)
- Methane (CH_4)
- Nitrous Oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur Hexafluoride (SF_6)
- Nitrogen Trifluoride (NF_3)

3.3.1 Emission Categories and Sources

Following the definition of Hermes' inventory boundary, relevant sources of emissions are identified and categorized into Scopes 1, 2, and 3 according to the established organizational boundaries (see attachments C, D and Figure 1 below for further details). Where applicable, Biogenic emissions, are reported separately outside of Scope 1, 2 & 3, in accordance with the GHG Protocol guidelines (see Attachment E).

A definition of the emission scopes considered for the inventory is provided in Table 2 below.

Table 2: General description of the emissions scopes

Emission scopes	Description
Scope 1 - Direct	Emissions from sources that are owned or controlled directly by an entity. Activity data and emissions include combustion of fuels in stationary (non-transport) combustion sources on-site (e.g., heating boilers), mobile combustion sources (company-owned/leased vehicles), or process-based emissions (e.g., cement or ammonia production). Also included, are refrigerants mainly for air conditioning purposes.
Scope 2 - Indirect (energy)	Emissions associated with the consumption of purchased or acquired electricity and district heating/cooling, or steam. Activity data and emissions include the purchase of electric power, district heating/cooling, and steam from the local utility.
Scope 3 - Indirect (other)	All indirect emissions (not included in scope 2) that occur in the value chain of Hermes, including both upstream and downstream activities.
Out of Scope (biogenic)	The fraction of CO_2-only emissions related to the consumption of bioenergy (CH_4, N_2O are included in Scope 1 & 2). Biogenic CO_2 emissions are one of several activities labelled 'outside of scopes' by the GHG Protocol Corporate Accounting and Reporting Standard, because the impact has been determined to be a 'net zero' (i.e., the fuel source itself absorbs an equivalent amount of CO_2 during its growth phase as the amount of CO_2 released through combustion).

Below is a listing of Hermes' activity types that are part of the operational boundaries for Scope 1, 2 & 3. For more details on emission sources and categories, please see Attachment C and D.

