

PUBLIC DISCLOSURE STATEMENT

ORIGIN ENERGY LIMITED
ORIGIN GO ZERO ELECTRICITY
PRODUCT CERTIFICATION
CY2022

Climate Active Public Disclosure Statement







NAME OF CERTIFIED ENTITY	Origin Energy Limited							
REPORTING PERIOD	January 2022 – 31 December 2022 Arrears Report							
DECLARATION	To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.							
	Duncan Permezel General Manager, Consumer & Property - Retail Date 16.10.2023							



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Version March 2023.



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	48,601 tCO2-e
THE OFFSETS USED	20% ACCUs, 80% VCUs
RENEWABLE ELECTRICITY	80.14%
CARBON ACCOUNT	Prepared by: Origin Energy
TECHNICAL ASSESSMENT	18 May 2021 Jessica Boekhoff Point Advisory Next technical assessment due: 18 May 2024
THIRD PARTY VALIDATION	Type 3 17 May 2021 Tim Grant Lifecycles (Life Cycle Strategies Pty Ltd)

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2. CARBON NEUTRAL INFORMATION

Description of certification

This Public Disclosure Statement (PDS) relates to Origin Energy Limited (Origin)'s ongoing carbon neutral certification, for its electricity product under Climate Active. This product is marketed and sold as "Origin Go Zero Electricity".

The emissions reported in this PDS are for CY2022. CY2022 data is based on actual sales from the various market segments applicable to "Origin Go Zero Electricity". Total emissions for "Origin Go Zero Electricity" sold are calculated to be 48,601 t CO2-e in CY2022. This is higher than the CY2021, due to increased product uptake in CY22 and covering a full year of sales.

Product description

The "Origin Go Zero Electricity" product allows customers to offset greenhouse gas emissions associated with the production, transmission, distribution, and consumption of electricity.

"Origin Go Zero Electricity" is offered as an opt-in product to Origin's electricity customers across all current and future market segments, including residential, small business, commercial and industrial customers, and consumers of electricity for electric vehicles.

The emissions boundary for this product entails relevant cradle-to-grave emissions. Further details are provided in Section 3, including quantified and non-quantified emissions. It includes all activities associated with production, transmission, distribution, and consumption of electricity for customers who opt-in to the product.

The functional unit is Megawatt hours (MWh) of electricity consumed, with emissions expressed as tonnes of CO2-e (t CO2-e) per MWh.



3.EMISSIONS BOUNDARY

Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

Quantified emissions have been assessed as 'attributable processes' that become the product, make the product and carry the product through its life cycle. These have been quantified in the carbon inventory.

Non-quantified emissions have been assessed as attributable and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

Outside the emissions boundary

Non-attributable emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.



Inside emissions boundary

Quantified

Electricity consumed by optin customers by state during the reporting period, end use combustion

Electricity sold – extraction, processing, and distribution of fuels combusted

Origin retailing activities, including:

Construction Materials and

Services

Electricity

ICT services and equipment

Office equipment & supplies

Postage, courier and freight

Professional Services

Stationary Energy (gaseous

fuels)

Transport (Air)

Transport (Land and Sea)

Waste

Working from home

Non-quantified

Corporate water use related to electricity retailing

Optionally included

N/A

Outside emission boundary

Non-attributable

Corporate activities not related to electricity retailing.



Product process diagram

Cradle-to-grave

Upstream emissions

Fuel Production

- Emissions associated with generation of electricity purchased by opt-in customers by State in the reporting period including extraction, processing and transportation of fuels combusted
- Transmission and distribution
- Emissions associated with the transmission and distribution of electricity to opt-in customers in the reporting period.

Excluded emission sources

- Corporate activities not related to electricity retailing.
- Corporate water use related to electricity retailing is excluded.

