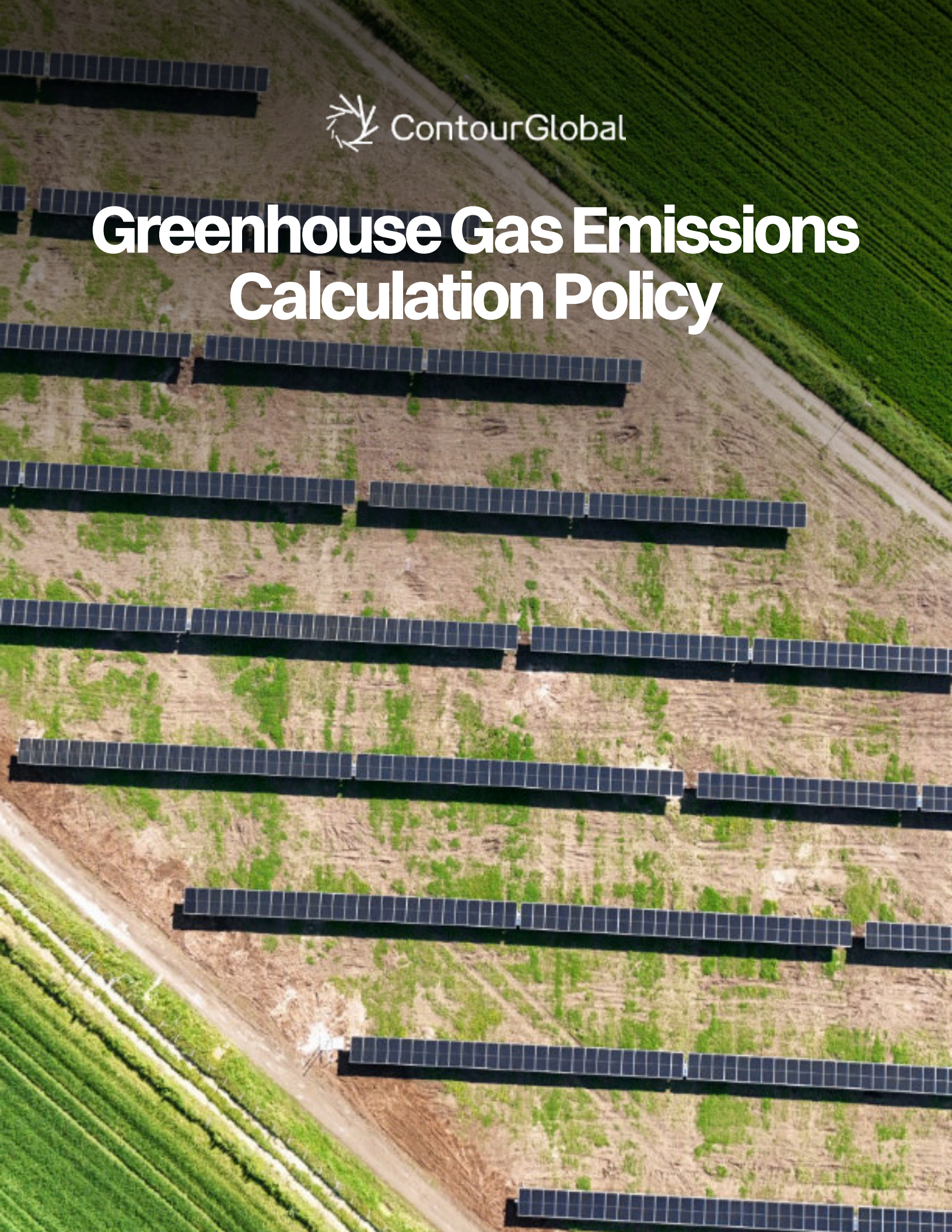
ContourGlobal

Greenhouse Gas Emissions Calculation Policy



1.0 GREENHOUSE GAS EMISSIONS

Gases that have the ability to absorb infrared radiation reflected from the Earth's surface and then re-emit part of that radiation back towards the Earth's surface, thus creating the so-called Greenhouse Effect, are commonly known as Greenhouse Gases. The Kyoto Protocol lists seven greenhouse gases:

- carbon dioxide (CO_2),
- methane (CH_4),
- nitrous oxide (N_2O),
- sulfur hexafluoride (SF_6),
- nitrogen trifluoride (NF_3),
- hydrofluorocarbons (HFCs), and
- perfluorocarbons (PFCs).

The ability of these gases to absorb and re-emit infrared radiation (or trap heat) varies. To compare the warming effects of different greenhouse gases, their emissions are converted to a common unit called carbon dioxide equivalent (CO_2e) by multiplying the mass of the gas by its Global Warming Potential (GWP). Carbon Dioxide (CO_2) is the baseline for comparison and has GWP of 1. Higher GWP means that the gas is more potent; for example, N_2O has a GWP of 273, which means 1 ton of N2O is equivalent to 273 tons of CO_2 (or CO_2e).

