DP WORLD

GHG ACCOUNTING METHODOLOGY

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Organisational boundaries

Our business includes ports and terminals with container and non-container activities, as well marine service operations encompassing ship piloting, tugging services, ship management, crew transfer ferries operations, container vessels feedering operations, and offshore activities logistics and economic zones such as leasing activities related to land, warehouses, offices.

Furthermore, within our Logistics Pillar, we offer Freight Management, Contract Logistics, Freight Forwarding, and Market Access.

Operational control approach

DP World use the "Operational Control Approach" (as defined by the GHG Protocol) for reporting carbon emissions. It is felt to represent the most proactive approach to measuring and reporting carbon emissions.

Operational Control means that DP World either has management control or the ability to make and/or influence management decisions in respect of introducing and implementing policies in respect of the "operations and activities" within the business.

Under this approach, DP World will account for the GHG Emissions (Scope 1 and Scope 2) from activities in operating entities over which it has Operational Control.

Operating entities included in carbon reporting

DP World includes operating entities in its organisational boundary for carbon reporting based on the following rules:

- Container and non-container operating entities: operating entities with DP World's GHG emissions operational control.
- 12-months data set: The operating entities are operational as at 1st January in the reporting year being assessed. This is so that each entry in the carbon reporting has a full 12-months data.
- Vessel fleet GHG emission: will be reported based on measurements of consumption which is accepted by GHG protocol - please refer to GHG protocol.

Exclusions

While DP World is committed to comprehensive carbon reporting, certain exclusions from our Scope 1 and 2 GHG emissions reporting are necessary to maintain accuracy and transparency.
The following operating entities and activities are currently excluded from our formal annual carbon reporting within the organizational boundary:

- Operating entities duration exclusion: Operating entities not under DP World's ownership or not operational for the entire 12 months of the reporting year. It's important to note that vessel operations will be exempt from the 12-month reporting boundaries.
- Sites under development: Sites currently under development, encompassing those in the planning and/or construction phases.
- Customer-controlled fuel assets: Assets/entities where fuel is controlled and paid for by customers or lessees.

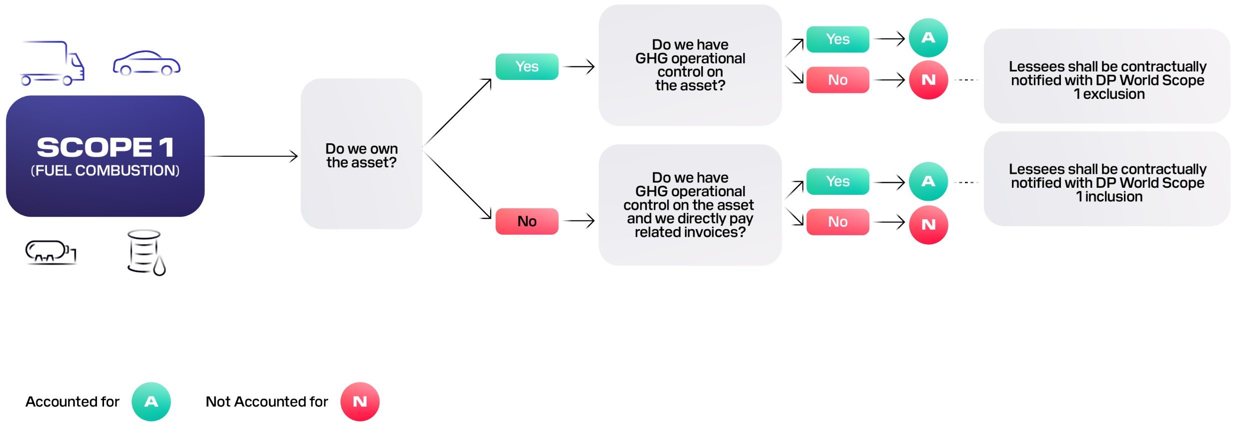
- **Tenant energy bills exclusion:** Instances where DP World is the tenant, and energy bills are considered in the annual contract or paid entirely by the landlord as part of the agreement.
- **DP World operations in customer facilities:** Instances where DP World operates within a customer facility, such as labour supply to a customer facility or customer facility management. In such cases, where DP World lacks control over energy consumption in the facility and related bills are paid by the customer, these operations are excluded.

