



Australian Government



Financed emissions - Basis of preparation

October 2025

Financed emissions accounting methodology for the 2023-24 financed emissions reported in the CEFC Annual Report 2025.

The CEFC is a corporate Commonwealth entity established by the Australian Government under the *Clean Energy Finance Corporation Act 2012* (CEFC Act).

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1. Introduction

This Financed Emissions Basis of Preparation (document) provides formulae, emission factors and resolutions relevant to the calculation of the CEFC 2023-24 financed emissions. The document provides details of the accounting methodology adopted and is intended for users of the CEFC Annual Report 2025.

The CEFC financed emissions accounting methodology is informed by the GHG Protocol and the Partnership for Carbon Accounting Financials' (PCAF) Global GHG Accounting and Reporting Standard, Part A.

The CEFC calculates financed emissions using the financial control approach.

2. Formulae lookup table

The calculation of the financed emissions for the CEFC portfolio involves different formulae and data sets specific to the investment activity and/or asset class. The formula lookup table (**Table 1**) indicates the formula used for each investment type.

The subsequent sections provide detail on the specific calculations, data sources and references related to each formula, including the GHG emission data sources, formulae and the attribution formula for the following:

- P1. Project finance: Operational asset(s)
- P2. Project finance: Construction phase
- C1. Corporate finance (Debt)
- C2. Corporate finance (Listed equity)
- C3. Corporate finance (Unlisted equity)
- M1. Motor vehicle loans.

Table 1. Financed emissions formula lookup table

CEFC investment area	PCAF Asset Class	CEFC platform	Data boundary	Phase	Financed emission formula
Renewable energy and storage	Business Loans and Unlisted Equity ¹	Grid	Asset(s)	Operational	P1. Project Finance: Operational asset(s)
		Solar and Storage, BESS, Wind	Construction site	Construction	P2. Project Finance: Construction phase
	Project Finance	Grid	Asset(s)	Operational	P1. Project Finance: Operational asset(s)
		Solar and Storage, BESS, Wind	Construction site	Construction	P2. Project Finance: Construction phase
Energy efficiency and decarbonisation	Business Loans and Unlisted Equity	Debt Markets Infra Natural Capital Property WA and Industry	Corporate GHG emissions boundary		C1. Corporate Finance (Debt) or C3. Corporate Finance (Unlisted Equity)
	Commercial Real Estate	Infra	Asset (s)	Operational	P1. Project Finance: Operational asset(s)
		Property	Construction site(s)	Construction	P2. Project Finance: Construction phase
	Listed Equity and Corporate Bonds	Debt Markets	Corporate GHG emissions boundary		C1. Corporate Finance (Debt) or C2. Corporate Finance (Listed Equity)
	Motor Vehicle Loan	Debt Markets	Vehicle emissions, eligible loans		M1. Motor vehicle loans
	Project Finance	Infra	Asset(s)		P1. Project Finance: Operational asset(s)
		Natural Capital	Asset(s)		P1. Project Finance: Operational asset(s)
		Property	Asset(s)	Operational	P1. Project Finance: Operational asset(s)
			Construction site(s)	Construction	P2. Project Finance: Construction phase
Technology development	Business Loans and Unlisted Equity	Alternative Fuels	Corporate GHG emissions boundary		C1. Corporate Finance (Debt) or
		Growth Capital			

¹ CEFC business loans and unlisted equity in the renewable energy and storage sectors fund specific assets and are hence classified as Project Finance in line with the PCAF Standard.

		Innovation Fund			C3. Corporate Finance (Unlisted Equity)
	Listed Equity and Corporate Bonds	Alternative Fuels	Corporate GHG emissions boundary	→	C1. Corporate Finance (Debt) or C2. Corporate Finance (Listed Equity)
	Project Finance	Alternative Fuels	Asset(s)	Operational	P1. Project Finance: Operational asset(s)
	Project Finance	Alternative Fuels	Asset(s)	Construction	P2. Project Finance: Construction phase

3. Conditions for deeming zero emissions

Where the investment meets the following conditions or is in one of the phases for the financial year being reported, the emissions are deemed to be immaterial and therefore deemed zero.