For ContourGlobal's internal and external reporting, the Company is using consolidated intensity metrics, based on available data and emission factors, which may be subject to revision, in addition to detailed and consolidated absolute Scope 1, Scope 2 and Scope 3 emissions. The consolidated intensity metrics are calculated centrally at a corporate level by the Senior Manager, Environmental Sustainability and Carbon Accounting (assets are not required to calculate individual intensity metrics) using the following formulas:

CO_2e Intensity of Electricity Generation = (Net CO_2e Emissions Scope 1 + CO_2e Scope 2) / Net Electricity Generation

- **CO_2e Intensity of Electricity Generation** – tonnes of CO_2 equivalent emitted for each net MWh of electricity we produce
- **Net CO_2e Emissions Scope 1 -** tonnes of direct CO_2 equivalent emitted to the atmosphere
- **CO_2e Scope 2** – tonnes of indirect CO2 equivalent emitted to the atmosphere from third parties for energy consumed by CG operations
- **Net Electricity Generation –** electricity generated by the Company and exported to CG's clients

CO_2e Intensity of Energy Generation = (Net CO_2e Emissions Scope 1 + CO_2e Scope 2)/ Net Total Energy Generation

- **CO_2e Intensity of Energy Generation** – tonnes of CO_2 equivalent emitted for each net MWh of energy produced by CG.
- **Net CO_2e Emissions Scope 1 -** tonnes of direct CO_2 equivalent emitted to the atmosphere
- **CO_2e Scope 2** – tonnes of indirect CO2 equivalent emitted to the atmosphere from third parties for energy consumed by the Company's operations
- **Net Total Energy Generation –** thermal and electrical energy generated by CG and exported to ContourGlobal's clients as documented by invoices and meter readings

2.0 GREENHOUSE GAS EMISSIONS REPORTING

This Policy is based on GHG Protocol Guidelines (Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard). Under the GHG Protocol guidelines, the Company is required to set an inventory and reporting boundary, and CG's inventory and reporting boundary is operational control. This boundary applies to all Scope 1, Scope 2,

and a large portion of Scope 3 emissions, except for Scope 3, Category 15 (Investments), which accounts for emissions of assets in which the Company has equity but not operational control.

Our GHG inventory and reporting:

- Covers all global activities operationally controlled[1] by CG with Scope 3, Category 15 covering emissions from investments.
- Includes CO_2e data for acquired businesses for the period when CG had operational control of the business, i.e., the month of acquisition. A full month of data is considered to align with the billing cycles and ensure high-quality results.
- For newly acquired businesses, it is required, to the extent that such data is available or can be reasonably obtained, that data is collected for the previous period going back to and including the full year of 2022.
- Includes all listed greenhouse gases in the Kyoto Protocol. However, gases such as NF3 and PFCs are of limited applicability for our business and can be found only in CG's upstream value chain emissions.

3.0 CALCULATION METHODOLOGY

ContourGlobal's methodology is based on the GHG Protocol Standards and Guidelines that can be found at the following link: https://ghgprotocol.org/

3.1 Scope 1 Emissions

Scope 1 CO_2e emissions are calculated based on fuel and other raw materials consumption, distance travelled/hours in operation (for company-owned vehicles), measured leakages for fugitive emissions (these emissions result from intentional or unintentional releases, e.g., equipment leaks) and appropriate emission factors at the individual asset level and the methodology set forth in Scope 1 Emissions Data Collection and Calculation chapter of this document.

Calculations utilize the most relevant and recent emission conversion factors for the regions in which CG operates, in line with the GHG Protocol for calculating Carbon Dioxide (CO_2) and Carbon Dioxide equivalent (CO_2e). The emission factors used to calculate emissions are extracted from official sources, or where not available, from internationally recognized methodologies,and the global warming potential ("GWP") values published by the Intergovernmental Panel on Climate Change ("IPCC"), with CO_2 having a GWP equivalent of 1. Values published by the IPCC are used for the GWP for fugitive emissions. GWP is used to convert the quantity of leaked gases to tCO_2e.

3.2 Scope 2 Emissions

Scope 2 CO_2e emissions, which include purchased electricity, steam, heating, and cooling for ContourGlobal's own use, make up a small proportion of the Company's total CO_2e emissions associated with generating energy. Following the GHG Protocol's Scope 2 Guidance, Scope 2 emissions are calculated on a location-based method and marked-based method, when information is available (for further details see Scope 2 Data Collection and Calculation chapter of this document).

[1] Under the control approach, a company accounts for 100 percent of the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations in which it owns an interest but has no control. A company has operational control over an operation if the former or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.

3.3 Scope 3 Emissions

All other indirect emissions that result from ContourGlobal's upstream and downstream value chain activities are reported as Scope 3 emissions. A detailed list of categories and calculation methodologies are included in Scope 3 Data Collection and Calculation chapter of this document.

Scope 3 CO_2e emissions are calculated centrally on a corporate level by the Senior Manager, Environmental Sustainability and Carbon Accounting. Assets are required to provide:

- Waste generated in operations
- Employee Commute Data (distance travelled, means of transportation)
- CO2 revenue were applicable

3.4 Historical Data Collection

A consistent comparison of GHG emissions over time requires an anchor point versus which future performance will be compared. ContourGlobal has set its decarbonization target compared to 2022 emission levels and any asset acquired after 2022 must provide 2022 GHG emissions data where such data exists or can be reasonably reconstructed, in full compliance with this Policy. Accordingly, if CG acquired an asset in 2024, the asset must provide emissions/generation for 2022. As previously mentioned, ContourGlobal's targets are set compared to 2022 emission levels and are 40% Scope 1 + Scope 2 emissions reduction by 2030, a 15% reduction in Scope 3 emissions, and achieving net zero GHG emissions by 2040.

As per GHG Corporate Standard, ContourGlobal accounts for the following for its 2022 emission levels:

- Structural changes occurred in the reporting organization that have significant impact on the Company's emissions
- Changes in calculation methodology have significant impact on the Company's historical emissions
- Discovery of significant errors, or a number of cumulative errors, that are collectively significant

CG has established a significance threshold of 5% of total 2022 GHG emissions and/or total 2022 energy produced.

4.0 CHECKS AND CONTROLS

Annual policy acknowledgment and training are performed for employees directly responsible for collecting data and performing calculations on an asset level.