These exclusions are carefully considered to uphold the accuracy and reliability of our carbon reporting, ensuring a comprehensive yet precise overview of DP World's environmental impact.

Accounting boundaries diagram

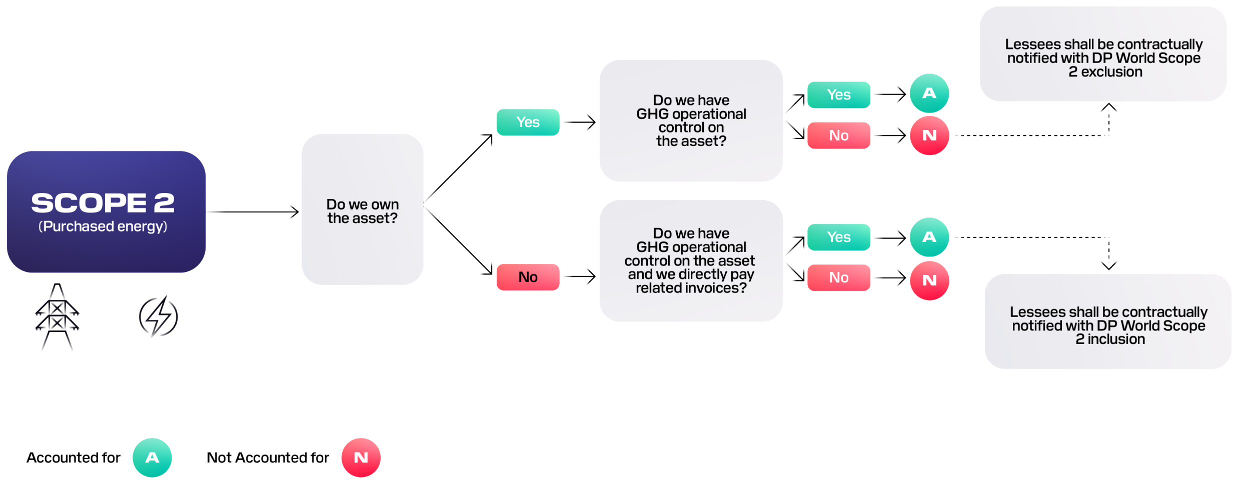
Scope 1 accounting boundaries

Mobile & stationary fuel combustion



Scope 2 accounting boundaries

Electricity purchase



Emission Factors

DP World's Carbon Footprint uses Emission Factors (EF) following GHG Protocol guidelines. CO2 emissions from purchased electricity are calculated using direct procured electricity emission factor or, if not available, national grid emission factors or, if not available, IEA Emission Factors. Local or regional EFs from the site's country are utilized when published, and IEA EFs are used as per GHG Protocol if local ones are not available.

All fuel is reported under stationary category and the EFs for stationary sources from IPCC and DEFRA as applicable are used to calculate CO2e emissions.

Refrigerant loss

At each operating entity, equipment using refrigerants may include HVAC systems and vehicle air conditioning systems in fleet vehicles. It is anticipated that refrigerant leakage will be a small portion of the overall carbon emission inventory and don't meet the DP World thresholds for reporting.

Refrigerant gas losses resulted from PTI (Pre-Trip Inspection) of reefer containers are excluded as it's a chargeable service requested by the container operator. And we don't have any operational control over it.

Location & market-based Scope 2 emission factors

Market-Based Scope 2 analysis follows a logical framework aimed at accurately reflecting the environmental impact of energy utilisation.

