FRASERS PROPERTY

FY23
Basis of Preparation for Carbon Data

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1 Introduction

We are pleased to present our Basis of Preparation document for carbon accounting, which should be read in conjunction with the carbon data disclosed in our ESG Report 2023[1] and our inaugural ESG Databook 2023[2].

This Basis of Preparation outlines the general principles, methodologies, assumptions and considerations that underpin our carbon accounting practices for all business units in Frasers Property Limited ("Frasers Property" and together with its subsidiaries, the "Frasers Property Group" or the "Group"). We continue to evolve our carbon accounting approach in line with industry best practices and expectations. The methodologies, assumptions and considerations outlined in this Basis of Preparation reflect our current thinking, which will likely develop further over time as we progress towards our goal of achieving net-zero carbon emissions across Scopes 1, 2 and 3 by 2050.

One of our Group ESG Goals is to achieve net-zero carbon across Scopes 1, 2 and 3 by 2050. We adopt a science-based approach and leverage partnerships to manage emissions across our operations and value chain.

2 Standards, Principles and Procedures

2.1 Standards

The Group has adopted the Greenhouse Gas Protocol (GHG Protocol)[3] as the primary source of reference for calculating emissions. Specific parts of the GHG Protocol that were used to prepare the basis of emission calculation include the:

- Corporate Accounting and Reporting Standard[4];
- Corporate Value Chain (Scope 3) Accounting and Reporting Standard[5];
- GHG Protocol Scope 2 Guidance[6] (an amendment to the GHG Protocol Corporate Standard); and the
- Technical Guidance for Calculating Scope 3 Emissions[7] (supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard).

These are internationally-accepted GHG accounting and reporting standards for businesses and are widely used by organisations in a variety of sectors. Additional sources include country-specific and

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[1] *Frasers Property ESG Report 2023: https://www.frasersproperty.com/who-we-are/sustainability/reports-and-policies*
[2] *Frasers Property Databook 2023: https://www.frasersproperty.com/who-we-are/sustainability/reports-and-policies*
[3] *Greenhouse Gas (GHG) Protocol: https://ghgprotocol.org/*
[4] *GHG Protocol Corporate Accounting and Reporting Standard: https://ghgprotocol.org/corporate-standard*
[5] *GHG Protocol (Scope 3) Corporate Value Chain Accounting and Reporting Standard: https://ghgprotocol.org/corporate-value- chain-scope-3-standard*
[6] *GHG Protocol Scope 2 Guidance: https://ghgprotocol.org/scope-2-guidance*
[7] *Technical Guidance for Calculating Scope 3 Emissions: https://ghgprotocol.org/scope-3-calculation-guidance-2*

industry-specific guidelines where relevant, such as the UK Green Building Council's Guide to Scope 3 Reporting in Commercial Real Estate[8].

2.2 Principles

The five reporting principles in the GHG Protocol guide our carbon data presentation:

- Accuracy: Data quantification should enable accurate decision making and avoid bias and uncertainties where practicable;
- Completeness: Includes relevant information to allow for comprehensive measurement; Datasets regularly assessed for completeness including proper record of exclusions;
- Consistency: Consistency in accounting approaches, boundaries and calculation methodologies for meaningful comparisons over time;
- Relevance: Data collected should be relevant to user decisions and needs; and
- Transparency: Reporting sufficient carbon information to enable confident stakeholder decisions.

2.3 Procedures

Our GHG inventory is updated through the following process:

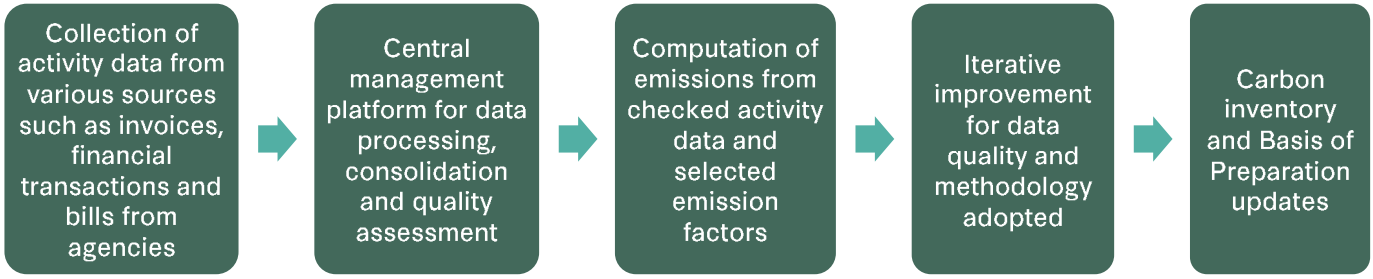


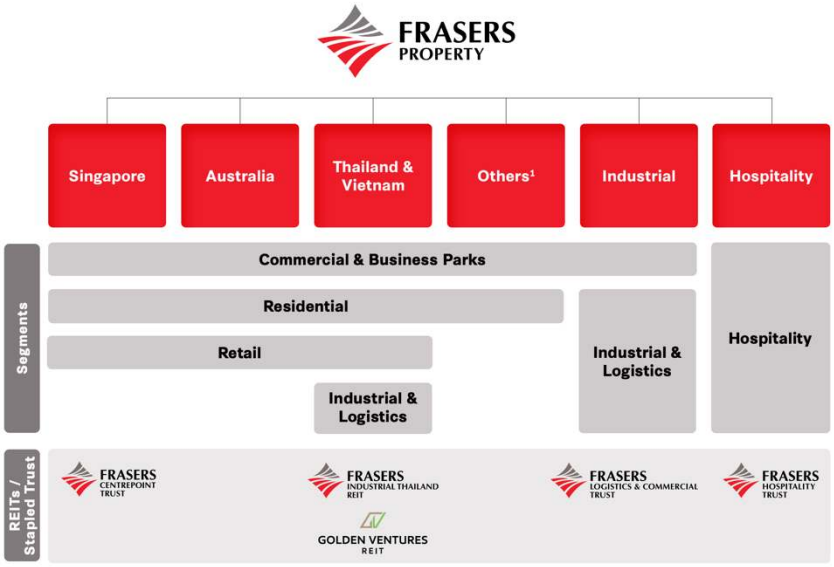
Figure 1: Process of preparing GHG inventory

3 Carbon Inventory Development

3.1 Boundary and Approach

According to the GHG Protocol Corporate Standard, the concept of an organisational boundary in carbon accounting is similar to that used in financial accounting. This defines the scope of direct and indirect emissions to be accounted for operations that fall within the established organisational boundary of Frasers Property.

[8] *UK Green Building Council's Guide to Scope 3 Reporting in Commercial Real Estate: https://ukgbc.org/resources/guide-to-scope-3-reporting-in-commercial-real-estate/*



[1] Comprises China and the UK.

Figure 2: Frasers Property Group Structure

The Group has adopted an operational control approach to develop our carbon inventory, which is also the approach followed by all business units. An exhaustive list of operational boundary applications can be found in Appendix A. The reasons for following this method includes:

- To take ownership of emissions generated by activities from which economic profit is derived;
- To gain more insights on climate-related risks and opportunities; and
- To provide more comprehensive reporting datasets to track and benchmark performance.

Based on our Group structure and operational boundaries, we have categorised direct and indirect emissions into the following three scopes:

- Scope 1: Direct emissions
  Direct GHG emissions occur from operational activities owned or controlled by Frasers Property.
- Scope 2: Purchased energy indirect emissions
  Indirect GHG emissions occur from the generation of purchased energy consumed at operationally controlled areas.
- Scope 3: Other indirect emissions
  All other indirect GHG emissions that are a consequence of the activities of our business activities but occur from sources not controlled by Frasers Property. There are 15 categories of such emissions and 12 of them have been identified to be applicable to us according to our business activities and operational functions. Overall categories excluded and the reasons for exclusion for each of them are listed below.

- Category 9 Downstream Transportation and Distribution: Our primary activities involve investments, development and management of real estate assets. Our business is not involved in the distribution of raw materials or finished products to end customers.
- Category 10 Processing of Sold Products: Our business does not involve further processing of sold products (in this case, buildings).
- Category 14 Franchises: Frasers Property does not own or operate any Franchises as part of our business operations.