Retail activities

- Construction Materials and Services
- Electricity
- ICT services and equipment
- Office equipment & supplies
- Postage, courier and freight
- Professional Services
- Stationary Energy (gaseous fuels)
- Transport (Air)
- Transport (Land and Sea)
- Waste
- Working from home

T

Downstream emissions

Production/Service

delivery

End Use

 Emissions associated with consumption of electricity by opt-in customer



4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Climate change is one of the most significant challenges facing society today and Origin's strategy is anchored in a belief in decarbonisation and the opportunities created by the energy transition.

In August 2022, Origin released its first Climate Transition Action Plan (CTAP), which outlines the company's strategy and ambition to lead the energy transition through cleaner energy and customer solutions. Our ambition is supported by three strategic objectives and priorities to drive decarbonisation and evolve our portfolio. These are:

- 1. Unrivalled customer solutions and enable customers to decarbonise:
 - We are providing customers with a growing portfolio of simple, affordable lower-carbon products
 and cleaner energy solutions, including rooftop solar and batteries, renewable energy, EV
 solutions, renewable power PPAs, load and demand management, as well as our Origin Go Zero
 Electricity, Origin Go Zero Natural Gas, and Origin Go Zero LPG products, which are certified
 carbon neutral by Climate Active.
 - We aim to grow a portfolio of carbon credits that will be offered to customers to support them to achieve their decarbonisation commitments.
 - Grow scale at Octopus, which is number two in the UK market by customer accounts, supplying
 electricity sourced from 100 per cent renewable energy including wind, hydroelectric and solar
 power.
- 2. Accelerate renewable and cleaner energy and grow our portfolio of renewables and cleaner energy:
 - We aim to grow renewables and storage capacity to within our generation portfolio to 4 GW by 2030.
 - We aim to grow our Virtual Power Plant which we expect to play an increasingly important role in helping us optimise the supply and demand balance in the electricity market – to 2 GW under management by FY2026.
 - Investments in Future Fuels we are exploring both domestic and export market opportunities for hydrogen and ammonia through a number of projects, while recognising the early-stage nature of the hydrogen market in Australia and the technology advancements required.
- 3. Deliver reliable energy through the transition and reduce emissions from our existing operations:

Accelerate Eraring closure - In February 2022, we announced plans to accelerate our exit from coal-fired power generation at the Eraring Power Station to potentially as early as August 2025. Bringing forward our exit from coal-fired power generation is the most significant step we expect to take towards achieving our emissions targets.

Reduce emissions from our gas operations. As upstream operator for Australia Pacific LNG, we aim to reduce fugitive emissions by replacing equipment and devices with more efficient and advanced



technologies, retrofitting facilities to reduce methane venting, and using targeted planning and the implementation of artificial intelligence tools.

Exiting upstream exploration portfolio. In November 2022, we completed the sale of our interest in the Beetaloo Basin exploration project, and we have also entered into agreements to exit our interests in the Canning and Cooper-Eromanga Basins.

The CTAP also includes targets to accelerate emissions reduction across Origin and create value for shareholders, towards a long-term ambition to be net zero emissions by 2050. Origin's climate ambitions and targets outlined in the CTAP include:

- ambition to achieve net zero Scope 1, 2 and 3 emissions across the value chain by 2050
- medium-term target to reduce Scope 1, 2 and 3 equity emissions intensity by 40 per cent by 2030, from a FY2019 baseline
- medium-term target to reduce absolute Scope 1, 2 and 3 equity emissions by 20 million tonnes by 2030, from a FY2019 baseline¹

We believe our medium-term emissions intensity target and our long-term net zero emissions ambition are consistent with the goals of the Paris Agreement to limit the increase in the average global temperature to 1.5°C above pre-industrial levels.²

Our CTAP also outlined an updated short-term target to reduce cumulative Scope 1 equity emissions by eight million tonnes CO2-e between FY2021 and FY2023, from a FY2017 baseline. We achieved this target with a cumulative reduction of 9.1 million tonnes CO2-e between FY2021 and FY2023.

Our latest Sustainability Report outlines our progress against our plan and targets.