Greenhouse gas data and calculations are reviewed and approved by Plant Managers at asset level for each quarter and the Plant Managers will provide formal approval following established process

Consolidated CO_2e emissions are reviewed and approved by Head of Sustainability and Senior Manager, Environmental Sustainability and Carbon Accounting on an annual basis, at the beginning of each calendar year for the full year emissions for the previous year.

5.0 DATA REPORTING AND STORAGE

ContourGlobal's data is collected and stored in a dedicated data room on the Company's cloud storage platform. CG plant managers are responsible for ensuring provision of accurate data, while the Senior Manager, Environmental Sustainability and Carbon Accounting, is responsible for reviewing and consolidating the data.

6.0 SCOPE 1 EMISSIONS DATA COLLECTION AND CALCULATION

Data collection

Activity Data

For Scope 1 GHG emissions calculation and reporting, the following data points should be collected monthly:

- Fuel input for each fuel type used by the asset
  - Quantity of fuel purchased by CG or by a third party for CG's direct consumption in:
    - Volumetric or mass
    - energy units
  - When fuel input is in volumetric or mass units - Fuel heating value (LHV or HHV). The heating value must match the fuel units
  - When there is on-site fuel storage, the asset must report the quantity of fuel stored at the beginning of the year and at the end of the reporting period. Units must match the quantity of fuel units.

The assets must collect and provide supporting documentation for the reported fuel input. The supporting documentation can be the following, ranked from most desirable to least desirable:

Quantity of fuel

- On-site measurement when performed with a properly calibrated measurement device. The asset must provide a calibration certificate when using this option, and the measurement must be recorded in CG's SCADA or similar system. The measurement should be ASTM or ISO compliant.
- Invoice for quantity of fuel purchased
- Report/bulletin or other document from the fuel supplier
- When fuel supply is not ContourGlobal's responsibility – a signed document from CG's counterparty for the amount of fuel that CG has received.

When both onsite measurement and commercial documents (invoices, bulletins) are available, the asset should compare both values and confirm that the values from the onsite measurement and commercial documents are equal ± combined measurement uncertainty of CG's metering and the commercial metering of CG's supplier.

Fuel LHV/HHV

Fuel sampling and analysis are performed to determine the heating or calorific value and carbon content of the fuels consumed in stationary combustion units. In some cases, it may also be necessary to determine the moisture content of fuels and the density of gaseous fuels to convert volumetric fuel flow meter data to units of mass.

- Fuel sampling and analysis CG's fuel can be performed by the Company, through certified and properly calibrated measurement devices and/or internal laboratory, fuel suppliers or external laboratories
  - As-consumed via a pipeline or belt feed
  - As-delivered (e.g., ship load, truck load, rail load, discrete purchase through pipeline)
  - From storage tank after each fuel addition
- Information on fuel quality provided by the supplier
- Competent Authority in cases when there is local regulation for CO2 emissions calculation
- IPCC 2006 guidelines, Volume 2, Chapter 2

Fuel storage

- Our accounting system
- Internal reports

Quantity of released gases from equipment and processes (fugitive emission)

In the Company's operations, these kinds of emissions usually come from HVAC system leakages (refrigeration agents – HFCs) and electrical equipment leakages (SF6). However, assets should screen for sources of CFC, HCFC, PFC, NF_3,and include those gases in their calculations, if present. Note that refrigeration leakages from Company-owned vehicles and machinery should also be included in CG's fugitive emissions and all identified release should be reported as environmental incidents as per CG's applicable internal policies and procedures.

Leakages are measured by the amount of gas used to refill the equipment, evidenced by repair protocol from the service company. In cases when equipment is replaced, the entire amount of gas as per the manufacturer's manual is considered leaked.

When recording leakages, the type of leaked gas also must be recorded and reported.

Sorbent consumption

Assets that operate a wet Flue Gas Desulphurization Plant (wet FGD) should also calculate CO_2 emissions resulting from the post-combustion treatment of fuel gases. Sorbent consumption should be:

- Measured based on onsite scales that measure mass glow, properly calibrated, and using ASTM or ISO measurement standards.
- Calculated based on supplier invoices and beginning and end period stock

Company owned vehicles and heavy machinery activity data

As per the GHG protocol, emissions from **Company-owned** (not leased or third-party owned and operated) vehicles and machinery (front loaders, bulldozers etc.) must be reported in Scope 1.

Company owned vehicles

Activity data for Company owned vehicles can be:

- Fuel usage/distance travelled
  - In kilograms/tons (or equivalent)
  - In liters/cubic meters (or equivalent)
  - If fuel data is not available – distance travelled (in miles or kilometers, depending on the available emission factor)
- Type of fuel
  - Gasoline and percentage of biofuel
  - Diesel and percentage of biofuel
  - LPG
  - CNG

Company owned heavy machinery

Activity data for Company owned heavy machinery can be:

- Fuel usage
  - In kilograms/tons (or equivalent)

    - In liters/cubic meters (or equivalent)
- Type of fuel
    - Gasoline and percentage of biofuel
    - Diesel and percentage of biofuel
    - LPG
    - CNG

There are available methodologies based on hp-h or kWh of work, however, CG believes that the most accurate results can be reached by using the quantity of fuel consumed. If the assets want to use alternative methodologies, this must be addressed to Senior Manager, Environmental Sustainability and Carbon Accounting.

Emission factors, oxidation factors and GWP

Emission factors for stationary combustion

Emission factors are usually provided or calculated in quantity of GHG per unit of energy, in rare emission factors can also be expressed in quantity of GHG per quantity of fuel.