3.2 Inventory Development

Carbon inventory baseline year: FY19, chosen for being more representative of our usual business before the pandemic and due to the availability of more full year data.

Baseline year exception: Frasers Property Thailand, where a base year of FY21 was selected due to the restructuring of our Thailand business as FY19 would not be the most appropriate baseline for an emissions inventory.

We aim to review and/or revise our baseline year as appropriate for each business unit based on scenarios described in the GHG Protocol Corporate Standard and the Target Recalculation Protocol in Science Based Targets Initiative (SBTi) Criteria[9].

Target setting: We adopt a science-based approach to carbon reduction, to work towards our Group ESG goal of achieving net-zero carbon emissions across Scopes 1, 2 and 3 by 2050. To date, our Australia, Industrial, Vietnam and UK business units, as well as REIT Frasers Logistics & Commercial Trust, have SBTi-validated targets. Almost all business units and all our REITs have developed their net-zero carbon roadmaps and internal near-term targets.

Emissions calculations: Emissions were estimated by multiplying activity data by relevant conversion factors. A general example of calculation is presented below and details on the scope-specific calculation approaches are provided in Appendix B.

Activity data (e.g. kWh of electricity usage) x Emission factor ($kgCO_2e$ / kWh) = $kgCO_2$ equivalent

- Activity data is the input data relating to the release of GHGs such as the amount of fuel combusted, the distance travelled, or the electricity used.
- Emission factors allow activity data to be converted into weight of carbon dioxide equivalent (CO_2e). CO_2e is a universal unit of measurement that allows the global warming potential of various GHGs to be compared.

[9] *Science Based Targets Initiative (SBTi) criteria: https://sciencebasedtargets.org/resources/?tab=develop#resource*

Emissions factors: Frasers Property uses widely accepted emission factors, i.e. emission factors published by a state or federal government department or those adopted by the most recent data from recognised sources such as the Intergovernmental Panel on Climate Change (IPCC)[10] and the International Energy Agency (IEA)[11]. A more detailed list of emission factors adopted can be found in Appendix B.

3.3 Quality Management

We seek to adopt best practices in implementing a good GHG inventory quality management system. These include but are not limited to the following, covering a majority of our data sources.

- Regular checks for data inputs within our central data management system to identify, investigate and amend extreme abnormalities.
- Quarterly data compilation and sampling of supporting documents to enhance accuracy and quality.
- Annual review of emission factors used for various emission sources.
- External assurance on data conducted twice a year which lends a further quality check.
- Annual review of depth of sources covered at property asset level to address potential gaps.

Restatement of previous data take place if the change, for example, changes in operation, calculation methods or discovery of errors, is considered material. Examples of when and how restatements have been made include:

- For electricity, all prior years are restated each year in accordance with latest time series of grid emissions factors.
- For all other emissions, all prior years which fall after the date of the latest conversion factors are restated using the latest conversion factor available.

A locked-down copy of the emission factors for each year is saved to provide an audit trail of changes.

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[10] *Intergovernmental Panel on Climate Change: https://www.ipcc.ch/*
[11] *International Energy Agency: https://www.iea.org/*

Appendix A. Operational Boundary Scenarios

We have identified boundaries that apply to each of the business activities listed in the header row. Immaterial or not applicable scopes and categories are indicated by blank boxes, unless stated otherwise.

Scope and Category	Corporate activities	Asset management - fully managed asset	Asset management - common area management	Asset management - fully leased out	Asset management - leased from another party	Development - internally built	Development - externally built
Scope 1 Direct Emissions	✓	✓	✓			✓	✓
Scope 2: Indirect Emissions	✓	✓	✓			✓	✓
Scope 3 - Category 1: Purchased Goods and Services	✓	✓	✓	✓	✓	✓	✓
Scope 3 - Category 2: Capital Goods						✓	✓
Scope 3 - Category 3: Fuel- and energy-related Activities	✓	✓	✓		✓	✓	✓
Scope 3 - Category 4: Upstream Transportation and Distribution	Included in Category 1						
Scope 3 - Category 5: Waste Generated in Operations	✓	✓	✓			✓	✓