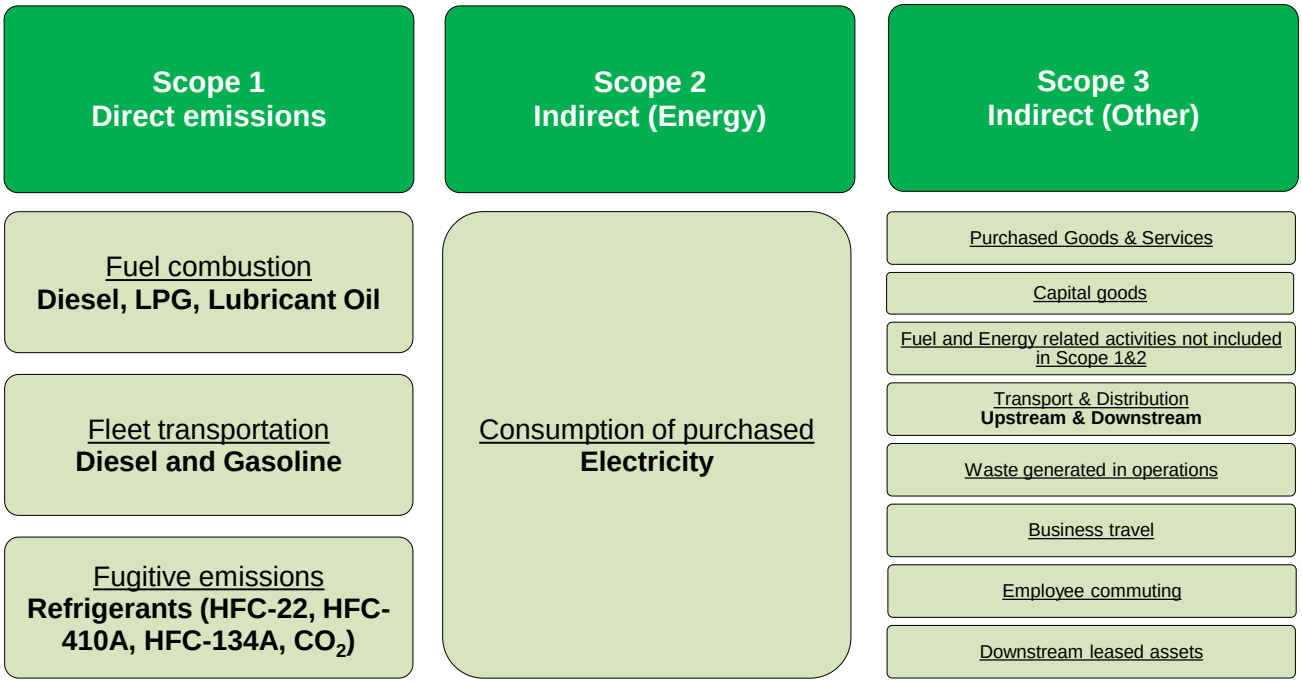


Figure 1: Emission sources and categories

Scope 3 (Other Indirect emissions) consists of 15 distinct reporting categories, which have been assessed as part of Hermes' 2021 GHG assessment (see sections 0 and 5.1.2 below for further details).For reference, the GHG Protocol definition for each of the 15 Scope 3 categories is provided in Table 3 below. Categories which are not applicable for Hermes:

- *Upstream leased assets:* Based on Hermes' organisational boundary, every leased asset is included in Scope 1 & 2.
- *Processing of sold products:* Hermes does not sell any products.
- *Use of sold products:* Hermes does not sell any products.
- *End-of-life treatment of sold products:* Hermes does not sell any products.
- *Franchises:* Hermes is not a franchisor company.
- *Investments:* Hermes has not invested in other companies.

Table 3: Description of Scope 3 categories

#	Scope 3 Category	Source	Reported in 2021 GHG IMP
1	Purchased Goods & Services	All upstream (cradle-to-gate) emissions of purchased goods and services	Yes
2	Capital Goods	All upstream (cradle-to-gate) emissions of capital goods	Yes
3	Fuel & Energy - Related Activities	All upstream (cradle-to-gate) emissions of purchased fuels and energy (from raw material extraction up to the point of, but excluding, combustion, including T&D losses)	Yes
4	Upstream transport	The scope 1 & 2 emissions of transportation and distribution providers that occur during use of vehicles and facilities (e.g., from energy use)	Yes

5	Waste generated in operations	The scope 1 & 2 emissions of waste management suppliers that occur during disposal or treatment	Yes
6	Business travel	The scope 1 & 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use) for transportation of employees for business purposes	Yes
7	Employee commuting	The scope 1 & 2 emissions of transportation of employees between their homes and their worksites	Yes
8	Upstream leased assets	The scope 1 & 2 emissions from the operation of leased assets that are not already included in scope 1 & 2	Not applicable
9	Downstream transport	The emissions from transportation and distribution of sold products in vehicles and facilities not owned or controlled by Hermes	Yes
10	Processing of sold products	All emissions from processing of sold intermediate products by third parties (e.g., manufacturers) after sale by Hermes	Not applicable
11	Use of sold products	The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of products that directly consume energy (fuels or electricity) during use: - fuels and feedstocks - GHGs	Not applicable
12	End-of-life treatment of sold products	The scope 1 & 2 emissions of waste management companies that occur during disposal or treatment of sold products	Not applicable
13	Downstream leased assets	The scope 1 & 2 emissions from the operation of leased assets that are owned or controlled by Hermes and leased to other entities that are not already included in scope 1 & 2	Yes
14	Franchises	The scope 1 & 2 emissions from the operation of franchises not included in scope 1 & 2	Not applicable
15	Investments	The scope 1 & 2 emissions from investments not included in scope 1 & 2	Not applicable

4 Data Management

The most accurate, reliable, and readily available data was used to quantify impacts from the above sources on Hermes' operations. Sources of activity data include, but are not limited to, monthly purchase records, meters, internal measurements and tracking controls. The following section describes the primary data collection and validation process, the data estimation methods used, as well as a *de minimis* assessment where applicable.

4.1 Data Collection

This section describes the process of collecting and processing activity or monitoring data from its original source to the final data disclosed in Hermes' GHG inventory.

For the 2021 GHG inventory, two Excel spreadsheets were used to collect and consolidate operational and financial data. SE issued the templates as a request for information (Scope 1 & 2 RFI and Scope 3 RFI).