- CEFC commitment did not reach financial close in the financial year
- Pre-construction (e.g. funding of planning and design)
- Pre-deployment (e.g. prior to issue of any EV loans)
- Commissioning / testing phase (between construction and operation for the full year).

4. Formulae and data sources

P1 - Project Finance: Operational Asset(s)

Asset class definition: This asset class includes all on-balance sheet loans or equity to projects or activities that are designated for specific purposes, i.e., with known use of proceeds as defined by the GHG Protocol. The financing is designated for a defined activity or set of activities, such as the construction and operation of a wind or solar project, or energy efficiency projects. This is aligned to the PCAF Asset Class definition.

CEFC applications:

- Financing of operational renewable energy assets, and their enablers
- Co-financing of home energy upgrade loans
- Financing of corporate entities to complete specified upgrades, projects or asset installations.

P1 GHG emissions calculations

	Data source	Calculation methodology
Primary data sources - Scope 1 and 2 emissions	Activity data provided by counterparties: – Petrol consumption (litres / year) – Diesel consumption (litres / year) – Electricity consumption (kWh / year) – Gas consumption (GJ/ year).	Scope 1 and 2 emissions calculated in line with NGA Factors² , and relevant emission factors.

² National Greenhouse Account Factors published by the Clean Energy Regulator annually

	Annual Scope 1 and 2 emissions as reported to the Clean Energy Regulator.	None
	Corporate Sustainability reports, Annual Reports, ESG Reports and Data Books, Climate Disclosure reports.	In cases where scope 1 and 2 are reported as a single number, scope 1 and 2 are disaggregated based on available data.
Primary data sources - Scope 3 emissions	Activity data provided by counterparties: – Petrol consumption (litres / year) – Diesel consumption (litres / year) – Electricity consumption (kWh / year) – Gas consumption (GJ/ year).	Scope 3 emissions calculated in line with NGA Factors , and relevant emission factors.
	Corporate Sustainability reports, Annual Reports, ESG Reports and Data Books, Climate Disclosure reports.	None
Secondary data sources	– Operation and maintenance annual spend. – Total Assets – Total Annual Revenue.	Use of PCAF database emission factors based on spend, GICS ³ industry and sub-industry.
GHG emissions boundary	– GHG emissions boundary aligns to the project boundary and/or asset(s) funded.	
Emissions Factor sources	– National Greenhouse Account workbooks, emission factors and formula – PCAF database – Exiobase database.	
Conditions for deeming zero emissions	– Did not reach financial close in financial year. – Home energy efficiency upgrades, solar PV installations deemed zero emissions.	

P1. Attribution factor calculations

Context	Formula
CEFC provides debt or equity, and other lenders provided debt and/or equity	$Attribution = \frac{CEFC \text{ Total Commitment (minus any repayments made)}}{\text{Total Equity} + \text{Total Debt available to the project}}$
CEFC finances via lending institutions, loans for energy efficiency upgrades, including loans under the Home Energy Upgrade Fund	$Attribution = \sum_L \frac{\text{Outstanding loan amount}}{\text{Original loan amount}}$ Where L = all loans within the cofinancing loan report, with a positive loan balance on 30 June 2024.
% ownership	Where the CEFC has a standing % ownership of the asset, this ownership % is used as the attribution factor.

³ GICS: Global Industry Classification Standard

P2 - Project Finance: Construction phase

Asset class definition: This asset class includes all on-balance sheet loans or equity to projects or activities that are designated for specific purposes, i.e. with known use of proceeds as defined by the GHG Protocol. The financing is designated for a defined activity or set of activities, such as the construction and operation of a wind or solar project, or energy efficiency projects. This is aligned to the PCAF Asset Class definition.

CEFC applications:

- Financing of renewable energy assets, and their enablers, during the construction phase
- Financing of commercial and residential property assets during the construction phase.