It is widely accepted, by reputable organizations, that during combustion of fuel there are mainly three GHGs emitted:

- CO2
- CH4
- N2O

Emission factors for the abovementioned GHGs should be sourced from (ranked from most desirable to least desirable):

- Calculated based on specific fuel properties for each type of fuel. Such calculations are usually performed only for CO_2 emission factor as N_2O and CH_4 are not linked only to chemistry but combustion efficiency, fuel stability, combustion temperature and efficiency.
- Local Authority (Environmental Authorities in each EU country, US EPA, etc.)
- Internationally recognized frameworks/guidelines (IPCC 2006 Guidelines, Volume 2, Chapter 2)

Emission factors for sorbent (limestone and dolomite) consumption

Emission factors for carbonates contained in limestone (as the mixture of limestone and dolomite is commonly referred to in the industry) are calculated based on chemical reactions. Limestone ($CaCO_3$) has a molar mass of approximately 100 g/mol, while CO_2 has a molar mass of approximately 44 g/mol, which means that for each kg of $CaCO_3$ consumed there will be 0.44 kg of CO_2 created (assuming 100% reaction efficiency). $MgCO_3$ has a molar mass of approximately 84.31 g/mol, and, as already stated, CO_2 has a molar mass of approximately 44 g/mol, which means that for each kg of $MgCO_3$ consumed, approximately 0.522 kg of CO_2 will be emitted.

Emission factors for mobile combustion (for company owned vehicles and heavy machinery)

Emission factors for mobile combustion are usually provided or calculated in quantity of GHG per unit of energy or quantity of GHG per distance travelled.

It is widely accepted, by reputable organizations, that during combustion of fuel there are three GHGs emitted:

- Combustion CO_2
- Non-combustion CO_2 (from urea use for example in catalytic converters of diesel cars)
- CH_4

- N_2O

Emission factors for the abovementioned GHGs should be sourced from (ranked from most desirable to least desirable):

- Local Authority (Environmental Authorities in each EU country, US EPA, etc.)
- Internationally recognized frameworks/guidelines (IPCC 2006 Guidelines, Volume 2, Chapter 3)

Oxidation factors

Oxidation factor accounts for the incomplete combustion of the used fuel and more specifically unburned carbon as unburned carbon leads to lower CO_2 emissions.

IPCC recommends the use of oxidation factor of 1 for liquid and gaseous fuels. For hard fuels such as coal, the IPCC notes that the oxidation factor can be significantly lower than 1, and the reporting asset can perform calculations to determine the actual value if data is available.

An oxidation factor can be sourced from (ranked from most desirable to least desirable):

- Calculated oxidation factors for specific technology and fuel
- Local Authority
- Internationally recognized frameworks/guidelines
- Oxidation factor should be set to 1 if none of the above is available

Global Warming Potentials

Global Warming Potential (GWP) measures the heat-trapping ability of a greenhouse gas compared to carbon dioxide (CO_2) over a specific time, typically 100 years.

The assets should use the GWP values provided by GHG Protocol (which are based on IPCC but are presented in a more user-friendly way) – Link to GHG Protocol GWP Values

When the used gas is a blend, please use Table 7.8 in IPPC, Volume 3, Chapter 7 to determine its composition and use a weighted average between each component to calculate the blend of GWP.

Scope 1 GHG calculations

The combustion CO_2 emissions are calculated with the following formula:

$$\textbf{Net } CO_2 \textbf{ Emissions} = \textbf{Fuel consumption} * EF_{CO2} * \textbf{OF} - CO_2 \textbf{ Captured}$$

where:

- Net CO_2 emissions are the tons of CO_2 emitted to the atmosphere
- Fuel consumption is the consumed fuel in TJ or equivalent unit. In cases where fuel consumption source data is not in energy units:

$$\textbf{Fuel consumption} = \textbf{Fuel Quantity (mass or volumetric)} * \textbf{Heating Value (mass or volumetric)}$$

- EF_{CO2} is the emission factor for the respective fuel in tCO_2 per TJ or tCO_2/t of fuel input
- OF – Oxidation factor is the fraction of carbon that is oxidized during combustion

- CO_2 Captured – CO_2 that is captured from the flue gases[2]

The combustion CO2e emissions from CH4 are calculated with the following formula:

CO_2e CH4 Emissions = Fuel consumption * EF_{CH4} * GWP_{CH4}

where:

- CO_2e CH4 Emissions are the tons of CO_2 equivalent emissions emitted to the atmosphere as CH4
- Fuel consumption is the consumed fuel in TJ or equivalent unit. In cases where fuel consumption source data is not in energy units:

Fuel consumption = **Fuel Quantity (mass or volumetric) * Heating Value (mass or volumetric)**

- EF_{CH4} is the emission factor for the respective fuel in tCH_4 (or equivalent) per TJ of fuel input
- GWP_{CH4} is the Global Warming Potential of fossil CH4 equal to 29.8

Note that the oxidation factor is not applicable here as CH4 emissions are often the result of incomplete combustion, and this inefficiency is already taken into account in the applicable emission factor.

The combustion CO2e emissions from N_2O are calculated with the following formula:

CO_2e N2O Emissions = Fuel consumption * EF_{N2O} * GWP_{N2O}

where:

- CO_2e N2O Emissions are the tons of CO_2 equivalent emissions emitted to the atmosphere as N_2O
- Fuel consumption is the consumed fuel in TJ or an equivalent unit. In cases where fuel consumption source data is not in energy units:

Fuel consumption = **Fuel Quantity (mass or volumetric) * Heating Value (mass or volumetric)**

- EF_{N2O} is the emission factor for the respective fuel in tN_2O (or equivalent) per TJ of fuel input
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

Note that the oxidation factor is not applicable here as N2O emissions are often the result of incomplete combustion, and this inefficiency is already taken into account in the applicable emission factor.