4.1.1 Scope 1 & 2

The activity data for Scope 1 & 2 were collected using the Scope 1 & 2 RFI, where all the emissions sources are collected in different tabs. Where available, information was provided by Hermes' Point of Contact for each

site, with additional information such as the number of air conditioning units and owned or leased vehicles to ensure that all emission activities were captured.

4.1.2 Scope 3

The data for Scope 3 was provided by Hermes' Point of Contact primarily on an expenditure basis using the Scope 3 RFI. The Scope 3 RFI data collection is designed to be consistent with the WRI Scope 3 Evaluator screening assessment, which is aligned with the GHG Protocol.

4.2 Data Quality Check and Validation

The responsibility for the validity and accuracy of the data provided lies with Hermes. SE has not been contracted in the capacity to verify any of the data against evidence of the primary data, including Renewable Energy claims. Therefore, SE cannot be held liable for incorrect results due to inaccurate primary data provided by Hermes. After Hermes consolidated and shared the data, SE conducted high-level quality checks and requesting explanations for apparent data gaps where necessary. When data gaps could not be filled or clarifying information was not available, emissions were estimated to the extent possible. The estimated emission sources are listed in Section 4.6 with corresponding recommendations for improving data quality in Section 7.

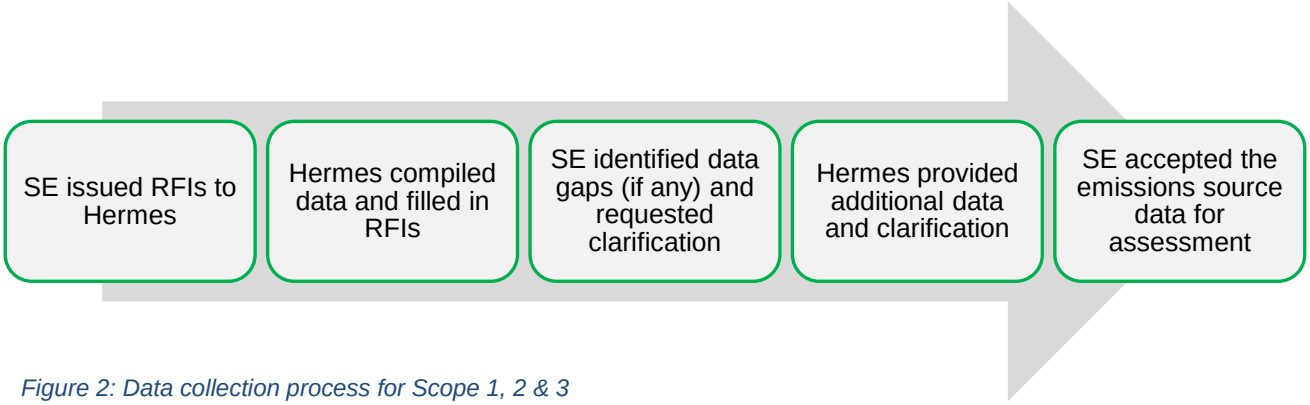


Figure 2: Data collection process for Scope 1, 2 & 3

Year-on-Year comparisons of reported emissions to detect errors are not possible at this stage as only single year of data were provided. This IMP provides guidance on how to consistently measure Hermes' carbon footprint over time, and this type of quality control should be performed in future reporting periods. Further guidance on Year-on-Year variations is provided in Section 7.1.

4.3 Data Security

The information compiled to develop the 2021 GHG inventory is maintained and controlled by SE. Data security and confidentiality are ensured by Clause 6.3 of the Master Service Agreement. Access rights to the data collection spreadsheets (RFIs) are granted through shared folders only to key contacts of CVC, Hermes and SE. Changes to the RFIs are not acknowledged after SE accepts the data for assessment, unless the changes are explicitly communicated by Hermes and authorised by SE.

4.4 Management engagement and review

A kick-off webinar was delivered to Hermes' key contact(s) by SE, detailing the required data and demonstrating the data collection methodology. Subsequent communication between SE and Hermes in the form of meetings, phone calls, and emails served to provide further information and clarification regarding the completion of the RFI for Scope 1 & 2 and Scope 3.

All data and assumptions provided to SE by Hermes are considered truthful and accurate. The final version of the IMP has been reviewed by Hermes' key contact(s) and any issues raised have been amended prior to final submission.

4.5 Frequency

Site data was collected and reported to the corporate level. Collection and reporting of site data should be done at least annually to avoid significant errors and to monitor significant changes.