P2. GHG emissions calculations

	Data source	Calculation methodology
Primary data sources - Scope 1 and 2 emissions	Activity data provided by counterparties: – Petrol consumption (litres / year) – Diesel consumption (litres / year) – Electricity consumption (kWh / year) – Gas consumption (GJ/ year).	Scope 1 and 2 emissions calculated in line with NGA Factors , and relevant emission factors.
	Corporate Sustainability reports, Annual Reports, ESG Reports and Data Books, Climate Disclosure reports.	In cases where scope 1 and 2 are reported as a single number, scope 1 and 2 are disaggregated based on available data.
Primary data sources - Scope 3 emissions	Activity data provided by counterparties: – Petrol consumption (litres / year) – Diesel consumption (litres / year) – Electricity consumption (kWh / year) – Gas consumption (GJ/ year).	Scope 3 emissions calculated in line with NGA Factors , and relevant emission factors.
Secondary data sources	– Construction annual spend (or available proxy).	Use of PCAF database emission factors based on spend, GICS industry and sub-industry.
GHG emissions boundary	GHG emissions boundary aligns to the construction project(s) being funded.	
Emissions Factor sources	National Greenhouse Account workbooks , emission factors and formula PCAF database Exiobase database.	
Conditions for deeming zero emissions	– Did not reach financial close in financial year – Pre-construction phase (contracting, planning, design phase only).	

P2. Attribution factor calculations

Context	Formula
CEFC provides debt, and other lenders provided debt and/or equity	$Attribution = \frac{CEFC\ Total\ Commitment\ (minus\ any\ repayments\ made)}{Total\ Equity + Total\ Debt\ available\ to\ the\ project}$
% ownership	Where the CEFC has a standing % ownership of the asset, this ownership % is used as the attribution factor.

C1 Corporate Finance (Debt)

Relevant PCAF Asset Class: Business Loans and Unlisted Equity.

Asset class definition: Business loans include all on-balance sheet loans and lines of credit to businesses, nonprofits, and any other structure of organization that are not traded on a market and are for general corporate purposes, i.e. with unknown use of proceeds as defined by the GHG Protocol. Revolving credit facilities, overdraft facilities, and business loans secured by real estate such as Commercial Real Estate-secured lines of credit are also included. This is aligned to the PCAF Asset Class definition.

CEFC applications:

- Financing activities with company/ entity wide actions focusing on renewables, energy efficiency, GHG emissions reductions and/or in line with an agreed emissions reduction target (funding not restricted to specific projects or assets)
- Financing corporations / entities in net zero enabling industries, including industries supporting the Rewiring the Nation rollout
- Investments into established corporations and early-stage climate innovation companies through managed funds (private equity).

C1. GHG emissions calculations

	Data source	Calculation methodology
Primary data sources - Scope 1 and 2 emissions	Corporate sustainability reports, annual reports, ESG reports and data books, climate disclosure reports.	In cases where scope 1 and 2 are reported as a single number, scope 1 and 2 are disaggregated based on available data.
Primary data sources - Scope 3 emissions		None.
Secondary data sources	– Total assets – Total annual revenue.	Use of PCAF database emission factors based on spend, GICS industry and sub-industry.
GHG emissions boundary	– GHG emissions boundary aligns to the corporate entity boundary that CEFC has invested in.	
Emissions Factor sources	– PCAF database – Exiobase database.	
Conditions for deeming zero emissions	– Did not reach financial close in financial year – Funding the acquisition of biodiversity offsets.	

C1. Attribution factor calculations

Attribution formula	Context	Formula
	CEFC provides debt or equity, and other lenders provided debt and/or equity.	$\text{Attribution} = \frac{\text{CEFC Total Commitment (minus any repayments made)}}{\text{Most accurate valuation of corporation/asset *}}$ *Fair value of asset if available, otherwise book value.
	% ownership.	Where the CEFC has a standing % ownership of the asset, this ownership % is used as the attribution factor.

C2 Corporate Finance (Listed Equity)

Relevant PCAF Asset Class: Business Loans and Listed Equity.

Asset class definition: This asset class includes all on-balance sheet listed corporate bonds and all on-balance sheet listed equity that are traded on a market and are for general corporate purposes (i.e., unknown use of proceeds as defined by the GHG Protocol). This is aligned to the PCAF Asset Class definition.