Emissions reduction actions

For CY2022, our Retail business undertook the following actions.

Energy efficiency

Origin is focused on educating and encouraging customers to become more energy efficient. During CY2022:

Origin ran television commercials to increase awareness of cleaner energy solutions, electric vehicles
and hydrogen Certainty 30" TVC: ORI537230A Q2 Campaign 30sec TVC.mp4 Origin Solar
TVC: ORI509930A Origin Solar 30secTVC Final.mp4and Hydrogen 30" TVC: Hydrogen
30sec TVC Syd Brand Campaign.mp4.



¹ Excluded from the medium-term targets are the potential future emissions from any development of new gas fields like the Beetaloo Basin. This is because there has been no decision, nor is Origin close to a decision, to produce those gas resources. However, any development would only occur where it was consistent with Origin's net zero emissions by 2050 ambition.

² Pursuant to the methodology set out in the CTAP

- Origin ran programs such as Spike and Loop which help customers with energy management.
 - Spike is a behavioural demand response program that rewards customers for reducing their energy use during peak periods. By end of CY2022 the Spike program had 85,000 customers enrolled.
 - Our Virtual Power Plant (VPP), or Origin Loop, orchestrates distributed energy assets across many separate locations, providing Origin with an important tool to manage the supply and demand balance in the electricity market. Loop uses artificial intelligence to optimise these assets and shifts demand from periods of high demand and high emissions intensity to times when renewable generation is high and electricity prices are low, reducing the cost of energy and carbon intensity.

Origin also launched its Origin Zero business in 2022. Origin Zero serves large customers and, as part of helping customers with their transition to cleaner energy solutions has offerings including access to renewable electricity through purchase of LGCs, solutions that are connected to our VPP, end-to-end electric vehicle fleet management solutions, carbon assessments and combining orchestration and data analytics to provide an end-to-end energy efficiency solution. The Origin Zero team has conducted carbon assessments for some of its customers and provided options for reducing their carbon footprint and energy use, including through solar, power factor correction units and behind-the-meter monitoring solutions.

Solar

Origin installed 70.3MW of new solar capacity in CY2022.

Electric Vehicles

Transportation is the third highest emitting sector in Australia. Therefore, the electrification of transport is a major opportunity to reduce Australia's emissions. The electrification of mobility (E-mobility) is a major focus area in Origin's strategy to help customers decarbonise. We offer a range of solutions under the 360 EV umbrella brand, including charging, fleet management and car sharing.

E-Billing

Origin's generally available plans are available online and customers can opt into e-billing and correspondence. Our phone sales customers are automatically assigned to e-billing and correspondence where an email address is provided.

For CY2022, 2.9 million customer accounts were flagged as e-billing customer accounts. This is an increase of 0.4 million customer accounts on e-billing from CY2021, which resulted in less paper use, printing and stationery and reduced reliance on postal services within the supply chain. Other potential co-benefits of e-billing include lower emissions in the supply chain associated with travel for mail distribution and less paper waste ending up in landfill.



5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year							
		Total tCO ₂ -e	Emissions intensity of the functional unit				
Base year/Year 1:	2021	4.40	0.8697 tCO2-e per MWh				
Year 2:	2022	48,600.81	0.7962 tCO2-e per MWh				

Significant changes in emissions

Emission source name	Previous year emissions (t CO ₂ -e)	Current year emissions (t CO ₂ -e)	Detailed reason for change
Electricity - VIC Scope 2 combustion of fuels for electricity generation	1.90	12,454.24	Sales covering full year in calendar 2022 and higher uptake of the product.
Electricity - NSW Scope 2 combustion of fuels for electricity generation	1.31	18,721.68	Sales covering full year in calendar 2022 and higher uptake of the product.
Electricity - QLD Scope 2 combustion of fuels for electricity generation	0.56	9,228.36	Sales covering full year in calendar 2022 and higher uptake of the product.