When a site relies on renewable energy from:

- Direct Procurement from Renewable Energy Providers: This involves sourcing renewable energy directly from renewable energy providers or generators. This could include purchasing electricity from renewable energy projects such as wind farms, solar parks, or hydroelectric plants. DP World entities can report the amount of renewable energy procured through these contracts.
- Renewable Energy Certificates (RECs) or Guarantees of Origin (GOs): RECs or GOs represent the environmental attributes of renewable energy generation separately from the electricity itself. DP World entities can purchase RECs or GOs to match their electricity consumption and claim the associated renewable energy attributes. This allows DP World entities to report their electricity consumption as being sourced from renewable energy, even if they consume conventionally sourced electricity.
- On-site Renewable Energy Generation: DP World entities may generate renewable energy on-site through the installation of solar panels, wind turbines, or other renewable energy systems. The electricity generated on-site can be reported as renewable energy consumption.
- Power Purchase Agreements (PPAs): PPAs involve long-term contracts between a renewable energy generator and a buyer (such as DP World). Through PPAs, DP World entities commit to purchasing the electricity generated by a renewable energy project at an agreed-upon price for a specified period. DP World entities can report the portion of their electricity consumption covered by PPAs as sourced from renewable energy.
- Green Tariffs or Renewable Energy Tariffs: Some utilities offer green tariffs or renewable energy tariffs, allowing customers to purchase electricity from renewable sources at a premium or through a specific rate structure. DP World entities opting for these tariffs can report the renewable energy portion of their electricity consumption. A zero-emission factor is judiciously applied, acknowledging the absence of carbon emissions associated with this source.

Location-Based Scope 2 is determined by employing emission factors in a hierarchical manner. Initially, the analysis considers the availability of emission factors from either Private Wire or the National Grid. Should these specific factors be unattainable, recourse is made to the International Energy Agency's (IEA) guidelines.

Scope 3

Scope 3 emissions are DP World's business-related emissions outside of its direct control, but which DP World can influence. Scope 3 emissions typically come from upstream and downstream activities that could include, for example, direct purchases of equipment (e.g., machinery, third party services, etc.) or indirect purchases of services (e.g., facility management, administrative and support activities, carrier insurance, etc.) as well as employee commuting and business travel, waste generated in operations and leased assets.

Scope 3 reporting boundary including emission sources, activities and calculation status

SCOPE 3 EMISSION CATEGORY	CALCULATION STATUS	EMISSION SOURCES	DP WORLD ACTIVITIES	COMMENTS
1. Purchased goods and services	Relevant, calculated	Indirect GHG emissions from the use of services from third parties to support operation activities.	Raw materials from purchasing vessels, trucks & chassis and machinery & third-party logistics. Packaging, office & IT equipment, personnel and administration.	
2. Capital goods	Relevant, calculated	Upstream emissions from fixed assets purchased and owned in the reporting year	Purchased machinery to perform operating activities, construction of new facilities, IT equipment, etc.	
3. Fuel-and energy-related activities (not included in Scope 1 & 2)	Relevant, calculated	Indirect GHG emissions from extraction, production and transportation of fuels used by DP World. Indirect GHG emissions from electricity Transmission and Distribution losses	Fuel used in machinery, vessels, and other equipment. Electricity consumed in DP World facilities.	
4. Upstream transportation and distribution	Relevant, calculated	Emissions from the transportation and distribution of products and transportation and distribution services	Outsourced transportation activities such as truck transportation, vessel hire, slot chartering and other freight transportation activities.	Emissions from downstream transportation is combined with upstream transportation.
5. Waste generated in operations	Relevant, calculated	Emissions from the disposal and treatment of waste generated	Waste generated in DP World	
6. Business travel	Relevant, calculated	Emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties and emissions from staying in hotels.	DP World travel for business purposes to visit clients, attend events, etc.	
7. Employee commuting	Relevant, calculated	Emissions from the transportation of employees between their homes and their worksites arising from several commuting mode (car, bus, rail, etc.).	DP World employee commuting mode from home to worksite within the different countries.	Calculation made using average method as a survey was not possible
8. Upstream leased assets (lessee)	Relevant, calculated	Emissions from the operation of assets that are leased in the reporting year and are not already included in scope 1 and 2 inventory	Facilities or terminals rent by DP World (lessee).	