CEFC applications:

- Financing activities in listed companies with company/entity wide actions focusing on renewables, energy efficiency, GHG emissions reductions and/or in line with an agreed emissions reduction target (funding not restricted to specific projects or assets).

C2. GHG emissions calculations

	Data source	Calculation methodology
Primary data sources - Scope 1 and 2 emissions	Annual corporate scope 1 and 2 emissions as reported to the Clean Energy Regulator.	None.
	Corporate sustainability reports, annual reports, ESG reports and data books, climate disclosure reports.	In cases where scope 1 and 2 are reported as a single number, scope 1 and 2 are disaggregated based on available data.
Primary data sources - Scope 3 emissions		None.
Secondary data sources	- Total assets - Total annual revenue.	Use of PCAF database emission factors based on spend, GICS industry and sub-industry.
GHG emissions boundary	GHG emissions boundary aligns to the corporate entity boundary that CEFC has invested in.	
Emissions Factor sources	- PCAF database - Exiobase database.	
Conditions for deeming zero emissions	Did not reach financial close in financial year.	

C2. Attribution factor calculations

Attribution formula	Context	Formula
	CEFC provides equity, and other lenders provided debt and/or equity.	$\text{Attribution} = \frac{\text{Fair value of CEFC equity}}{\text{Market value of corporation/asset}}$
	[preferred approach] CEFC provides equity, and other lenders provided debt and/or equity.	$\text{Attribution} = \frac{\text{CEFC Total Commitment (minus any cancellations)}}{\text{Market value of corporation/asset}}$
	% ownership.	Where the CEFC has a standing % ownership of the asset, this ownership % is used as the attribution factor.

C3. Corporate Finance (Unlisted Equity)

Relevant PCAF Asset Class: Business Loans and Unlisted Equity

Asset class definition: 'Business loans and unlisted equity' include all on-balance sheet loans and lines of credit to businesses, nonprofits, and any other structure of organisation that are not traded on a market and are for general corporate purposes, i.e., with unknown use of proceeds as defined by the GHG Protocol. Revolving credit facilities, overdraft facilities, and business loans secured by real estate such as CRE-secured lines of credit are also included. This is aligned to the PCAF Asset Class definition.

CEFC applications:

- Financing activities in unlisted companies with company/ entity wide actions focusing on energy efficiency, ghg emissions reductions and/or in line with an agreed emissions reduction target (funding not restricted to specific projects or assets).

C3. GHG emissions calculations

	Data source	Calculation methodology
Primary data sources - Scope 1 and 2 emissions	Annual corporate scope 1 and 2 emissions as reported to the Clean Energy Regulator.	None
	Corporate sustainability reports, annual reports, ESG reports and data books, climate disclosure reports.	In cases where scope 1 and 2 are reported as a single number, scope 1 and 2 are disaggregated based on available data.
Primary data sources - Scope 3 emissions		None
Secondary data sources	– Total Assets – Total Annual Revenue.	Use of PCAF database emission factors based on spend, GICS industry and sub-industry.
GHG emissions boundary	– GHG emissions boundary aligns to the corporate entity boundary that CEFC has invested in.	
Emissions Factor sources	– PCAF database – Exiobase database.	
Conditions for deeming zero emissions	– Did not reach financial close in financial year.	

C3. Attribution factor calculations

Attribution formula	Context	Formula
	CEFC provides equity, – Fair value of CEFC equity and asset on 30 June is known.	$Attribution = \frac{\text{Fair value of CEFC Equity}}{\text{Fair value of corporation/asset}}$
	CEFC provides equity; – Fair value of CEFC equity and asset on 30 June is not known Equity and debt from other lenders is known.	$Attribution = \frac{\text{CEFC Total Commitment (minus any cancellations)}}{\text{Total Debt + Total Equity}}$

	CEFC provides equity; – Fair value of CEFC equity and asset on 30 June is not known – Equity from other investors is known – Debt from other lenders is not known.	<i>Attribution</i> = $\frac{\text{CEFC Total Commitment (minus any cancellations)}}{\text{Total Equity}}$
	% ownership	Where the CEFC has a standing % ownership of the asset, this ownership % is used as the attribution factor.

