

Basis of preparation – FY23 operational GHG emissions reporting

Contents

- 1.0 Emissions inventory reporting approach
- 2.0 Perpetual inventory items and methodology

1.0 Emissions inventory reporting approach

1.1 Greenhouse Gas (GHG) Protocol guidance

Perpetual's FY23 inventory has been prepared in line with the following standards:

- GHG Protocol: A Corporate Accounting and Reporting Standard¹ (Corporate Standard) (WRI/WBCSD, 2004)
- GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard² (Scope 3 Standard) (World Resources Institute (WRI)/ World Business Council for Sustainable Development (WBCSD), 2011).

The GHG Protocol Technical Guidance for Calculating Scope 3 Emissions³ (Scope 3 Calculation Guidance hereon) has been used to determine category specific methodology and boundary inclusions as part Perpetual's scope 3 inclusions.

Given Perpetual's commitment to pursue Climate Active certification, the Climate Active Carbon Neutral Standard for Organisations⁴ has also been used to supplement the above standards in developing Perpetual's inventory.

Organisational boundary

Perpetual's FY23 inventory has been prepared in line with the operational control consolidation approach covering the activities associated with Perpetual's operations and its business units (see Table 1).

TABLE 1: GHG PROTOCOL CONSOLIDATION APPROACHES

Approach	Description
Operational control	Under the operational control approach, a company accounts for 100% of the emissions from operations over which it or one of its subsidiaries has operational control.
Financial control	Under the financial control approach, a company accounts for 100% of the emissions from operations over which it, or one of its subsidiaries, has financial control (i.e., >50%).
Equity share	Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation.

1.2 Boundary setting (completeness review)

In FY23, a comprehensive review of Perpetual's GHG emissions reporting boundary was undertaken, aligning to guidance provided in GHG Protocol standards. This resulted in a shift away from individual emission sources being represented within the emissions inventory as per previous years, to alignment with GHG Protocol scope 3 categories. The aim of the review was also to align with Perpetual's sustainability strategy and to support Perpetual in pursuing a Climate Active certification. As such, the review also took Climate Active guidance into consideration.

The FY22 emissions inventory sources were utilised as a starting point with the review focusing on the following items:

- Review of potential scope 1 emissions sources including gas, stationery fuels and refrigerants from commercial refrigeration, air conditioning units and generators
- Full review of scope 3 category relevance for inclusion within Perpetual's boundary.

Scope 3 boundary setting

The Scope 3 Standard defines 15 categories across upstream and downstream scope 3 emissions sources. Using the accounting and reporting principles and adopting an operational control consolidation approach, Perpetual's FY23 scope 3 boundary was determined based on a review of emissions sources against the Scope 3 Standard criteria for identifying relevant scope 3 categories as summarised in Table 2 below.

¹ GHG Protocol, [A Corporate Accounting and Reporting Standard](#)

² GHG Protocol, [Corporate Value Chain \(Scope 3\) Accounting and Reporting Standard](#)

³ GHG Protocol, [Technical Guidance for Calculating Scope 3 Emissions \(version 1.0\)](#)

⁴ Climate Active, https://www.climateactive.org.au/sites/default/files/2023-04/Standards_Organisation.pdf

Under the Climate Active⁵ program⁶, if two or more of the criteria set out below are met then a category is deemed relevant and should be included in the reporting organisation's scope 3 boundary. Whilst Climate Active provides guidance on the number of criteria required to determine relevance, the Scope 3 Standard does not include any such guidance. Climate Active guidance was used to support determination of whether a category is deemed relevant and for inclusion within Perpetual's emissions inventory.

TABLE 2: GHG PROTOCOL SCOPE 3 STANDARD CRITERIA FOR IDENTIFYING RELEVANT SCOPE 3 ACTIVITIES

Criteria	Description
Size	They contribute significantly to the reporting company's total anticipated scope 3 emissions.
Influence	There are potential emissions reductions that could be undertaken or influenced by the reporting company.
Risk	They contribute to the company's risk exposure (climate change related risks such as financial, regulatory, supply chain, product and customer, litigation, and reputational risks).
Stakeholders	They are deemed critical by key stakeholders (e.g., customers, suppliers, investors, or civil society).
Outsourcing	They are outsourced activities previously performed in-house or activities outsourced by the reporting company that are typically performed in-house by other companies in the reporting company's sector.
Sector guidance	They have been identified as significant by sector-specific guidance.
Other	They meet any additional criteria for determining relevance developed by the company or industry sector.