The Fugitive CO_2 emissions are calculated with the following formula:

CO_2e fugitive Emissions = Gas emitted * GWP

where:

- CO_2e fugitive Emissions are the tons of CO_2 equivalent emitted form process leakages
- Gas emitted is the amount of HFC, CFC, HCFC, PFC, NF_3, and SF_6 emitted. The emitted amounts are measured by the quantities of gases that were used to refill or top up the equipment
- GWP is the global warming potential of the emitted gas

[2] Our Ploiesti, Nogara and Benin assets are capturing CO_2 from the flue gasses and are producing liquid CO_2 for use in the food industry, we are offsetting this amount from our Scope 1 emissions as it is not emitted to the atmosphere.

Company owned vehicles CO2 emissions

CO_2e COV Emissions = Activity data * (EF_{CO2} + EF_{CH4}*GWP_{CH4} + EF_{N2O}* GW $_{N2O}$)

- **CO_2e COV Emissions** are CO2 equivalent CO2 emissions emitted form company owned vehicles and heavy machinery
- Activity data can be fuel consumption or distance travelled as explained in the Activity Data section
- EF_{CO2} is the emission factor for the respective fuel in tCO_2 (or equivalent) per appropriate unit based on the Activity Data unit
- EF_{CH4} is the emission factor for the respective fuel in tCH_4 (or equivalent) per appropriate unit based on the Activity Data unit
- EF_{N2O} is the emission factor for the respective fuel in tN_2O (or equivalent) per appropriate unit based on the Activity Data unit
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

7.0 SCOPE 2 DATA COLLECTION AND CALCULATION

ContourGlobal's indirect Scope 2 emissions calculation methodology is based on the GHG Protocol Scope 2 Guidance and GHG Protocol Corporate Reporting Standard and includes location-based and marked-based calculations.

The indirect location-based Scope 2 CO_2 emissions are calculated with the following formula:

Scope 2 CO_2 Emissions (location-based) = Purchased Energy * EF $_{location\text{-}based}$

where:

- Purchased Energy is the amount of energy that CG consumes in its operational assets, provided by an external party, usually a utility provider or energy generation company, measured in MWh or equivalent. Purchased energy should be evidenced by an invoice from the supplier or commercial metering recognized by the supplier.
- EF $_{location\text{-}based}$ is the emission factor associated with the consumed energy based on the region/country where the asset is located, measured in tCO_2e/MWh

Location- based emission factors sources have a hierarchy from most desired to least desired based on their precision:

Location-based emission factors hierarchy

1. Regional or subnational emission factors
2. National production emission factors

The indirect market-based Scope 2 CO_2 emissions are calculated with the following formula:

Scope 2 CO_2 Emissions (market-based) = Purchased Energy * EF $_{market\text{-}based}$

where:

- Purchased Energy is the amount of energy that CG consumes in its operational assets, provided by an external party, usually a utility provider or energy generation company, measured in MWh or equivalent.
- EF $_{market\text{-}based}$ is the emission factor associated with the consumed energy based on the region/country where the asset is located/ measured in tCO_2e/MWh

Market-based emission factors sources have a hierarchy from most desired to least desired based on their precision:

Marked-based emission factors hierarchy

1. Energy attribute certificates
2. Contracts
3. Supplier/Utility emission rates
4. Residual mix
5. Other grid-average emission factors

8.0 SCOPE 3 DATA COLLECTION AND CALCULATION

Scope 3 emissions are resulting from ContourGlobal's upstream value chain activities (purchased goods and services & capital goods, purchased fuel, waste generated from operations, business travel, employee commuting, upstream transportation and distribution, upstream leased assets) and downstream value chain activities (downstream transportation and distribution, processing of sold products, use of sold products, end-of-life treatment of sold products, downstream leased assets, franchises, investments). Most of our Scope 3 emissions are calculated on a corporate level and assets are not required to perform these calculations but provide inputs for the following:

- Employee commuting data
- Upstream leased assets (offices) energy consumption data
- Liquid CO_2 revenue for businesses that produce and sell liquid CO_2

Details for our Scope 3 calculation methodology can be found below. This section provides explanations for all categories and highlights instances where data should be provided from assets.

Category 1 – Purchased Goods and Services

Category 1 emissions are calculated at a corporate level, and data is **not required** from individual assets.

The calculation of emissions from purchased goods and services utilizes a spend-based methodology with emission factors from the USA EPA that are based on Environmentally-Extended Input-Output ("EEIO") models. The activity data is obtained from CG's accounting system. Calculations are based on invoiced values for goods and services for the reporting year. Emission factors are assigned based on material code assigned to the purchase order to which invoices are attached.

The following formula is used to calculate the tCO_2e Category 1 emissions:

$$\textbf{Category 1 } tCO_2e = \sum_{i=0}^{n} AD_{1\ i} * EF_{iCO2} + AD_{1\ i} * EF_{iCH4} * GWP_{CH4} + AD_{1\ i} * EF_{iN2O} * GWP_{N2O} + AD_{1\ i} * EFi_{\ other}$$

where:

- Category 1 tCO_2e –tons of CO_2e emissions resulting from purchased goods and services
- $AD_{1\ i}$ – Activity Data for the i type of goods and services – the amount of USD spend for different type of goods and services in the reporting year
- EF_{iCO2} – CO_2 emission factor for the i type of goods and services in tCO_2/USD
- EF_{iCH4} – CH_4 emission factor for the i type of goods and services in tCH_4/USD
- EF_{iN2O} – N_2O emission factor for the i type of goods and services in tN_2O/USD
- $EF_{i\ other}$ – emission factor for other greenhouse gasses (HFCs, CFCs, SF6, NF3) for the i type of goods and services in tCO_2e/USD
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

Category 2 – Capital Goods

Category 2 emissions are calculated at a corporate level, and data is **not required** from individual assets.