4.6 Estimated data

Based on information shared by Hermes, no estimations were required as Hermes was able to acquire primary data for all active sites and emissions sources throughout the entire reporting period.

4.7 *De minimis* assessment

A *de minimis* assessment has not been conducted, as all activity data have been included in the inventory.

5 GHG Emissions Quantification

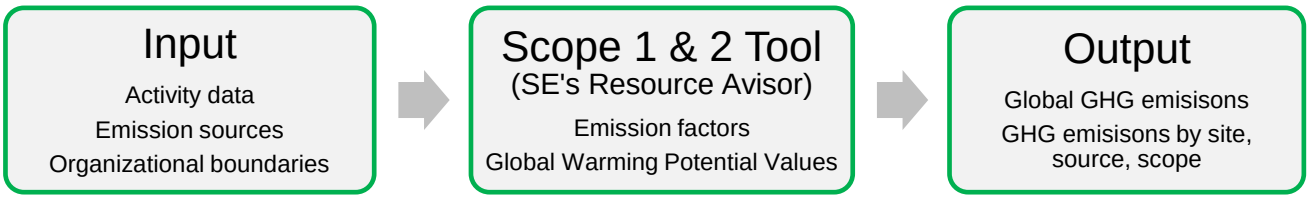
5.1 Quantification Methods

5.1.1 Scope 1 & 2

The quantification methods used for the inventory are in accordance with best practice as followed by WRI/WBSCSD GHG Reporting Protocol and based on latest available factors.

Usage or "activity" data from emission sources are used to calculate Scope 1 & 2 emissions. The activity data is multiplied by the correlating emission factor as defined in the GHG Reporting Protocol or by technical assessments for that activity (please see Section 5.2.2). A general formula for calculating emissions is:

Activity Data x Emission Factor = (CO_2, CH_4, N_2O, HFC, PFC, SF_6, NF_3) Emissions



A more detailed description of GHG calculations, including Scope 1 & 2 emissions can be found in Attachment C.

5.1.2 Scope 3

Scope 3 emissions were estimated for screening purposes using WRI's Scope 3 Evaluator tool, which links input data on Hermes' activities and expenditures to a combination of economic input-output and process life cycle inventory data. The tool can be accessed online at: https://ghgprotocol.org/scope-3-evaluator. The input data needed to run the tool is primarily procurement data for main purchases and services acquired during the reporting year. The WRI Scope 3 Evaluator follows the GHG Protocol guidelines for screening Scope 3 emissions and identifying significant Scope 3 categories.

The results of the screening assessment can be found in Attachment D.

5.2 Global Warming Potential and Emission Factors

5.2.1 Global Warming Potential

In order to compare the impacts associated with different GHGs, all emissions must be converted into CO_2 equivalent (CO_2e), which is the reference gas, using a value unique to each gas. These values are regularly updated by the Intergovernmental Panel on Climate Change (IPCC). In this document, the values published in IPPC – AR5, corresponding to the 2021 reporting period, have been used for all calculations of Scope 1 & 2 (Table 4).

Table 4: Global Warming Potential (GWP) values used for Hermes' inventory

GHG	CO_2	CH_4	HFC-410A	HFC-134A	HFC-22
GWP	1	28	1,924	1,300	1,760

5.2.2 Emission Factors

In accordance with the dual reporting requirement of the GHG Protocol, Hermes' inventory applies emission factors from 2 relevant emission databases: Location-Based (LB) and Market-Based (MB) inventories.

Emission factors between LB and MB differ only in Scope 2 – Electricity. The LB method reflects the average emissions intensity of grids on which energy consumption occurs, using grid-average emission factors. The MB method reflects specifically the carbon intensity of the electricity procured by Hermes.

In the MB inventory, when the end-user is sourcing electricity from non-renewable origin, the emissions are calculated by subtracting the reliably tracked renewable consumption (e.g., Guarantees of Origin) from the generation mix of the relative geography. This is defined as the residual mix. The residual mix prevents double counting in energy sourcing disclosure and Scope 2 emissions data. Hermes uses the residual mix emission factors for Scope 2 – Market-Based emissions defined by each relative geography where Hermes operates.

Figure 3 illustrates the decision-tree process for the calculation of MB emission factors.