For categories 1 and 2 which were deemed relevant to Perpetual's inventory this year, further review was undertaken for individual expenditure items to determine relevance as part of its FY23 inventory. The relevance test conducted aligned to further guidance provided within the Climate Active Carbon Neutral Standard for Organisations⁷ as listed in Table 3 below as part of the "other" criteria noted above from the GHG Protocol.

TABLE 3: CLIMATE ACTIVE ORGANISATION CRITERIA FOR IDENTIFYING RELEVANT SCOPE 3 ACTIVITIES AND PERPETUAL GROUP DEFINITION

Criteria	Climate Active description	Perpetual defined understanding
Size	The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions.	Where emissions sources are equal to, or more than, 5% of our Scope 1 & 2 operational emissions (location-based). ⁸
Risk	The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.	Where the source contributes to the company's risk exposure (e.g. climate change related risks such as financial, regulatory, supply chain, product and customer, litigation, and reputational risks).
Stakeholders	The emissions from a particular source are deemed relevant by key stakeholders.	Where Perpetual has evidence that they are deemed relevant by our stakeholders including through our stakeholder research conducted as part of our sustainability strategy materiality assessment.
Influence	The responsible entity has the potential to influence the reduction of emissions from a particular source.	Where Perpetual has the ability to influence the emissions reductions, either through our direct actions or through our indirect influence in our supply chain where a sufficient number of Climate Active carbon neutral certified options are available.
Outsourcing	The emissions are from outsourced activities that were previously undertaken within the organisation's boundary or from outsourced activities that are typically undertaken within the boundary for comparable organisations.	Where activities have previously been undertaken in-house and have been outsourced (e.g. cloud data centres).

Based on the above, a summary of the categories included in Perpetual's FY23 scope 3 inventory is outlined in Table 4.

⁵ Technical Guidance Manual, 2022, Climate Active [Guidance - Organisations - Public Disclosure Statement \(climateactive.org.au\)](https://www.climateactive.org.au/sites/default/files/2022-07/climate-active-carbon-neutral-standard-organisations.pdf)

⁶ Climate Active is the only carbon neutral certification program endorsed by the Australian Government.

⁷ Climate Active Carbon Neutral Standard for Organisations, Climate Active, <https://www.climateactive.org.au/sites/default/files/2022-07/climate-active-carbon-neutral-standard-organisations.pdf>

⁸ 5% threshold developed based on details provided by Climate Active for non-quantified emissions.

TABLE 4: SCOPE 3 CATEGORIES AND THEIR INCLUSION PERPETUAL'S FY23 EMISSIONS INVENTORY

Category	Inclusion in FY23 inventory
1. Purchased goods and services	Included – relevant expenditure items
2. Capital goods	Included – relevant expenditure items
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	Included
4. Upstream transportation and distribution	Included
5. Waste generated in operations	Included
6. Business travel	Included
7. Employee commuting	Included
8. Upstream leased assets	Not included - not relevant to Perpetual (all assets included in scope 1 /2)
9. Downstream transportation and distribution	Not included - not relevant to Perpetual
10. Processing of sold products	Not included - not relevant to Perpetual
11. Use of sold products	Not included - not relevant to Perpetual
12. End-of-life treatment of sold products	Not included - not relevant to Perpetual
13. Downstream leased assets	Not included - not relevant to Perpetual
14. Franchises	Not included - not relevant to Perpetual
15. Investments	Not included - not relevant to Perpetual

2.0 Perpetual inventory items and methodology

2.1 Scope 1 and 2 emissions sources

Scope 1 emissions

Data overview

This category covers the direct GHG emissions from sources that are owned or controlled by Perpetual. For Perpetual, this includes:

- Refrigerant usage from HVAC and commercial refrigeration units at Perpetual office locations.
- Natural gas usage for gas hobs in the kitchen at Angel Place.
- Diesel usage for back-up generator at Angel Place.

Perpetual does not use fuel / gas for heating at our office locations.