M1. Motor vehicle finance

Relevant PCAF Asset Class: Motor Vehicle Loans

Asset class definition: This asset class refers to on-balance sheet loans and lines of credit to businesses and consumers for specific (corporate or consumer) purposes - namely the finance of one or several motor vehicles. This is aligned to the PCAF Asset Class definition.

CEFC applications:

- Co-financing of low emission, electric and hybrid vehicles through loan programs delivered by bank and non-bank financial institutions.

M1. GHG emissions calculations

	Data source	Calculation methodology
Primary data sources - Scope 1 and 2 emissions	ICE and Hybrid vehicles: Fuel efficiency (l/100km) based on manufacturer claim, green vehicle guide , or on road test.	Annual fuel consumption $Q(\text{litres}) = L \times \frac{K}{100}$ Where: L = Fuel efficiency rating of specific purchased vehicle (L/100km) K = Average km travelled in a car per person in the Australian State where the loan was made, Data source: Australian Bureau of Statistics Annual GHG emissions $tCO_{2-e} = (Q \times EC \times EF)$ Where: Q = Quantity of fuel (L) EC = Energy content of fuel (source: National greenhouse account factors) EF = Scope 1 emission factor of fuel (source: National greenhouse account factors)
	Electric vehicles: Energy efficiency (Wh/km) based on manufacturer claim, green vehicle guide , or on road test.	Annual electricity consumption $Q = \frac{W \times K}{1000}$ Where: W = Energy efficiency rating of purchased vehicle (Wh/km) K = Average km travelled in a car per person in the Australian State where the loan was made, Data source: Australian Bureau of Statistics Annual GHG emissions $tCO_{2-e} = \frac{(Q \times EF)}{1000}$ Where: Q = Quantity of electricity (Wh) EF = Scope 2 emission factor of grid electricity in the Australian State where the loan was made (source: National Greenhouse Account workbooks).
Primary data sources - Scope 3 emissions	ICE and Hybrid vehicles: As above.	As above, scope 3 emission factor for petrol and diesel used (source: National Greenhouse Account workbooks).

	Electric vehicles: As above.	As above, scope 3 emission factor of grid electricity in the Australian State where the loan was made ((source: National Greenhouse Account workbooks)).
GHG emissions boundary	–	GHG emissions boundary aligns to the vehicles in the loan book that are deemed eligible for CEFC concessional funding.
Emissions Factor sources	–	National Greenhouse Account workbooks , emission factors and formula
	–	PCAF database
	–	Exiobase database.
Conditions for deeming zero emissions	–	Did not reach financial close in financial year.

M1. Attribution factor calculations

Attribution formula	Context	Formula
	– CEFC finances via a lending institution, a loan to an individual to purchase or loan an eligible vehicle (EV, or PHEV).	$Attribution = \sum_L \frac{Outstanding\ loan\ amount}{Original\ loan\ amount}$ Where L = all loans within the cofinancing loan report, with a positive loan balance at 30 June 2024

5. Methodology and data limitation

The following table confirms applied resolutions for data gaps arising through the collation of data and calculation processes. It also confirms the investments that were excluded from the FY23-24 financed emissions data, and the reasons for their exclusion.

