



Scope 1 and 2 Greenhouse Gas Emissions Basis of Preparation Summary

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1. Overview

This document describes the calculation boundaries, methodologies, and key assumptions used to prepare Perenti's reported inventory of scope 1 and scope 2 greenhouse gas (GHG) emissions. This document applies across the Perenti Group of companies and the results of these calculations are published annually in the Perenti Sustainability Report.

Perenti uses GHG calculation methodologies consistent with the Australian National Greenhouse and Energy Reporting Act (2007) and *GHG Protocol: A Corporate Accounting and Reporting Standard*, with reference to the additional guidance provided in the *Scope 2 Guidance (amendment to GHG Protocol)*.

2. Operational Control

Perenti applies the operational control approach to report consolidated GHG emissions, consistent with the GHG Protocol and Australian National Greenhouse and Energy Reporting Act (2007) definitions.

Perenti's core business is providing services in the mining sector under contract with its clients. These clients typically own the licence to mine in the tenement. Mine sites and exploration sites can be considered 'facilities' with their physical boundaries determined by the mine or exploration licence. Perenti is contracted to deliver a specific activity within the mine facility, such as drilling, blasting, underground mining, or servicing equipment. Perenti can typically apply some of its policies when undertaking contracted work at mine facilities, such as health and safety policies; however, the facility owner ultimately has the greatest authority to introduce policies throughout the whole facility and to all contractors.

Perenti undertakes administrative and logistics activities from a small number of offices/workshops to support clients and operational activities. Perenti has operational control at its offices and workshops given it has the greatest authority to introduce operating, safety, and environmental policies. The emissions from these facilities under Perenti's operational control comprise its scope 1 and 2 emissions boundary.

3. Organisational Boundary

Perenti accounts for 100% of scope 1 and scope 2 emissions from facilities over which it has operational control. In practical terms, facilities where Perenti has operational control include workshops, offices and training centres owned or leased by Perenti. Facilities under Perenti's operational control are verified through the business' fixed asset register which identifies owned and leased properties. Facilities where Perenti conducts business activities but does not have operational control include client mine sites and exploration sites.

Operational control in this section is distinct from the definition of 'organisational control' in the Health and Safety Basis of Preparation (CDMS-1128). The operational control definition ensures client scope 1 emissions are not double counted in accordance with GHG accounting principles.

3.1 Temporal Boundary and Baseline Year

Perenti records GHG emissions on an Australian Financial Year (FY) basis running from 1 July to 30 June. GHG emissions data is recorded inclusive of acquisitions and divestments up to the date of the transaction, unless otherwise specified.

Perenti's baseline year is FY22. This year was selected given verifiable emissions data were available and Perenti set its first emission reduction targets based on the data from this year.

4. Material changes between reporting periods

Perenti expects to continually improve internal GHG accounting procedures and data quality over time, including incorporating any updates to external inputs such as accounting standards and emission factor databases. To help support consistency and comparability between reporting periods, material changes between reporting periods are tracked in the ESG Databook available on Perenti's corporate website from the FY24 reporting period.

5. Tracked GHGs and Emission Scopes

The GHG reporting covers three of the six GHGs identified in the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O). Perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃) GHG emissions are currently not applicable to Perenti's activities. Some hydrofluorocarbons (HFCs) are present within Perenti's organisational boundary but are currently considered to be immaterial.

To achieve a common basis unit of carbon dioxide equivalent (CO₂-e), a global warming potential (GWP) value is applied to CH₄ and N₂O to account for the radiative forcing impact relative to one unit of CO₂ based on a 100-year timeframe. Perenti uses GWPs from the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 5.

The GHG Protocol Corporate Accounting and Reporting Standard classifies corporate GHG emissions into three scopes:

- **Scope 1** emissions are direct GHG emissions from operations that are owned or controlled by the reporting company (e.g. for Perenti, emissions from fuel consumed by light vehicles at our workshop/office facilities).
- **Scope 2** emissions are indirect GHG emissions from the generation of purchased energy consumed by a company (e.g. GHG emissions from electricity Perenti buys from the grid for use at our offices).
- **Scope 3** emissions are all other indirect GHG emissions (not included in scope 2) that occur in the value chain of the reporting company. Refer to Perenti's ESG databook for scope 3 calculation methodologies.

6. Emission Calculation Methodologies

6.1 Scope 1 Methodology

6.1.1 Calculation Boundary

Includes GHG emissions released from combustion of hydrocarbons by activities under Perenti's operational control, including diesel, petroleum, liquid petroleum gas (LPG), acetylene, lubricating oil, and grease in accordance with the NGER (Measurement) Determination, quantified using tonnes CO₂-e.