Emissions calculation approach

Total emissions (tCO₂e) = Σ [fuel consumption by fuel type] x [fuel specific emission factor] + Σ [total refrigerant recharge by refrigerant type] x [refrigerant type GWP] + Σ [total refrigerant stock by refrigerant type] x [refrigerant leakage rate] x [refrigerant type GWP]

*Note, the leakage rate method is only applied for a particular unit where recharge data is unavailable.

Scope 1 emissions factors for fuel and Global Warming Potential (GWP) factors for refrigerants were sourced from National Greenhouse Accounts (NGA) Factors 2022 – February 2023⁹.

Scope 2 emissions

Data overview

⁹ Australian National Greenhouse Accounts Factors February 2023, DCCEEW, <https://www.dcceew.gov.au/sites/default/files/documents/national-greenhouse-accounts-factors-2022.pdf>

This category covers the GHG emissions from the generation of grid-purchased electricity at sites under operational control by Perpetual. There are two methods for calculating emissions from purchased electricity: location-based and market-based methods. Both reporting approaches have been calculated for the purposes of estimating Perpetual's Scope 2 emissions profile.

Emissions calculation approach

For the location-based approach: total emissions (tCO₂e) = Σ [electricity consumption by location] x [location-based electricity emission factor]

For the market-based approach: total emissions (tCO₂e) = Σ [electricity consumption in Australia] x [1 - location renewable power percentage] x [Australia electricity residual mix factor (RMF)] + Σ [electricity consumption in all other locations] x [location electricity RMF]

Market-based emission factors have been sourced from publicly available country specific emission factor databases. Where a country specific RMF was unavailable, the latest renewable energy percentage available for the location was sourced and back calculated the RMF as per Climate Active guidance: $RMF = \text{national location-based emissions factor} / (1 - RPP)$. Where the RPP has been replaced by the actual renewable energy percentage as opposed to the target.

Assumptions

Market-based reporting approach

Perpetual has signed an agreement of GreenPower for Australian consumption with Origin for the Calendar Year 2023 (CY23) period. Climate Active has confirmed this can be used to backdate emissions associated with consumption for the FY23 period. The total amount purchased by Perpetual is 1,850MWh and this has been used to offset all emissions for Perpetual and Pental sites.

The market-based accounting approach to emissions calculations in Australia has been applied as guided by Climate Active, which includes the consideration of Australia's Renewable Energy Target (RPP). For all other jurisdictions, as the renewable energy percentage for the year includes contracted electricity, there is no consideration of an RPP, and the scope 2 residual mix factor (RMF) has been applied to total consumption at the location.

2.3 Scope 3 emissions sources

Category 1: Purchased Goods and Services Goods

Data overview

This category covers the upstream emissions associated with goods and services purchased by Perpetual. Direct expenses data was provided for all business units with rolled-up category descriptions. Specific expense data was provided for stationery and paper purchases for Pental and Perpetual – Australia respectively.

Data processing and manipulation

Data was provided for all "direct expenses" as part of Perpetual's financial extracts. A review exercise was undertaken for any expenditure items deemed as not relevant to category based on the below criteria:

- Where expenditure is captured as part of other GHG Protocol scope 3 categories, e.g. travel expenses under category 6.
- Where the expenditure item does not lend itself to being a purchased good or service, e.g. tax expenses.

Emissions were then mapped to an emission factor category to calculate emissions.

A review of relevance of emissions categories was then applied to account for individual expenditure categories deemed relevant as per the relevance test detailed in section 1.2. The results from the relevance test for individual line items is detailed in Table 5 below.

TABLE 5: RELEVANCE OF INDIVIDUAL EMISSIONS CATEGORY LINE ITEMS AS DEFINED BY PERPETUAL

Climate Active emissions category	Emissions sources	Relevance outcome
ICT services and equipment	Computer and electrical components, hardware and accessories	Yes
ICT services and equipment	Computer and technical services	Yes
ICT services and equipment	Telecommunications	Yes
Office equipment & supplies	Printing and stationery	Yes
Office equipment & supplies	Electronic office equipment	Yes
Waste	Sanitary and garbage disposal	Yes
Professional Services	Business services – computer	Yes
Professional Services	Advertising services	No
Professional Services	Business services - other	No
Professional Services	Accounting services	No
Professional Services	Legal services	No
Professional Services	Surveying services	No
Professional Services	Entertainment	No
Professional Services	Insurance	No
Food	Confectionary	No
Construction Materials and Services	Building and facility maintenance and repair services	No
Office equipment & supplies	Newspapers, journals and periodicals	No