The calculation of emissions from capital goods purchases utilizes a spend-based methodology with emission factors from USA EPA that are based on Environmentally-Extended Input-Output ("EEIO") models. The activity data for the reporting year was obtained from CG's accounting system. Calculations are based on invoiced values for

goods and services for the reporting year. Emission factors are assigned based on material code assigned to the purchase order to which invoices are attached. Distinction between CAPAEX and OPEX (which is Category 1) is made based on the G/L account number assigned to the purchased order.

The following formula is used to calculate the tCO_2e Category 2 emissions:

$$\textbf{Category 2 } tCO_2e = \sum_{i=0}^{n} AD_{1\ i} * EF_{iCO2} + AD_{1\ i} * EF_{iCH4} * GWP_{CH4} + AD_{1\ i} * EF_{iN2O} * GWP_{N2O} + AD_{1\ i} * EFi_{\ other}$$

where:

- Category 2 tCO_2e –tons of CO_2e emissions resulting from capital goods purchase
- $AD_{1\ i}$ – Activity Data for the i type of goods – the amount of USD spent for different type of goods in the reporting year
- EF_{iCO2} – CO_2 emission factor for the i type of goods in tCO_2/USD
- EF_{iCH4} – CH_4 emission factor for the i type of goods in tCH_4/USD
- EF_{iN2O} – N_2O emission factor for the i type of goods in tN_2O/USD
- $EF_{i\ other}$ – emission factor for other greenhouse gasses (HFCs, CFCs, SF6, NF3) for the i type of goods in tCO_2e/USD
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

Category 3 – Fuel- and Energy-related activities not included in Scope 1 and Scope 2

Category 3 emissions are calculated at a corporate level. Almost all of the activity data used for Category 3 calculations are reported for Scope 1 and 2 emissions (fuel input, purchased electricity). Additional data is **not required** from individual assets.

The calculation of emissions resulting from fuel-and-energy-related activities for the assets under CG's operational control is based on the quantity of purchased fuels and electricity for operations as activity data. It should be noted that the emissions from electricity that CG purchases from third parties for its operations are already calculated as Scope 2, however, Scope 3, Category 3 captures the emissions associated with the transmission and distribution losses for the electricity that CG purchases from third parties. Emission factors for the calculations are from the following sources:

- For Coal
  - IPCC 2006 Guidelines for fugitive emissions during coal mining.
  - Specific electricity consumption per tonne of coal mined, which is based on the mine annual report information, as activity data and CO2 emission factor for the electrical grid in Bulgaria (source European Environmental Agency)
- For LFO – UK DEFRA emission factor for gas oil well-to-tank
- For HFO – UK DEFRA emission factor for fuel oil well-to-tank
- For natural gas – UK DEFRA emission factor for natural gas well-to-tank
- For purchased electricity – market-based emission factor used for Scope 2 calculations for each asset, transmission and distribution losses sourced from the World Bank, well-to-tank emission factors from UK DEFRA

The selected method to determine emission associated with coal mining is better suited for CG's case as the only coal plant under CG's operation is mine mouth (located adjacent to the mine) and the transportation is exclusively on conveyor belts which consume electricity. To cover any and all electrical consumption associated with the coal

produced for CG's power plant, CG has also calculated the specific electrical consumption, per tonne of coal produced, of the mine and then multiplied it by CG's purchased quantity and the emission factor for the grid in Bulgaria.

Category 3 tCO_2e fuel = AD_c*EF_c+SC_{cm}*AD_c*GEF_{bg} + AD_{LFO}*EF_{LFO} + AD_{HFO}*EF_{HFO} + AD_{NG}*EF_{NG}

- Category 3 tCO_2e – tons of CO_2e emissions resulting from Fuel-and-energy-related activities not reported in Scope 1 and Scope 2
- AD_c – Activity Data for coal – the amount of coal consumed in tonnes
- EF_c - Emission Factor for coal (mining) – the amount of tCO2e emissions resulting from surface coal mining. The EF used is the upper limit provided by IPCC (2 m^3CH_4/t, converted to tCH_4/t using conversion factor provided by IPCC and the converted to tCO2e using the GWP of CH_4 as per IPCC Fifth Assessment Report).
- SC_{cm} – coal mine specific electricity consumption In MWh/t. The specific consumption is calculated based on the quantity of purchased electricity by Maritsa East mine in 2021 and the total amount of coal produced by Maritsa East mine in 2021 (data sourced from Maritsa East mine annual report)
- GEF_{bg} – Bulgaria grid emission factor sourced from the European Environmental Agency, tCO_2/MWh
- AD_{LFO} – Activity Data for LFO – the amount of LFO consumed in cubic meters
- EF_{LFO} – Well-to-tank emission factor for gas oil sourced from UK DEFRA, tCO_2/m^3
- AD_{HFO} – Activity Data for HFO – the amount of HFO consumed in tonnes
- EF_{HFO} – Well-to-tank emission factor for fuel oil sourced from UK DEFRA, tCO_2/m^3
- AD_{NG} – Activity Data for natural gas – the amount of natural gas consumed in m^3
- EF_{NG} – Well-to-tank emission factor for natural gas sourced from UK DEFRA, tCO_2/m^3

Category 3 tCO_2e electricity = (Purchased Energy + TD $_{energy}$) * WTT $_{electricity}$ + TD $_{energy}$ * EF $_{market\text{-}based}$

- Purchased Energy is the amount of energy that CG consumes in its operational assets, provided by an external party, usually a utility provider or energy generation company, measured in MWh or equivalent.
- TD $_{energy}$ is the transmission and distribution losses for the country/region where the purchased energy is consumed, measured in MWh or equivalent

$$\textbf{TD}_{\textbf{energy}} = \frac{\textbf{Purchased Energy}}{1 - \textbf{T\&D}_{\textbf{losses}}}$$

- T&D $_{losses}$ is the transmission and distribution losses in %
- WTT $_{electricity}$ is the well-to-tank emission factor for the generation of the purchased energy, measured in tCO2e/MWh
- EF $_{market\text{-}based}$ is the emission factor associated with the consumed energy based on the region/country where the asset is located/ measured in tCO2e/MWh

Category 3 tCO_2e = Category 3 tCO_2e fuel + Category 3 tCO_2e electricity

Category 4 – Upstream Transportation and Distribution

The calculation of emissions from upstream transportation and distribution utilizes a spend-based methodology with emission factors from USA EPA that are based on Environmentally-Extended Input-Output ("EEIO") models. The activity data is obtained from CG's accounting system. Calculations are based on invoiced values for upstream transportation and distribution, identified by material code, for the reporting year.