Methodology and data limitations

Topic	Notes
Scope 2 emissions	All scope 2 emissions figures are location-based calculations.
Solar/Wind farm operational GHG emissions	Solar and wind farm emissions are entered in their entirety as recorded in the Clean Energy Regulator (CER) electricity sector emissions dataset. However, where invested through a fund, emissions reported in CER is multiplied by CEFC % holding in fund.
Solar/Wind farm operational GHG emissions	Scope 3 energy emissions calculated by: a) scope 1 x (NGA Factors Diesel EF scope 3 / NGA Factors Diesel EF scope 3) + b) scope 2 x (NGA Factors National Scope 3 EF / NGA Factors National Scope 2 EF).
Refinanced assets	Refinancing and follow on investment in assets already in the portfolio are recorded and grouped into the current investment to avoid double counting the GHG emissions of a single asset.
Motor vehicle loan books	For motor vehicle loan books, attribution is applied evenly across all vehicles by dividing both original loan and principal outstanding by the number of individual vehicles and applying an equal portion to each vehicle.
Aggregation loans (vehicles)	Noting the high number of variants of a car model, the highest fuel or energy consumption of all variants is applied to all to ensure that the estimate is conservative. The documentation of model variants is not uniform across and within aggregation monthly reports. Where energy or fuel efficiency is recorded as a range, the highest value is used to ensure estimate is conservative. Majority of ratings are from the manufacturer. Further where one manufacturer has two models with the equal or near equal fuel or energy efficiency, all vehicles are entered under manufacturer name (make) and are given the lower of the two efficiency ratings.
Aggregation loans (vehicles)	Energy consumption (scope 2) for PHEV has not been estimated.
Attribution	CEFC allocates a maximum 100%.
Aggregation loans (energy efficiency upgrades)	Air conditioner energy consumption has not been calculated.
Data quality scoring	Where data source not aligned with one of the PCAF Data Quality Scoring options outlined in PCAF Standard, Part A, section 10.1, the next closest option is selected. Where data source is not clear or not known, score 5, option 3c is selected.

Methodology and data limitations

Topic	Notes
Emissions abatement	To estimate the comparative emissions abatement, the CEFC estimated abatement for the relevant year is multiplied by the investment specific attribution factor. CEFC estimates lifetime abatement based on investment specific characteristics including deployment rates, and includes abatement for the life of the asset, regardless of the investment tenure. Where re-financing of a single asset occurs, measures are taken to ensure that the abatement is not duplicated in the system.

6. Baseline recalculation protocol

CEFC will complete a recalculation of (base year) financed emissions where necessary to ensure consistency, comparability, and relevance of our reported GHG emissions data over time, in line with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard requirement.

A recalculation of the CEFC baseline will be considered in the event of a material change to the purpose of the CEFC, such as a change to the Clean Energy Finance Corporation Act 2012 that significantly impacts our structure or results in a significant change to our inventory methodology.

If a material change warrants a base year emissions recalculation, we will disclose that material change as an integral part of our recalculation of our base year financed emissions.

7. Emission factors

Emission Factors

Emission source	Emission Factor					Data Source
Natural gas (pipeline) consumption, scope 1	Table 5. Direct (Scope 1) emission factors for the consumption of gaseous fuels including liquefied natural gas. Table 6. Indirect (Scope 3) emission factors for the consumption of natural gas.					National Greenhouse Account workbooks.
Petrol consumption, scope 1 and scope 3	Table 8 Direct (scope 1) and indirect (scope 3) emission factors for the consumption of transport fuels in different transport equipment.					
Diesel consumption, scope 1 and scope 3	Table 7. Direct (Scope 1) and indirect (scope 3) emission factors for the consumption of liquid fuels, including certain petroleum-based products for stationary energy purposes.					
Electricity, scope 2 and scope 3	Table 1. Indirect (scope 2 and scope 3) emission factors from consumption of purchased or acquired electricity: Location based approach.					
Heavy vehicles and equipment						1) Calculations by a third-party consultant commissioned by the CEFC 2) Kobelco fuel savings (website) 3) Caterpillar owning and operating costs.
	ASSET	kWh/ yr Litres Diesel/ yr	Scope 1 t CO2e /yr	Scope 3 t CO2e /yr	Data Source	
	Other equipment not specified		58	14	1	
	General HVAC		58	14	1	
	General cold storage Equipment		58	14	1	
	General other on-farm Equipment		58	14	1	
	General tractors and headers		58	14	1	
	General Other industrial equipment		58	14	1	
	General Industrial Commercial Refrigeration		58	14	1	
	General recycling and processing facilities		58	14	1	
	General wheel loaders		101	24.82	1	
	General bulldozers		463	113.78	1	
	General excavators		107	26.29	1	
	General forestry equipment		58	14	1	
	General heavy vehicles		58	14	1	
General cranes		38	9.34	1		