Emissions calculation approach

Total emissions (tCO₂e) = Σ [(Purchased good or service spend item)] x [spend-based emissions factors (for specific activity data)]

Emissions have been calculated by applying input-output (I/O) emission factors to expenditure data. Industrial Ecology Lab (IELab) scope 3 emission factors as sourced from Climate Active_Reporting_Carbon inventory_v8.0 were applied, which have been forecasted for 2021 and adjusted for inflation from a 2018 base year.

Category 2: Capital goods

Data overview

This category covers the upstream emissions associated with purchased capital goods by Perpetual. Capital expenditure data was provided for all business units with the following two category descriptions:

PPE: furniture, fixtures and fittings, leasehold improvements, right-of-use (ROU) assets (leased premises)

SWR: software.

Emissions calculation approach

Total emissions (tCO₂e) = Σ [(Capital good spend item)] x [spend-based emissions factors (for specific activity data)]

Emissions have been calculated by applying input-output (I/O) emission factors to expenditure data. Industrial Ecology Lab (IELab) scope 3 emission factors as sourced from Climate Active_Reporting_Carbon inventory_v8.0 were applied, which have been forecasted for 2021 and adjusted for inflation from a 2018 base year.

Category 3: Fuel- and Energy-Related Activities

Data overview

This category covers emissions from the following emissions sources:

- Extraction, production, and transportation of purchased fuel and electricity consumed by Perpetual at the facilities Perpetual has operational control over (noted as scope 3 purchased fuel and electricity hereon in)
- Perpetual's share of base building electricity consumption e.g., electricity used for heating and cooling of share spaces, electricity used for operation of lifts (noted as base building electricity hereon)
- Consumption of electricity by Perpetual's business continuity planning (BCP) sites - BCP electricity consumption is associated with operation of computers, data centre racks and air conditioning (noted as BCP electricity hereon).

Emissions calculation approach

For the location-based approach: total emissions (tCO₂e) = Σ [electricity/fuel consumption by fuel type] x [upstream location-based electricity/fuel emission factor] + Σ [base building and BCP electricity consumption] x [location-based full fuel cycle emission factor]

Scope 3 location-based emission factors have been sourced from country specific emission factor databases in Table 6 below. Where a scope 3 country-specific factor was unavailable, a state-specific Australia proxy was selected based on similarity of the scope 2 emissions factor. Refer to scope 1 and 2 emissions sources for scope 1 and 2 emission factors, which were applied to determine the full fuel cycle factor.

TABLE 6: SCOPE 3 LOCATION-BASED EMISSION FACTOR SOURCES BY COUNTRY

Country	Scope 3 location-based emissions factor source
Australia (state specific)	National Greenhouse Accounts Factors (NGA Factors) 2022 – February 2023 ¹⁰
USA	Proxy used: assumed similar to South Australia (SA) based on scope 2 emissions profile
UK	BEIS, Greenhouse gas reporting: conversion factors 2023 ¹¹
Singapore	Proxy used: assumed similar to Northern Territory (NT) based on scope 2 emissions profile
Netherlands	Proxy used: assumed similar to SA based on scope 2 emissions profile
Germany	Proxy used: assumed similar to SA based on scope 2 emissions profile
France	Proxy used: assumed similar to Tasmania (TAS) based on scope 2 emissions profile
Ireland	Proxy used: assumed similar to SA based on scope 2 emissions profile
Hong Kong	Proxy used: assumed similar to New South Wales (NSW) based on scope 2 emissions profile

For the market-based approach: total emissions (tCO₂e) = Σ [electricity consumption in Australia] x [1- location renewable power percentage (RPP)] x [electricity residual mix factor (RMF)] + Σ [electricity consumption in all other locations] x [electricity residual mix factor (RMF)]

A scope 3 market-based RMF was only available in Australia (i.e. no international scope 3 RMFs available). As such, the Australian scope 3 RMF has been applied. Given the representation of the electricity mix across different states and that the Australia scope 3 RMF is higher than all state specific location-based scope 3 factors except for Queensland, we believe this is a conservative approach.