SCOPE 3 EMISSION CATEGORY	CALCULATION STATUS	EMISSION SOURCES	DP WORLD ACTIVITIES	COMMENTS
9. Downstream transportation and distribution	Relevant, calculated – merged with Category 4			Emissions from downstream transportation is combined with upstream transportation.
10. Processing of sold products	Not relevant, not calculated			This category is not relevant to DP World's business activities & operations
11. Use of sold products	Not relevant, not calculated			This category is not relevant to DP World's business activities & operations
12. End-of-life treatment of sold products	Not relevant, not calculated			This category is not relevant to DP World's business activities & operations
13. Downstream leased assets (lessor)	Relevant, calculated	Emissions from the operation of assets owned by the company and leased to other entities that are not already included in scope 1 and 2 inventory.	Cost of sales related to sale of Land/Plots (lessor). Fuel consumed by vessels owned by DP World that are operated by a third-party.	
14. Franchises	Not relevant, not calculated			This category is not relevant to DP World's business activities & operations
15. Investments	Relevant, calculated	Emissions from investment done in the reporting year not already included in scope 1 and 2.		

Scope 3 calculation methodologies

CALCULATION APPROACH	CATEGORY	EQUATIONS	SOURCE OF EMISSION FACTORS
Spend-based	Cat 3: Purchased goods and services Cat 5: Upstream transportation and distribution Cat 9: Upstream leased assets (lessee) Cat 13: Downstream leased assets (lessor) (e.g. buildings) *	Quantity of money spend in expenditure category "x" in the reporting year (USD $) × EF mapped for expenditure category "x" ($kgCO_2e$/USD)	Supply Chain Greenhouse Gas Emissions Factors for US industries and Commodities from US Environment Protection Authority
Spend-based	Cat 2: Capital goods	Quantity of money spend in expenditure category "x" in the reporting year (USD $) × EF mapped for expenditure category "x" ($kgCO_2e$/USD)	Supply Chain Greenhouse Gas Emissions Factors for US industries and Commodities from US nvironment Protection Authority
Unit-based	Cat 3: Fuel-and energy-related activities (not included in Scope 1 & 2) Cat 13: Downstream Lease assets (e.g. P&O Maritime Logistics leased vessels)*	Quantity of fuel consumed (litre/year) × Well-to-Tank EF of fuel type ($kgCO_2e$/litre) Quantity of electricity purchased by country (kWh/year) × T&D EF by country ($kgCO_2e$/kWh)	UK Government GHG Conversion Factors for Company Reporting (DEFRA) IEA
Waste-type	Cat 5: Waste generated in operations	Waste quantity (kg/year) × EF of waste type and waste destination ($kgCO_2e$/tonnes of waste)	UK Government GHG Conversion Factors for Company Reporting (DEFRA)
Distance travelled	Cat 6: Business travel	Distance travelled by air (km/year) × EF with RF[1] of flight type (haul and class) ($kgCO_2e$/ passenger km) Distance travelled by land (km/year) × EF of fuel used per type of vehicle ($kgCO_2e$/ km)	UK Government GHG Conversion Factors for Company Reporting (DEFRA)
Number of employees	Cat 7: Employee commuting	$\sum$ Total average distance traveled per year per commuting mode (km/year) × EF of the given commuting mode ($kgCO_2e$/km)	UK Government GHG Conversion Factors for Company Reporting (DEFRA)
Revenue	Cat 15: Investments	Revenue in the reporting year (USD $) × DP World Ownership interest in the invested entity (%) × EF mapped for expenditure category "x" ($kgCO_2e$/USD)	Supply Chain Greenhouse Gas Emissions Factors for US industries and Commodities from US Environment Protection Authority

* Category 13. Downstream leased assets (lessor), follows spend-based approach and unit-based approach depending on the type of asset