Use of Climate Active carbon neutral products and services

N/A



Emissions summary

Emission source	Sum of Scope 1 (t CO2-e)	Sum of Scope 2 (t CO2-e)	Sum of Scope 3 (t CO2-e)	Sum of Total Emissions (t CO2-e)
Construction Materials and Services	0.00	0.00	0.00	0.00
Electricity	0.00	0.12	0.02	0.13
ICT services and equipment	0.00	0.00	1.37	1.37
Office equipment & supplies	0.00	0.00	0.53	0.53
Postage, courier and freight	0.00	0.00	1.87	1.87
Professional Services	0.00	0.00	2.94	2.94
Stationary Energy (gaseous fuels)	0.03	0.00	0.01	0.03
Transport (Air)	0.00	0.00	0.90	0.90
Transport (Land and Sea)	0.12	0.00	1.18	1.30
Waste	0.00	0.00	1.24	1.24
Working from home	0.00	0.00	1.18	1.18
Electricity sold (Scope 2: emissions from combustion of fuels to generate electricity) Electricity sold (Scope 3: emissions from extraction, processing, and transportation of fuels to generate	0.00	43526.07	0.00	43526.07
electricity and transmission and distribution of electricity)	0.00	0.00	5063.27	5063.27
Total	0.15	43526.19	5074.48	48600.81

No uplift factors were included in the emissions total.

Emissions intensity per functional unit	0.7962 tCO2-e per MWh
Number of functional units to be offset	61,043.27 MWh
Total emissions to be offset	48,600.81 tCO2-e



6.CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is 48,601 tCO₂-e. The total number of eligible offsets used in this report is 59,455. Of the total eligible offsets used, 44,407 were previously banked and 4,194 were newly purchased and retired. 10,854 eligible offsets are remaining and have been banked for future use.

Co-benefits

Origin has purchased offsets from projects in Australia which have been used in this report. These are offsets generated from the Emission Reduction Fund (ERF) from Paroo River South and the Nulla Carbon regeneration projects in Queensland and Carbon Conscious Carbon Capture Project 2. In 2009, Origin engaged with Carbon Conscious (now Alterra Limited) to become the foundation off taker of carbon credits from large scale native Mallee Eucalyptus tree planting reforestation project located in the Wheatbelt in Western Australia. Carbon Conscious Carbon Capture Project 1 and Carbon Conscious Carbon Capture Project 2 are reforestation projects established by planting ~21,000,0000 Mallee Eucalypt seedlings over ~16,500Ha on 30 properties in the central and northern Western Australian wheatbelt between 2009 and 2012.

Origin has also purchased offsets which have been used in this report from international projects accredited under the Verified Carbon Standard (VCS) and Climate, Community and Biodiversity Standard (CCB). These include, The Kariba Redd+ project, The Rimba Raya Biodiversity Reserve project and The Southern Cardamom REDD+ Project.



Eligible offsets retirement summary

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity (tCO ₂ -e)	Eligible quantity used for previous reporting periods	Eligible quantity banked for future reporting periods	Eligible quantity used for this reporting period	Percentage of total (%)
Paroo River South Environmental Project	ACCUs	ANREU	2 June 2021	Serial numbers: 3,792,533,208 - 3,792,533,272	2019-20	0	65	1	0	64	0.13%
Paroo River South Environmental Project	ACCUs	ANREU	2 June 2021	Serial numbers: 3,779,577,408 - 3,779,577,573	2018-19	0	166	0	0	166	0.34%
Nulla Carbon	ACCUs	ANREU	2 June 2021	Serial numbers: 3,792,020,723 - 3,792,026,018	2019-20	0	5,296	0	0	5,296	10.90%
Rimba Raya Biodiversity Reserve Project	VCU's	VERRA	11 June 2021	Serial numbers: 9900-157724745- 157746808-VCS-VCU-263-VER-ID-14-674- 01012018-31122018-1 Public URL: https://registry.verra.org/myModule/rpt/myrp t_asp?r=206&h=129204	2018	0	22,064	4	10,854	11,206	23.06%
KARIBA REDD+ PROJECT	VCU's	VERRA	11 June	Serial numbers: 8259-5514620-5514661- VCS-VCU-352-VER-ZW-14-902-01012019-	2019	0	42	0	0	42	0.09%