Scope 3 - Category 6: Business Travel	✓						
Scope 3 - Category 7: Employee Commuting	✓						
Scope 3 - Category 8: Upstream Leased Assets					✓		
Scope 3 - Category 9: Downstream Transportation and Distribution	Not applicable						
Scope 3 - Category 10: Processing of Sold Products	Not applicable						
Scope 3 - Category 11: Use of Sold Products	Applicable to assets developed by Frasers Property for sale and/or sold assets where Frasers Property is the first owner						
Scope 3 - Category 12: End of Life Treatment of Sold Products							
Scope 3 - Category 13: Downstream Leased Assets			✓	✓			
Scope 3 - Category 14: Franchises	Not applicable						
Scope 3 - Category 15: Investments	✓						

Appendix B. Calculation Methodologies and Key Assumptions

Scope and Category	Calculation Methodologies Adopted and Key Assumptions Applied
Scope 1: Direct Emissions	• Stationary combustion-related use of fuels, for example, fuels used in back-up generators or natural gas used in assets that Frasers Property owns or controls. Generally, Total emissions ($kgCO_2e$) = Amount of diesel/petrol/natural gas (litres/kg/GJ) x Emission factor ($kgCO_2e$ per litre/kg/GJ). • Industrial Process and Product Use (IPPU) emissions from the use of refrigerants in chillers or air-conditioning and fire extinguishers. Generally, Total emissions ($kgCO_2e$) = Amount of refrigerant (kg) x Global Warming Potential (GWP) for specific refrigerant type ($kgCO_2e$/kg).
Scope 2: Indirect Emissions	• Business units are required to report on electricity, district cooling and heating purchased from third parties, and their emissions arising from operational activities owned or controlled by Frasers Property. • This scope also captures renewable energy, from all sources, which is purchased from third parties. Frasers Property calculates both location and market-based emissions, where relevant. For the location-based approach, generally, Total emissions (tCO_2e) = Σ [Electricity consumption by location] x [Location-based electricity emission factor]. For the market-based approach, Total emissions (tCO_2e) = Σ [Electricity consumption] x [1 - Location renewable power percentage] x [Electricity residual mix factor (RMF)] + Σ [Electricity consumption in all other locations] x [Location electricity RMF].

Scope 3 The following table outlines the most material and relevant Scope 3 categories for the type of activities that Frasers Property performs. Reasons for exclusion of categories that are deemed inapplicable are provided.	
Scope 3 - Category 1: Purchased Goods and Services	Spend-based method is adopted to estimate emissions for goods and services by collecting data on the economic value of goods and services purchased, multiplying it by relevant secondary (e.g. industry average) emissions factors. This method is used due to limitations of available data and no extrapolations with respect to this category have been performed. This category includes emissions from the production of products or services purchased by Frasers Property. These emissions include upstream (cradle-to-gate) emissions from our suppliers. The most common services included in this category are air-conditioning services, repair and maintenance services, cleaning services, marketing and sales services, furniture, insurance, third-party construction services, licence fees, other professional services etc. Excluded expenditure items deemed irrelevant to this category include: • Expenditure on a good or service that is part of other GHG Protocol scope 3 categories, e.g. business travel; and • Where the expenditure item does not lend itself to being a purchased good or service, e.g. tax expense. Generally, Total emissions ($kgCO_2e$) = Σ [(Purchased good or service spend item)] x [Spend-based emissions factors (for specific activity data)].
Scope 3 - Category 2: Capital Goods	Based on data availability, Frasers Property uses the three methods below: • Average-product method, which involves estimating emissions for goods by collecting data on the mass or other relevant units of goods purchased and multiplying by relevant secondary (e.g., industry average) emission factors such as average emissions per unit of good. • Average spend-based method, which is similar to Category 1's computation. • Where applicable, a life-cycle assessment value is adopted to estimate the emissions from this category.