For direct emissions (Scope 1), fuel-specific emission factors for CO_2, CH_4, N_2O are used for all sites using the 2021 UK Department for Environment, Food and Rural Affairs (DEFRA) emissions dataset (adjusted with GWP values from IPCC AR5), while refrigerant-specific emissions factors are taken from IPCC AR5.

The emission factors used in Hermes' LB and MB inventories are presented in Table 5.

Table 5: Description of Location-based and Market-based inventories

Inventory		Location-Based	Market-Based
Scope 1	Fuels	DEFRA (adjusted with GWP values from IPCC AR5)	
	Refrigerants	IPCC AR5	
Scope 2	Electricity	IEA National Emission Factors (for South American sites)	IEA National Emission Factors (for sites with no MB value)

For additional information on emission factors, please refer to Attachment C.

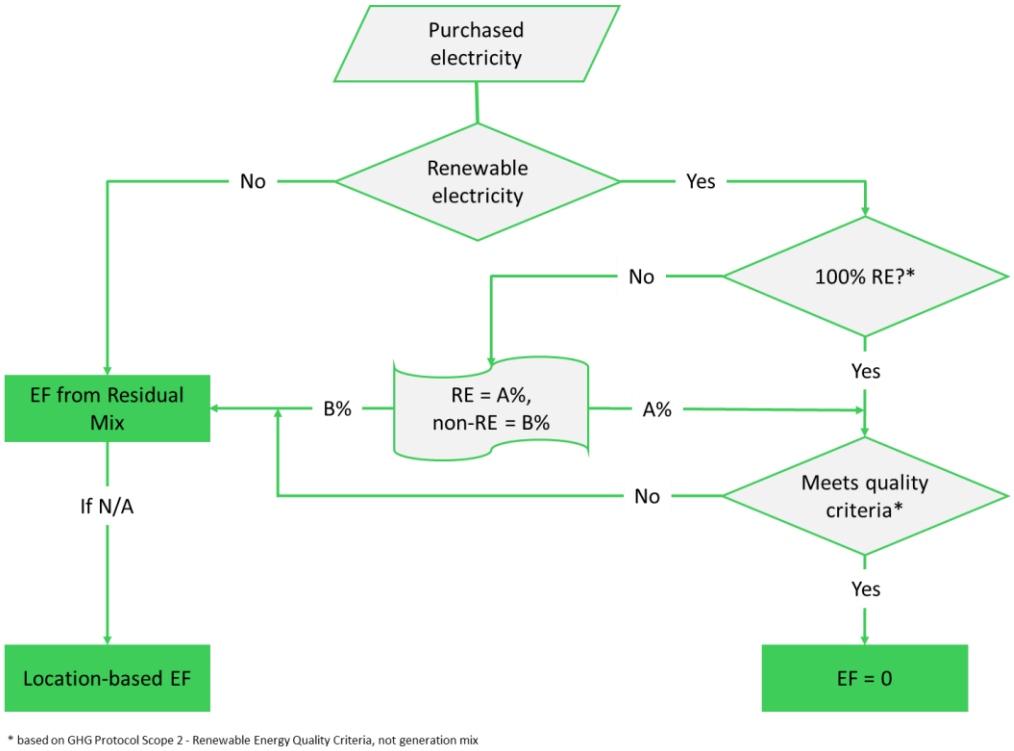


Figure 3: Decision tree for determining Market-Based emission factor

6 Base Year

The base year shall represent an "average" year for the organization's emissions data. Most organizations select a single year as their base year, but it is also possible to choose an average of annual emissions over several

consecutive years. Furthermore, the GHG Protocol states that “companies shall choose and report a base year for which verifiable emissions data are available and specify their reasons for choosing that particular year” (p. 35, GHG Protocol). The selection of a year with anomalies or exclusion of more than 5% Scope 1 & 2 emissions is not recommended, as the emissions data might not compare well with subsequent years.

This is the first effort to collect and consolidate Hermes’ emissions data and, understandingly, data gaps exist. Therefore, we recommend selecting a base year for the inventory in subsequent years when data quality improves reflecting more closely “business-as-usual” year.

6.1 Adjustments to Base Year Emissions – Structural and Methodology Changes

Hermes’ base year and subsequent year inventories shall be adjusted for mergers, acquisitions, and divestitures, according to the method provided in the GHG Protocol. They shall be updated if a significant cumulative change in Hermes’ base year emissions is identified. Any change would be deemed significant under the following circumstances.