The following formula was used to calculate the tCO_2e Category 4 emissions:

Category 4 tCO_2e $= \sum_{i=0}^{n} AD_{1\ i} * EF_{iCO2} + AD_{1\ i} * EF_{iCH4} * GWP_{CH4} + AD_{1\ i} * EF_{iN2O} * GWP_{N2O} + AD_{1\ i} * EFi_{\ other}$

where:

- Category 4 tCO_2e –tons of CO_2e emissions resulting from upstream transportation and distribution
- $AD_{1\ i}$ – Activity Data for the i type of upstream transportation and distribution – the amount of USD spent for different type upstream transportation and distribution in the reporting year
- EF_{iCO2} – CO_2 emission factor for the i type of upstream transportation and distribution in tCO_2/USD
- EF_{iCH4} – CH_4 emission factor for the i type of upstream transportation and distribution in tCH_4/USD
- EF_{iN2O} – N_2O emission factor for the i type of upstream transportation and distribution in tN_2O/USD
- $EF_{i\ other}$ – emission factor for other greenhouse gasses (HFCs, CFCs, SF6, NF3) for the i type of goods in tCO_2e/USD
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

Category 5 – Waste Generated in Operations

The calculation of emissions from waste generated in operations utilizes the IPCC 2006 guidelines, Volume 4 model. The activity data is waste generated from operations from 2015 – Reporting Year, as the model considers that disposed waste generates GHG gases for a certain number of years after initial disposal. The degradable organic carbon percentage is the model default for bulk waste, the methane generation rate assumes worst-case scenario (moist and wet tropical climate). The waste is categorized as industrial for the purposes of the IPCC model calculation.

Category 6 – Business Travel

The calculation of emissions from business travel utilizes a spend-based methodology with emission factors from USA EPA that are based on Environmentally-Extended Input-Output (“EEIO”) models. The activity data for the reporting year was obtained from our accounting system.

The following formula was used to calculate the tCO_2e Category 6 emissions:

Category 6 tCO_2e $= \sum_{i=0}^{n} AD_{1\ i} * EF_{iCO2} + AD_{1\ i} * EF_{iCH4} * GWP_{CH4} + AD_{1\ i} * EF_{iN2O} * GWP_{N2O} + AD_{1\ i} * EFi_{\ other}$

where:

- Category 6 tCO_2e –tons of CO_2e emissions resulting from business travel
- $AD_{1\ i}$ – Activity Data for the i type of business travel expense – the amount of USD spent for different types of upstream transportation and distribution in the reporting year
- EF_{iCO2} – CO_2 emission factor for the i type of business travel expense in tCO_2/USD
- EF_{iCH4} – CH_4 emission factor for the i type of business travel expense in tCH_4/USD
- EF_{iN2O} – N_2O emission factor for the i type of business travel expense in tN_2O/USD
- $EF_{i\ other}$ – emission factor for other greenhouse gasses (HFCs, CFCs, SF6, NF3) for the i type of goods in tCO_2e/USD
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

It is expected that in the future ContourGlobal will receive Category 6 emissions directly from our corporate travel and expense management platform (Navan)

Category 7 – Employee Commuting

For the calculation of Category 7 businesses **are required** to provide data for their employees aggregated annual commuting. The final calculations are performed at a corporate level using emission factors from US EPA. Businesses should provide annual distance travelled by employees to and from work in miles for different vehicle types (car or bus). Note that if the vehicle is owned by the company, the associated emissions should already be reported in Scope 1 therefore businesses should report distance and vehicle type only for vehicles that are private, leased or the service is provided by a third party.

The calculation of emissions from employee commuting is based on distance travelled in the reporting year. The activity data should be estimated based on number of employees, trips per year and average distance travelled for the employees of each of our businesses, Emission factors for the types of transport were obtained from USA EPA.

$$\textbf{Category 7 } tCO_2e = AD_7 * EF_{7\ CO2} + AD_7 * EF_{7\ CH4} * GWP_{CH4} + AD_7 * EF_{7\ N2O} * GWP_{N2O}$$

- Category 7 tCO_2e –tons of CO_2e emissions resulting from employee commuting
- AD_7 – Activity Data – miles travelled from and to work
- $EF_{7\ CO2}$ – CO_2 emission factor in tCO_2/vehicle-mile
- $EF_{7\ CH4}$ – CH_4 emission factor in tCH_4/ vehicle-mile
- $EF_{7\ N2O}$ – N_2O emission factor in tN_2O/vehicle-mile
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

Category 8 – Upstream Leased Assets

Businesses **are required** to provide data and calculate their Category 8 emissions.

For CG's business operations, leased assets could be vehicles, heavy machinery and offices. Other assets that could fall into this category will be discussed on case-by-case basis.

For activity data, emission factors, and calculation methodology for leased vehicles and heavy machinery, please follow the guidance provided in Scope 1 Emissions Data Collection and Calculation chapter of this document. ContourGlobal must collect and report leased vehicles and heavy machinery using the methodology applied for its own vehicles and heavy machinery by changing the emissions categorization from Scope 1 to Scope 3, Category 8.