	This category includes emissions from the production of capital goods purchased by Frasers Property, including upstream (cradle-to-gate) emissions from suppliers. In our case, main sources of emissions come from construction materials used in development of new assets, refurbishment or renovation of existing assets and the emissions from purchase of new assets, where Frasers Property is the first owner of the asset (asset developed by another developer and immediately sold to Frasers Property). Generally, Total emissions (tCO_2e) = Σ [(Capital good spend item)] x [Spend-based emissions factors (for specific activity data)].
Scope 3 - Category 3: Fuel- and energy-related Activities	The average-data method is used which involves estimating emissions by using secondary emission factors for upstream emissions per unit of consumption (e.g., kg CO_2e/kWh). Leveraging the information obtained for Scopes 1 and 2 emissions calculation, the dataset is computed by the application of Well-to-tank and Transmission & Distribution emission factors. This category includes emissions related to the production of fuels and energy purchased and consumed by Frasers Property in the reporting year, that are not already included in Scope 1 or Scope 2. Generally, Total emissions (tCO_2e) = Σ [Electricity/fuel consumption by fuel type] x [Upstream location-based electricity/fuel emission factor] + Σ [Base building electricity consumption] x [Location-based full fuel cycle emission factor].
Scope 3 - Category 4: Upstream Transportation and Distribution	This category captures emissions from transportation and distribution of products purchased between Frasers Property's tier one suppliers and its own operations, in vehicles not owned or operated by the Group. The emissions for this category are captured under Category 1 as part of services that Frasers Property purchases.
Scope 3 - Category 5: Waste Generated in Operations	The waste-type-specific method is applied which involves using emission factors for specific waste types and waste treatment methods. In rare cases, spend-based approach as per Category 1 was applied based on the amount paid for disposal of waste.

	This category includes emissions from third-party disposal and treatment of solid waste and wastewater generated in our controlled operations. This comprises waste from the managed assets, as well as construction waste for the development projects. Waste generated in managed assets where the tenant has full operational control of the asset is excluded as this is considered as tenants' Scope 3 emissions instead. Generally, Total emissions (tCO_2e) = Σ [Total mass of waste type per end-of-life destination] x [End-of-life destination emission factor] + Σ [Total water usage] x [Wastewater emission factor].
Scope 3 - Category 6: Business Travel	Distance-based method is adopted here for emissions calculation, which involves determining the distance and mode of business trips and applying the appropriate emission factor for the mode used. This category includes emissions from the transportation of Frasers Property's employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars. Generally, for air travel, Total emissions (tCO_2e) = Σ [Distance travelled by transport mode and class] x [Emission factor]. For accommodation, Total emissions (tCO_2e) = Σ [Nights spent per room per location] x [Emission factor based on location].
Scope 3 – Category 7: Employee Commuting	We use distance-based calculation which involves collecting data from employees on commuting patterns (distance travelled, mode used for commuting and working from home habits) and applying appropriate emission factors for the modes used. This category includes emissions from the transportation of employees between their homes and their worksites as well as teleworking situations. Emissions from employee commuting may arise from various commuting options such as automobile travel, bus travel, rail travel, air travel and other modes of public transportation (e.g., subway, bicycling, walking etc). Generally, Total emissions (tCO_2e) = Σ ([Total commuting distance for all Full Time Employees (FTE) by mode of transport per year] x [Mode of transport emission factor]) + [Teleworking adjustment]. For employee commuting,