	Kobeko excavator	30,000	81.5	20.0	2
	Kobeko wheel loader	38,000	103.3	25.4	2
	Kobeko scraper	122,000	331.5	81.5	2
	Caterpillar excavator (336 2D)	45,500	123.6	30.4	3
	Caterpillar excavator (323FL)	32,750	89	21.9	3
	Caterpillar excavator (326FL)	40,500	110.1	27.0	3
	Caterpillar excavator (336FL)	54,000	146.7	36.1	3
	Caterpillar loader (966m)	34,200	92.9	22.8	3
	Caterpillar loader (972M)	39,200	106.5	26.2	3
	Caterpillar scrapers (627K)	188,100	511.2	125.6	3
	Caterpillar scrapers (637G)	221,100	600.8	147.6	3
	Caterpillar bulldozer (D10T)	170,750	464.0	114.0	3
	Other equipment not specified	0	57	14	1
	Solar PV installations	0	0	0	n/a
Standard Residential Dwelling	Standard residential dwelling				
	State	Ave electricity consumption per house (kWh)	Ave gas consumption per house (GJ)	Gas emissions Scope 1 tCO2-e	Electricity emissions Scope 2 tCO2-e
	Electricity (scope 3) + Gas (scope 3) emissions Scope 3 tCO2-e				
	Data source:	1	1		
	NSW	6,362	18.4	0.95	5.03
	VIC	5,077	49.8	2.57	4.87
	QLD	6,169	7.2	0.37	4.94
	SA	6,171	16.2	0.83	2.16
	WA	6,000	15.0	0.77	4.08
	TAS	9,475	34.9	1.8	1.52
	NT	9,000	7.2	0.37	5.13
	ACT	7,722	34.9	1.8	6.1
	AVERAGE			1.18	4.23
					0.66

1)
Calculations by a third-party consultant commissioned by the CEFC.

Efficient (7 Star rated) residential dwelling	NaTHERs 7 star rated residential dwellings				1) Calculations by a third- party consultant commissioned by the CEFC.
	State	Gas emissions	Electricity emissions	Electricity (scope 3) + Gas (scope 3) emissions	
	Data source:	1	1	1	
		Scope 1 tCO2-e	Scope 2 tCO2-e	Scope 3 tCO2-e	
	NSW	0.85	4.48	0.63	
	VIC	2.33	4.41	0.86	
	QLD	0.28	3.71	0.46	
	SA	0.70	1.83	0.31	
	WA	0.64	3.38	0.48	
	TAS	1.50	1.27	0.38	
	NT	0.23	3.13	0.38	
	ACT	1.60	5.44	0.86	
	AVERAGE	1.02	3.46	0.54	

Vehicle Emission Factors

Noting the high number of variants of a car model, the highest fuel or energy consumption of all variants is applied to all to ensure that the estimate is conservative. The documentation of model variants is not uniform across and within aggregation monthly reports.

Where energy or fuel efficiency is recorded as a range, the highest value is used to ensure estimate is conservative. Majority of ratings are from the manufacturer.

Further where one manufacturer has two models with the equal or near equal fuel or energy efficiency, all vehicles are entered under manufacturer name and are given the lower of the two efficiency ratings.

Data sources include: [Green Vehicle Guide](#), manufacturer fuel ratings and published on-road tests.