For offices, businesses must collect energy consumption data and apply Scope 2 Data Collection and Calculation methodology in this document to calculate emissions.

Category 9 – Downstream Transportation and Distribution

This category is currently considered not applicable for ContourGlobal's business due to the nature of its product – electricity, heat, chilled water and liquid CO2 and CG's operational control boundary. The electricity and heat losses in facilities under CG's operational control are considered in our Scope 1 emissions calculation along with any auxiliary consumption for fluid transportation. If the energy consumed by equipment is purchased from the grid, it is included in CG's Scope 2 emissions. The liquid CO2 transportation is via direct connection with the main off taker and the electricity auxiliary consumption is considered in CG's Scope 1/Scope 2 emissions and the relatively small amounts of liquid CO2 that is transported from CG's site via trucks is purchased by a third party at the site, CG is not responsible for the transportation and the location of the intermediate product user is unknown.

The emissions from liquid CO2 sold to third parties via trucks are excluded due to:

- Most notably due to the uncertainly of the end user location as per Section 5.6 of the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (transportation and distribution of **intermediate** product between the point of sale by the reporting company and the business customers when the eventual end use of the intermediate product is unknown)
- Low overall quantity of liquid CO2 transported by trucks.

Category 10 – Processing of Sold Products

Businesses are **not required** to provide additional data for Category 10 calculations which will be calculated at a corporate level.

The calculation of emissions associated with processing of sold products include emissions associated with the capture and utilization of food-grade CO2 from CG's Solutions portfolio and emissions from processing of sold gypsum which is a byproduct from a flue gas desulphurization process.

$$\textbf{Category 10 } tCO_2e = AD_{10}*EF_{10\ CO2} + AD_{10}*EF_{10\ CH4}*GWP_{CH4} + AD_{10}*EF_{10\ N2O}*GWP_{N2O}$$

- Category 10 tCO_2e – tons of CO_2e emissions resulting from processing of sold products
- AD_{10} – Activity Data – revenues from sold CO_2 in USD
- $EF_{10\ CO2}$ – CO_2 emission factor for compressed gases value chain in tCO_2/USD
- $EF_{10\ CH4}$ – CH_4 emission factor for compressed gases value chain in tCH_4/ USD
- $EF_{10\ N2O}$ – N_2O emission factor for compressed gases value chain in tN_2O/USD
- GWP_{CH4} - CH_4 Global Warming Potential tCO_2e/tCH_4 as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)
- GWP_{N2O} – N_2O Global Warming Potential tCO_2e/tN_2O as per GHG protocol 100-year time horizon values of the latest IPCC report (AR6 or Sixt Assessment Report)

The CO_2 emissions from processing of sold gypsum are based on the gypsum processing plant CO2 emissions report. This report is verified by a third party and approved by the Bulgarian Executive Environmental Agency.

Category 11 – Use of Sold Products

Businesses are **not required** to provide additional data for Category 11 calculations.

The calculation of emissions associated from the use of products sold includes emissions associated with the capture and utilization of food-grade CO2 from our Solutions portfolio. CG assumes that 100% of the sold CO_2 is emitted in the Company's downstream value chain.

Category 12 – End-of-Life Treatment of Sold Products

Category 12 emissions are not applicable for CG's business due to the nature of CG's products (electricity, heat energy, CO2 and gypsum). The CO2 is assumed as 100% emitted to the atmosphere and covered in Category 11, and gypsum is an inert product, and it is not biologically degradable and therefore will not produce any greenhouse gases when disposed of as waste.

Category 13

This category is not applicable for CG's business as the emissions associated with operational leases are reported in CG's Scope 1 and Scope 2 emissions.

Category 14

Category 14 emissions are not applicable for CG's business as CG is not a franchisor.

Category 15

In Category 15, CG is reporting emissions of businesses that are not under its operational control, but where CG has an equity investment. The emissions represent direct combustion emissions and indirect emissions from purchased electricity. Direct combustion emissions are calculated based on each fuel energy input in TJ and emission factors were sourced from IPCC Guidelines, Chapter 2. Indirect emissions from purchased electricity were calculated based on purchased electricity data and applying our Scope 2 methodology.

$$\mathbf{DC_{15}\ tCO_2e = \sum_{i=0}^{n} AD_{DC\ 15\ i} * EF_{DC\ 15\ i} * GWP_i}$$

- DC_{15} tCO_2e –tons of CO_2e emissions resulting from direct combustion of fuel
- $AD_{DC\ 15\ i}$ – Direct Combustion Activity Data - fuel energy input for LFO, HFO and coal in TJ
- $EF_{DC\ 15\ i}$ – CO_2, N_2O and CH_4 emission factor for fuel used by the asset

$$\mathbf{IE_{15}\ tCO_2e = AD_{E\ 15} * EF_{E\ 15\ CO2}}$$

- IE_{15} tCO_2e – tons of CO_2e emissions resulting from electricity purchased
- $AD_{E\ 15}$ – Purchased electricity activity data in MWh
- $EF_{E\ 15\ CO2}$ - CO_2 emission factor for purchased electricity in tCO_2/MWh

$$\mathbf{Category\ 15\ tCO_2e = [DC_{15}\ tCO_2e + IE_{15}\ tCO_2e] * ES}$$

- Category 15 tCO_2e - tons of CO_2e emissions resulting from investments
- DC_{15} tCO_2e –tons of CO_2e emissions resulting from direct combustion of fuel
- IE_{15} tCO_2e – tons of CO_2e emissions resulting from electricity and fuel purchases (excluding combustion)
- ES – our proportional equity share in the investee, %