Category 4: Upstream Transportation and Distribution

Data overview

This category covers the upstream emissions associated with downstream transport and distribution. The activity data captured included supplier specific emissions (total number and emissions per type of courier item transported by specific providers for Perpetual), distance-based consignment data for Perpetual Australia and expenditure amount with relevant freight / courier service providers.

Emissions calculation approach

Total emissions (tCO₂e) = Σ [spend per courier type] x [spend-based emission factor] + Σ [supplier specific emissions by delivery type]

¹⁰ Ibid.

¹¹ Ibid.

Supplier specific emissions were provided for certain suppliers; emissions total estimates have been taken as is, given the data was provided in a PDF extract and calculations could not be interrogated.

Emissions from expenditure data have been calculated by applying input-output (I/O) emission factors. IELab scope 3 emission factors as sourced from Climate Active_Reporting_Carbon inventory_v8.0 have been applied, which have been forecasted for 2021 and adjusted for inflation from a 2018 base year.

Category 5: Waste generated in operations

Data overview

This category covers scope 1 and scope 2 emissions of waste management suppliers that occur during the disposal and treatment of waste generated by Perpetual's operations. The activity data captures the emissions from waste and wastewater.

Emissions calculation approach

Total emissions (tCO₂e) = Σ [total mass of waste type per end-of-life fate] x [end-of-life fate emission factor] + Σ [total water usage] x [wastewater emission factor]

Emission factors were sourced from the NGA Factors 2022 – February 2023.

Category 6: Business travel

Data overview

This category covers emissions associated with business travel from Perpetual's employees in FY23, namely air travel and accommodation.

Emissions calculation approach

For air travel: total emissions (tCO₂e) = Σ [distance travelled by transport mode and class] x [emission factor]

For accommodation: total emissions (tCO₂e) = Σ [nights spent per room per location] x [emission factor based on location]

Emission factors were sourced from the sources below:

- Air travel emissions factors were sourced from BEIS Greenhouse gas reporting: conversion factors 2023¹²
- Accommodation emissions factors were sourced from Cornell Hotel Sustainability Benchmarking Index 2021, Hotel Carbon Footprint Per Occupied Room¹³.

Category 7: Employee Commuting

Data overview

This category covers all employee commuting to and from work using Full Time Equivalent (FTE) and state commuting statistics as well as emissions from working from home (WFH).

Emissions calculation approach

Total emissions (tCO₂e) = Σ ([total commuting distance for all FTE by mode of transport per year] x [mode of transport emission factor]) + [WFH adjustment]

For employee commuting, commuting patterns including typical mode of transport and average commuting distances are derived from statistical data for Australia and linked to the number of FTE employees in every state within Australia. For international locations, Australia average commuting patterns were used as a proxy as a conservative approach given the size and public transport options available in Australia.

Key data sources are as follows:

¹² Ibid.

¹³ Hotel Sustainability Benchmarking Index 2021: Carbon, Energy and Water, Cornell Center for Hospitality Research,

<https://ecommons.cornell.edu/bitstream/handle/1813/109990/Hotel%20Sustainability%20Benchmarking%20Index%202021.pdf?sequence=3&isAllowed=y>

-
- Climate Active analysis of 2071.0.55.001 Census of Population and Housing: Commuting to Work - More Stories from the Census, 2016
 - BS Census of Population and Housing: Transport data summary, 2021¹⁴.

Emission factors per transport mode were sourced from BEIS Greenhouse gas reporting: conversion factors 2023¹⁵.

For WFH, the total FTE WFH for each month was input into a third-party consultants' proprietary WFH calculator to calculate associated emissions. This determines estimated consumption from heating, cooling, electronics use during the working period based on average household sizes and usage patterns at a state level. Emission factors for consumption of fuel and electricity were sourced from National Greenhouse Accounts (NGA) Factors 2022. International employees WFH were mapped to Victoria WFH emissions estimates as a conservative approach given it is the state with highest emissions per FTE WFH.

All other scope 3 categories

Categories 8 – 15 were deemed as not relevant to Perpetual.

¹⁴ *BS Census of Population and Housing: Transport data summary*

¹⁵ Ibid.