

APPENDIX 2: GHG ACCOUNTING METHODOLOGY

The methodology is developed with the basis on the following standards:

- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance
- The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

With Reference to the GHG Protocol, the Group follows the principle of Relevance, Completeness, Consistency, Transparency, Accuracy to ensure that the reported information represents a faithful, true, and fair account of a company's GHG emissions.

Relevance	Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users – both internal and external to the company.
Completeness	Account for and report on all GHG emission sources and activities within the chosen inventory boundary. Disclose and justify any specific exclusions.
Consistency	Use consistent methodologies to allow for meaningful comparisons of emissions 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 GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.

This methodology is reviewed and maintained annually to ensure that it remains robust and aligned to industry standards. During the reporting period, there is no structural change to the GHG accounting approach, inputs, and assumptions of the Group.

On a fiscal year basis (1st January to 31st December), the Group consolidates its scope 1, 2 and 3 emissions of the four divisions (Ports, Infrastructure, Retail, Telecommunications). The Group's emission inventory comprises carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆), standardised in carbon dioxide equivalents (tCO₂e) using the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) GWP values on a 100-year period (GWP100).

Organisational boundary of the Group is determined using operational control approach, which considers emission sources that the Group has authority to mitigate by implementing operation policies and measures. All relevant GHG emissions sources within CKHH's organisational boundaries are identified and quantified.

The Group also reports on the intensity of Scope 1 and 2 emissions. The denominator is derived by the annual revenue of the four divisions in thousand Hong Kong dollars.

Scope 1 & 2 emissions

Scope 1 emissions

Description	Scope 1 emissions include fuel consumption from operational activities (stationary sources), transportation (mobile sources), use of refrigerants, and emissions from the combustion of industrial waste in the infrastructure division's waste-to-energy operations. Additionally, several divisions within the Group generate their own renewable energy. As the associated emissions from these renewable sources are negligible, they are assumed to be zero in the current calculations.
Methodology	Scope 1 emissions are calculated by multiplying activity data with the corresponding emission factors.
Source of emission factor	<ul style="list-style-type: none"> • GWP values adopted from IPCC AR5 • Emission factors published by United Kingdom Department for Environment, Food and Rural Affairs (DEFRA) • Emission factors published by the US Environmental Protection Agency (USEPA)

Scope 2 emissions

Description	Scope 2 emissions cover indirect GHG emissions that are generated from the purchased energy consumed by the Group, including electricity, purchased steam, heat and cooling. The Group reported both location-based and market-based emissions.
Methodology	<p>Location-based method calculates the average electricity or heat emissions based on the geographical location and reflects the emissions intensity of the electricity grid(s) from which electricity is purchased or acquired.</p> <p>Market-based method calculates based on electricity choices, such as renewable energy certificates and power purchase agreements made by business units, such as their electricity supplier or product, where applicable under regulation. During the year, the Group purchased renewable electricity through RECs, this is deemed to be close-to-zero emission.</p>
Source of emission factor	<ul style="list-style-type: none"> • International Energy Agency (IEA) electricity grid mix emission factors • DEFRA GHG Conversion Factors for Company Reporting • Emission factors published by USEPA • HKEX ESG Guide on Environmental KPIs

Scope 3 emissions

Scope 3 refers to all indirect GHG emissions that occur across a company's value chain. As the Group operates through four distinct divisions, each with its own value chain characteristics, the relevance and calculation of Scope 3 categories vary accordingly. As a result, each division develops tailored methodologies to assess and manage these emissions. The following provides an overview on the relevance of Scope 3 emission categories and calculation approaches.