	commuting patterns including typical mode of transport and average commuting distances are derived from staff survey data for our corporate offices and linked to the number of FTE employees in office location.
Scope 3 – Category 8: Upstream Leased Assets	Asset-specific method is adopted to obtain information on fuel and energy related consumption as well as fugitive sources. This category includes emissions from the operation of assets that are leased by Frasers Property in the reporting year and are not already included in our Scopes 1 and 2 emissions. In this category, Frasers Property is considered to be the lessee.
Scope 3 – Category 9: Downstream Transportation and Distribution	Not applicable or relevant for Frasers Property. This would relate to the transportation and distribution of our products (which in our situation are buildings). It is unlikely this will ever be relevant for future inventories, but if emissions relating to this category arises in the future, this section must be updated.
Scope 3 – Category 10: Processing of Sold Products	Category 10 captures emissions from processing of sold intermediate products by third parties subsequent to its sale. This is not applicable to Frasers Property being a real estate investor, developer and manager.
Scope 3 – Category 11: Use of Sold Products	Direct use-phase emissions calculation is used to break down the use phase, measure emissions per product, and aggregate emissions from all types of energy consumption. As Frasers Property's sold products are buildings, the indirect use emissions calculation is not applicable. The emissions from use would include Scopes 1 and 2 emissions of the new occupiers of the building for the asset's remaining useful life. The "useful life" of a building is the number of years the building is expected to be operational. Although the useful life of a building is challenging to determine, a default value of 60 years is adopted following the recommendations mentioned in the GHG Protocol and the UK Green Building Council's Guide to Scope 3 Reporting in Commercial Real Estate. An alternate useful life of a building is permitted when business units justify the departure according to the depreciation rates provided by their country-specific governing laws on

	taxation. The age of the building (at time of sale), annual emissions and grid decarbonisation rates determine emissions related to the Use of Sold Products.
Scope 3 – Category 12: End of Life Treatment of Sold Products	This category includes emissions from the waste disposal and treatment of products sold by Frasers Property at the end of their life. In our case, this means the end-of-life treatment from demolition of assets sold in the reporting year. Similar assumptions to Scope 3 Category 11 apply for this category.
Scope 3 – Category 13: Downstream Leased Assets	Same method of calculation for Scopes 1 and 2 emissions is applied only pertaining to the tenant-controlled areas. This category includes emissions from the operation of assets that are owned by Frasers Property and are leased to tenants. In this category, Frasers Property is considered to be the lessor, accounting for emissions relating to Scopes 1 and 2 of our tenants' emissions. Where data gaps exist for a property, an estimate of the Scopes 1 and 2 emissions based on an average benchmark derived from primary data sources of similar types of building activity or industry averages.
Scope 3 – Category 14: Franchises	This category includes emissions from the operation of franchises and is not applicable to our business model.
Scope 3 – Category 15: Investments	Both the equity and debt methods are used to account for emissions associated with Frasers Property's investments in the reporting year, which have not already been included in Scopes 1 and 2 emissions. Category 15 applies to the various investments which Frasers Property has no operational control over, but has a financial interest in. This includes but not limited to equity investments, associates and in some cases, joint ventures of our business units. Generally, Total emissions (tCO_2e) = Σ [Equity share] x [Scopes 1 and 2 emissions of invested asset].

GHG emission factors used to calculate our GHG inventory are mainly from:

- National Greenhouse Account Factors by Australia's National Greenhouse and Energy Reporting Scheme[12];
- Greenhouse Gas Reporting Conversion Factors by the United Kingdom's Department for Energy Security and Net Zero[13] and Department for Business, Energy & Industrial Strategy[14];
- Singapore Energy Statistics from Energy Market Authority[15];
- Entwicklung der Spezifischen Treibhausgas-Emissionen des Deutschen Strommix in den Jahren by the Umweltbundesamt[16] (German Environment Agency);
- Association of Issuing Bodies for The Netherlands[17];
- International Energy Agency[18] and
- Inventory of Carbon and Energy[19].

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[12] *Australia's National Greenhouse and Energy Reporting Scheme: https://www.dcceew.gov.au/climate-change/emissions-reporting/national-greenhouse-energy-reporting-scheme*
[13] *United Kingdom's Department for Energy Security and Net Zero: https://www.gov.uk/government/organisations/department-for-energy-security-and-net-zero*
[14] *United Kingdom's Department for Business, Energy & Industrial Strategy: https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy*
[15] *Energy Market Authority: https://www.ema.gov.sg/*
[16] *Umweltbundesamt (German Environment Agency): https://www.umweltbundesamt.de/*
[17] *Association of Issuing Bodies for The Netherlands: https://www.aib-net.org/*
[18] *International Energy Agency: https://www.iea.org/*
[19] *Inventory of Carbon and Energy: https://ghgprotocol.org/Third-Party-Databases/Bath-ICE*