			2021	30062019-1 Public URL: https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=128296							
Southern Cardamom REDD+ Project	VCU's	VERRA	21 Sept 2021	Serial numbers: 9778-134302718- 134325762-VCS-VCU-263-VER-KH-14- 1748-01012016-31122016-1 Public URL: https://registry.verra.org/myModule/rpt/myrp t_asp?r=206&h=142547	2016	0	23,045	0	0	23,045	47.42%
Southern Cardamom REDD+ Project	VCU's	VERRA	21 Sept 2021	Serial numbers: 9778-134260763- 134265350-VCS-VCU-263-VER-KH-14- 1748-01012016-31122016-1 Public URL: https://registry.verra.org/myModule/rpt/myrp t_asp?r=206&h=133883	2016	0	4,588	0	0	4,588	9.44%
Carbon Conscious Carbon Capture Project 2	ACCUs	ANREU	20 Apr 2023	Serial numbers: 3764397699- 3764401892	2017-18	0	4,194	0	0	4,194	8.63%
Total offsets retired this report and used in this rep										48,601	
Total offsets retired this report and banked for future reports											

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	9,720	20%
Verified Carbon Units (VCUs)	38,881	80%



7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

The following RECs have been surrendered to reduce electricity emissions under the market-based reporting method.

1. Large-scale Generation certificates (LGCs)*

N/A

Project supported by LGC purchase	Project location	Eligible unit type	Registry	Surrender date	Accreditation code	Certificate serial number	Generation year	Fuel source	Quantity (MWh)

Total LGCs surrendered this report and used in this report



^{*} LGCs in this table only include those surrendered voluntarily (including through PPA arrangements), and does not include those surrendered in relation to the LRET, GreenPower, and jurisdictional renewables.

APPENDIX A: ADDITIONAL INFORMATION

N/A



APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

Location-based method

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

Market-based method

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.

For this certification, electricity emissions have been set by using the market-based approach.