Scope 3 emission categories and applicability

Category	Relevance to the Group	P	I	R	T
1 Purchase goods and services	Upstream emissions from the production of products and services purchased or acquired by the Group's division	✓	✓	✓	✓
2 Capital goods	Upstream emissions associated with the production of capital goods purchased or acquired by the Group's division	✓	✓	✓	✓
3 Fuel- and energy-related activities	Category 3 includes the upstream emissions relating to the production of fuels and electricity consumed by the Group's division	✓	✓	✓	✓
4 Upstream transportation and distribution	Third-party transportation and distribution services purchased by the Group's division	✓	✓	✓	✓
5 Waste generated in operations	Emissions from third-party disposal and treatment of waste generated in the Group's division owned or controlled operations	✓	✓	✓	✓
6 Business travel	Emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties	✓	✓	✓	✓
7 Employee commuting	Emissions arising from the transportation of employees between their homes and their worksites	✓	✓	✓	✓
8 Upstream leased assets	Emissions associated with the operation of property or assets that are leased from a third-party proprietor		✓		✓
9 Downstream transportation and distribution	Emissions from distribution of electricity and gas to customers, in the Infrastructure division		✓		
10 Processing of sold products	Emissions from the processing of landfill gases in the gas distribution business of the Infrastructure division		✓		
11 Use of sold products	Emissions from the use of goods and services sold to end users		✓	✓	✓
12 End-of-life treatment of sold products	Waste disposal and treatment of the products sold at the end of their life		✓	✓	✓
13 Downstream leased assets	Emissions resulting from assets leased to other entities from UK Rails in the Infrastructure division, which operates leases of regional, commuter and high-speed passenger trains		✓		
14 Franchises	Emissions from the operation of franchises at CKHGT operating companies				✓
15 Investments	Emissions associated with investment by the Group's division	✓		✓	✓

P: Ports I: Infrastructure R: Retail T: Telecoms

Category	Source of Activity Data
1 Purchase goods and services	<ul style="list-style-type: none"> • Spend data • primary and proxy data from suppliers
2 Capital goods	<ul style="list-style-type: none"> • Spend data
3 Fuel- and energy related activities	<ul style="list-style-type: none"> • Fuel usage data
4 Upstream transportation and distribution	<ul style="list-style-type: none"> • Product unit • Spend data
5 Waste generated in operations	<ul style="list-style-type: none"> • Waste type and handling method • Waste volume
6 Business travel	<ul style="list-style-type: none"> • Spend data • Data of business travel
7 Employee commuting	<ul style="list-style-type: none"> • Distance of employee commuting • Travelling method
8 Upstream leased assets	<ul style="list-style-type: none"> • Electricity and natural gas consumption
9 Downstream transportation and distribution	<ul style="list-style-type: none"> • Spend data
10 Processing of sold products	<ul style="list-style-type: none"> • Spend data
11 Use of sold products	<ul style="list-style-type: none"> • Volume of purchased units
12 End-of-life treatment of sold products	<ul style="list-style-type: none"> • Volume of purchased units
13 Downstream leased assets	<ul style="list-style-type: none"> • Mileage, fuel and energy data • Estimated consumption rates
14 Franchises	<ul style="list-style-type: none"> • Energy consumptions of third-party stores
15 Investments	<ul style="list-style-type: none"> • Revenue of investment according to equity share

GHG Target Setting

The Group has established a Group-wide commitment to reduce Scope 1 and 2 emissions by 50% by 2035 from a 2020 baseline. Additionally, the Group is committed to the long-term pursuit of net-zero carbon emissions across its value chain by 2050 and to phase out coal-fired power generation globally by 2035. The Group's core businesses have also set separate reduction targets. The targets for the Ports, Retail, and Telecommunications divisions and some business units in the Infrastructure division have been validated by the SBTi.

Baseline

CKHH emission performance is tracked relative to a 2020 baseline year. To ensure meaningful comparison of emission data over time, the Group considers baseline as it reviews its reporting boundary annually. If a structural change of the Group results in over 10% of emission at our baseline year, re-baselining practice would be carried out and reported.

Assurance

In line with best practices of climate disclosure, the Group continuously improves its data quality through comprehensive GHG accounting procedures. The Retail, Infrastructure and Telecommunications divisions of the Group had conducted assurance on their GHG data, which covers the majority of the Group's emissions.