- A structural change of Hermes’ organisational boundaries, due to a merger, acquisition or divestiture of entities that existed in the base year (optional: Hermes may choose to recalculate the base year to the earliest year for which data is available for the newly acquired or merged company)
- A change in applied emission calculation methodologies or factors
- Additional or new data and/or methodology is provided for emissions sources previously unavailable
- Outsourcing (i.e., production of goods/services subcontracted outside of Hermes’ agreed reporting boundaries) or insourcing (i.e., bringing any production of goods/services in-house, which were previously sub-contracted) resulting in new Scope 1 & 2 emissions not previously accounted for within the original GHG Inventory
- A significant, or multiple error(s) are identified in the Inventory

The GHG Protocol does not specify a significance threshold. Hermes must define what significance threshold will trigger base year recalculation. As a good practice, SE recommends defining significance threshold as the cumulative change (+/-) of five percent (5%) or greater in Hermes’ total base year emissions.

Where Hermes has acquired or merged with a company, but base year data for the new company is still not available after all reasonable effort has been made to obtain it, an alternative, simplified method may be used to update the base year data using any available data. NB in such instances, any associated procedures, calculation methodologies, and supporting data should be documented in the IMP.

Where the level of data relating to the newly acquired company is insufficient to carry out any agreed data estimation techniques when adjusting the baseline data, a new re-baselining exercise will be undertaken for the current reporting year (which will include the new acquisition / merger). Such modifications to the reporting program shall be documented in the IMP.

The following provide examples of circumstances deemed insignificant and therefore not requiring a re-baselining of Hermes’ base year data (please note this list is not exhaustive):

- An acquisition or merger of new facilities that did not exist in the base year
- Outsourcing (i.e., production of goods/services subcontracted outside of Hermes’ agreed reporting boundaries) or insourcing (i.e., bringing any production of goods/services in-house, which were previously sub-contracted), that has already been reported under a different Scope
- Organic growth or decline, such as increases or decreases in production output, changes in processes or product mix, and closure / openings of operating units owned or controlled by Hermes

7 Recommendations

7.1 Quality of Data

SE recommends reviewing data trends including Year-on-Year variances, missing values, normalized usage figures by geography and facility type.

The following checks are necessary to ensure data reliability and explanation of key variations.

Year-on-Year comparisons:

Starting from 2022 reporting period, the data quality checks shall include verification of significant Year-on-Year deviations for all sources and prioritise those activities based on significance of the deviation.

There are 3 levels of significance defined for activity data:

- Site is more than 10% of total consumption: 5% detection threshold, significance level = 3
- Site is between 1% and 10% of total consumption: 10% detection threshold, significance level = 2
- Site is below 1% of total consumption: 20% detection threshold, significance level = 1

Any deviations with significance level 3 are the highest priority for verification, as any potential data quality issues will have the greatest impact on group reporting.

Any reported deviations shall be checked against comments provided by the site/country representative who provided the data. In cases where a full explanation is provided by the representative; the deviation is marked as resolved. For any unclassified deviations, the report is sent back to the site/country representative for clarification and to check consumption against any primary evidence if the deviation cannot be explained.

Sites with zero or no values entered in year N and a value in N-1 and vice versa, are also identified as deviation. It is reviewed and explanation (such as closure/opening of sites, data availability, etc) should be documented in this case.

7.2 Management Review

It is recommended to have annual GHG reports reviewed and validated by Hermes' management on an annual basis as part of the annual review process. The process is intended to ensure that the GHG inventory is complete, accurate and maintains continuous improvement of the ongoing sustainability reporting program. It is further recommended that Hermes refines and codifies the management review process as well as clearly established internal roles and responsibilities for subsequent IMP versions.

7.3 Scope 3

Going forward, it is recommended to develop more robust approaches for categories shown to represent a significant share of the total Scope 3 emissions, which is a requirement set by the Science Based Targets initiative (SBTi), should Hermes wish to commit and have their decarbonizations targets approved by SBTi.

Approximately 55% of Scope 3 emissions are attributed to two categories – upstream transport and employee commuting. Collecting actual data or having a robust data collection system for upstream transport and employee commuting would improve the accuracy of reported Scope 3 emissions.