6.1.2 Calculation Methodology

Perenti records scope 1 emissions using the following equation:

- tonnes CO₂-e = hydrocarbon quantity (kL or m³) x hydrocarbon energy content (GJ) x hydrocarbon emission factor (tonnes CO₂-e / GJ)

6.1.3 Activity Data

Hydrocarbon data are sourced directly from internal purchasing systems, external fuel card reports, and external supplier reports.

6.1.4 Energy Content and Emission Factors

The Australian NGER (Measurement) Determination (Schedule 1) has been set as the default source for scope 1 emission factors and methodologies.

6.1.5 Conversion Factors

Most activity data are available in consistent units, except for LPG which is provided in units of weight or volume depending on supplier. LPG data is standardised to litres using a volume conversion factor of 1 kg of LPG = 1.98 L LPG (ELGAS, 2023).

6.1.6 Key Assumptions

- Hydrocarbons are assumed to be combusted in the month they are purchased or delivered in, given the impracticalities associated with tracking exact timing of combustion.

6.2 Scope 2 Methodology

6.2.1 Calculation Boundary

Scope 2 includes GHG emissions associated with the third-party generation of electricity consumed by activities under Perenti's operational control, quantified using tonnes CO₂-e. Perenti dual reports scope 2 emissions using the location-based and market-based methods described in the *Scope 2 Guidance*.

6.2.2 Calculation Methodology

Perenti records location-based scope 2 emissions from grid electricity purchased on the main Australian grids (i.e. the South-West Interconnected System, New South Wales, and Queensland) using the following calculation:

- tonnes CO₂-e = Quantity of grid electricity consumed x emission factor attributable to source grid

Location-based scope 2 emissions from purchased outside the main Australian grids, including African and regional Australia locations) are calculated using the following calculation:

- tonnes CO₂-e = Quantity of grid electricity consumed x generic emission factor assuming diesel-fired power generation

6.2.3 Activity Data

Primary electricity consumption data are sourced from invoices and consumption reports from utility providers.

6.2.4 Emission Factors

Australian grid emission factors are sourced from the Clean Energy Regulator's Emissions and Energy Reporting System, as reported in Part 6 of Schedule 1 of the NGER Measurement Determination (2008) for each state and territory. Electricity purchased from grids in Africa and outside the main Australian grids are applied a generic emission factor for diesel generation (0.67 kg CO₂-e per kWh).

6.2.5 Location-based Method

The location-based method calculates emissions based on the average grid emissions of the electricity consumed in a specific geographic location. The location-based method is applied in accordance with Method A1 and A2, Chapter 7 of the NGER Measurement Determination (2008).

6.2.6 Market-based Method

The market-based method considers Renewable Energy Certificates (RECs) purchased to neutralise the equivalent actual emissions from purchased grid electricity recorded under the location-based method. Perenti applies the market-based method in accordance with Method B, Chapter 7 of the NGER Measurement Determination (2008). It is used to recognise that the business is supporting renewable energy generation within the grid without physically connecting to a renewable energy source. Perenti purchases RECs as part of our pathway to net zero emissions. Renewable electricity is purchased under a GreenPower accredited product under contract between Perenti and our utility provider. This means that scope 2 emissions from electricity purchased through REC contracts are effectively zero and are accounted as such within the market-based method.

6.2.7 Key Assumptions

- Electricity purchased from grids in Africa and outside the main Australian grids are applied a generic emission factor for diesel generation (0.67 kg CO₂-e per kWh).
- Based on a desktop review of utilities available within regions our facilities are located, Perenti assumes no facility under its operational control purchases steam, heating or cooling.

6.3 Energy Consumption Methodology

Perenti accounts for 100% of energy consumed at operations over which Perenti has operational control, quantified using gigajoules. This approach aligns with the organisational boundary used to report operational GHG emissions.

Activity data for hydrocarbons and electricity consumed under Perenti's operational control is recorded using methods described in **Section 6.1** and **Section 6.2**.

All fuel quantities are converted to energy-based units using energy content factors specific to each fuel (e.g., gigajoules per kilolitre for diesel). Electricity quantities are not required to be converted, as consumption is recorded in energy-based units by definition. Australia's National Greenhouse and Energy Reporting (NGER) (Measurement) Determination 2008 has been set as the default source for factors and methodologies for consistency.

7. References

Clean Energy Regulator (2024). Emissions and Energy Reporting System (EERS). Retrieved from online portal: <https://cer.gov.au/online-systems/eers-current-release>.

ELGAS (2023). LPG Gas Unit Conversions. Retrieved July 10, 2024, from <https://www.elgas.com.au/elgas-knowledge-hub/residential-lpg/lpg-gas-unit-conversions/>

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