Fuel	CAR	EV-PHEV: Wh /km	Fuel	CAR	L / km
EV	ABARTH 500e	181	HYBRID	ALFA ROMEO TONALE	0.015
EV	ALFA ROMEO TONALE EV	241	HYBRID	BMW X5	0.096
EV	Fonzarelli	80	HYBRID	BMW X7	0.096
EV	Leapmotor C10	198	HYBRID	BYD SEAL	0.014
EV	Mazda MX-30 EV	185	HYBRID	BYD SHARK	0.02
EV	MERCEDES EVITO	232	HYBRID	CUPRA FORMENTOR	0.019
EV	MERCEDES GLC EV	98	HYBRID	CUPRA LEON - E-HYBRID	0.018
EV	POLESTAR 2	234	HYBRID	FORD ESCAPE	0.015
EV	RENAULT KANGOO EV	159	HYBRID	GWM Haval	0.008
EV	AUDI E-TRON GT	192	HYBRID	HINO 300 SERIES	0.111
EV	AUDI RS E-TRON GT	202	HYBRID	HONDA ACCORD	0.049
EV	BMW G26	200	HYBRID	HONDA CIVIC	0.055
EV	BMW i3	161	HYBRID	HONDA ZR-V	0.065
EV	BMW i4	161	HYBRID	HYUNDAI KONA	0.04
EV	BMW IX	180	HYBRID	JEEP COMPASS	0.021
EV	BMW IX2	170	HYBRID	KIA SORENTO	0.016
EV	BMW IX3	225	HYBRID	LANDROVER SPORT	0.027
EV	BMW IX4	185	HYBRID	LEXUS CT200H	0.041
EV	BYD ATTO	160	HYBRID	LEXUS IS300H	0.07
EV	BYD DOLPHIN	173	HYBRID	LEXUS RX350	0.057
EV	BYD SEAL	185	HYBRID	LEXUS UX250	0.043
EV	EV bus	1500	HYBRID	LEXUS 200H	0.043
EV	CUPRA BORN	170	HYBRID	LEXUS NX300H	0.058
EV	FIAT 500	159	HYBRID	LEXUS NX450h	0.013
EV	FORD E-TRANSIT	387	HYBRID	LEXUS RX450H	0.057
EV	GENESIS GV60	181	HYBRID	MAZDA CX-60	0.074
EV	HYUNDAI IONIQ	143	HYBRID	MAZDA MX-30	0.076
EV	HYUNDAI KONA	157	HYBRID	MERCEDES A CLASS	0.016
EV	KIA EV6	206	HYBRID	MERCEDES E CLASS	0.025
EV	KIA EV9	228	HYBRID	MG MG HS	0.017
EV	KIA SG NIRO	162	HYBRID	Mini Cooper E	0.05

Vehicle Emission Factors

EV	MERCEDES EQA	171
EV	MERCEDES EQB	200
EV	MERCEDES EQC	214
EV	MERCEDES EQE	176
EV	MERCEDES EQS	171
EV	MG Essence 64	138
EV	MG Excite 51	184
EV	MG Excite 64	130
EV	MG MG4	177
EV	MG MGZS	177
EV	MINI COOPER	161
EV	MINI COUNTRYMAN	170
EV	NISSAN LEAF	99
EV	PEUGEOT E-2008	161
EV	POLESTAR	172
EV	PORSCHE CAYENNE	209
EV	PORSCHE Taycan	213
EV	TESLA Model 3	140
EV	TESLA Model S	167
EV	TESLA Model X	191
EV	TESLA Model Y	146
EV	VOLVO C40	179
EV	VOLVO EX30	175
EV	VOLVO XC40	181

HYBRID	mitsubishi canter	0.0775
HYBRID	mitsubishi eclipse cross	0.019
HYBRID	mitsubishi outlander	0.017
HYBRID	peugeot 408	0.013
HYBRID	peugeot 508	0.018
HYBRID	peugeot 3008	0.016
HYBRID	toyota camry	0.057
HYBRID	toyota c-hr	0.046
HYBRID	toyota corolla	0.047
HYBRID	toyota prius	0.034
HYBRID	toyota rav 4	0.05
HYBRID	toyota yaris	0.036
HYBRID	volvo xc60	0.016
HYBRID	volvo xc90	0.082
HYBRID	volvo e6 hybrid bus	0.257
HYBRID	kia niro	0.04

About the CEFC

The CEFC is Australia's specialist climate investor, helping cut emissions in the race towards net zero by 2050. We invest in the latest technologies to generate, store, manage and transmit clean energy. Our discounted asset finance programs help put more Australians on the path to sustainability, in their homes and on the road. CEFC capital is also backing the net zero transformation of our natural capital, infrastructure, property and resources sectors, while providing critical capital for the emerging climate tech businesses of tomorrow. With access to more than \$32 billion from the Australian Government, we invest to deliver a positive return for taxpayers.