Behind the meter consumption of electricity generated	Market Based Approach Summary			
Total non-grid electricity 0 0 0% LGC Purchased and retired (kWh) (including PPAs) 0 0 0% GreenPower 360 0 52% Climate Active precinct/building (voluntary renewables) 0 0 0% Precinct/Building (LRET) 77 0 11% Precinct/Building jurisdictional renewables (LGCs surrendered) 0 0 0% Electricity products (voluntary renewables) 0 0 0% Electricity products (LRET) 0 0 0% Electricity products jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LRET) (applied to ACT grid electricity) 0 0 0% Large Scale Renewable Energy Target (applied to grid electricity only) 114 0 17% Residual Electricity 137 130 0% Total grid electricity (grid + non grid) 551 0 80% Total electricity (grid + non grid) 688 130<	Market Based Approach		ons (kg	Renewable Percentage of total
Total non-grid electricity 0 0 0% LGC Purchased and retired (kWh) (including PPAs) 0 0 0% GreenPower 360 0 52% Climate Active precinct/building (voluntary renewables) 0 0 0% Precinct/Building (LRET) 77 0 11% Precinct/Building jurisdictional renewables (LGCs surrendered) 0 0 0% Electricity products (voluntary renewables) 0 0 0% Electricity products (LRET) 0 0 0% Electricity products jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LRET) (applied to ACT grid electricity) 0 0 0% Large Scale Renewable Energy Target (applied to grid electricity only) 114 0 17% Residual Electricity 137 130 0% Total grid electricity (grid + non grid) 551 0 80% Total electricity (grid + non grid) 688 130<				
LGC Purchased and retired (kWh) (including PPAs)	Behind the meter consumption of electricity generated	0	0	0%
GreenPower 360 0 52% Climate Active precinct/building (voluntary renewables) 0 0 0% Precinct/Building (LRET) 77 0 11% Precinct/Building jurisdictional renewables (LGCs surrendered) 0 0 0% Electricity products (voluntary renewables) 0 0 0% Electricity products (LRET) 0 0 0% Electricity products jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LRET) (applied to ACT grid electricity) 0 0 0% Large Scale Renewable Energy Target (applied to grid electricity only) 114 0 17% Residual Electricity 137 130 0% Total grid electricity (grid + non grid) 551 0 80% Total electricity (grid + non grid) 688 130 80%	Total non-grid electricity	0	0	0%
Climate Active precinct/building (voluntary renewables) Precinct/Building (LRET) Precinct/Building jurisdictional renewables (LGCs surrendered) Electricity products (voluntary renewables) Electricity products (voluntary renewables) Electricity products (LRET) Electricity products (LRET) Electricity products jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LRET) (applied to ACT grid electricity) Large Scale Renewable Energy Target (applied to grid electricity only) Residual Electricity Total renewable electricity (grid + non grid) Total grid electricity 688 130 80% Total electricity (grid + non grid)	LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
Precinct/Building (LRET) 77 0 11% Precinct/Building jurisdictional renewables (LGCs surrendered) 0 0 0% Electricity products (voluntary renewables) 0 0 0% Electricity products (LRET) 0 0 0% Electricity products jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LGCs surrendered) 0 0 0% Jurisdictional renewables (LRET) (applied to ACT grid electricity) 0 0 0% Large Scale Renewable Energy Target (applied to grid electricity only) 114 0 17% Residual Electricity 137 130 0% Total renewable electricity (grid + non grid) 551 0 80% Total grid electricity 688 130 80% Total electricity (grid + non grid) 688 130 80%	GreenPower	360	0	52%
Precinct/Building jurisdictional renewables (LGCs surrendered) 0 0 0 0% Electricity products (voluntary renewables) 0 0 0 0% Electricity products (LRET) 0 0 0 0% Electricity products jurisdictional renewables (LGCs surrendered) 0 0 0 0% Jurisdictional renewables (LGCs surrendered) 0 0 0 0% Jurisdictional renewables (LRET) (applied to ACT grid electricity) 0 0 0 0% Large Scale Renewable Energy Target (applied to grid electricity only) 114 0 17% Residual Electricity 137 130 0% Total renewable electricity (grid + non grid) 551 0 80% Total grid electricity (grid + non grid) 688 130 80%	Climate Active precinct/building (voluntary renewables)	0	0	0%
Electricity products (voluntary renewables) Electricity products (LRET) Electricity products (LRET) Electricity products jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LRET) (applied to ACT grid electricity) Large Scale Renewable Energy Target (applied to grid electricity only) Residual Electricity Total renewable electricity (grid + non grid) Total grid electricity 137 130 80% Total electricity (grid + non grid) Total electricity (grid + non grid) 688 130 80%	Precinct/Building (LRET)	77	0	11%
Electricity products (LRET)	Precinct/Building jurisdictional renewables (LGCs surrendered)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LGCs surrendered) Jurisdictional renewables (LRET) (applied to ACT grid electricity) Large Scale Renewable Energy Target (applied to grid electricity only) Residual Electricity 137 Total renewable electricity (grid + non grid) Total electricity (grid + non grid) 688 130 80%	Electricity products (voluntary renewables)	0	0	0%
Surrendered 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Electricity products (LRET)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)		0	0	0%
electricity	Jurisdictional renewables (LGCs surrendered)	0	0	0%
electricity only)	, , , , , ,	0	0	0%
Total renewable electricity (grid + non grid) 551 0 80% Total grid electricity 688 130 80% Total electricity (grid + non grid) 688 130 80%		114	0	17%
Total renewable electricity (grid + non grid) 551 0 80% Total grid electricity 688 130 80% Total electricity (grid + non grid) 688 130 80%	Residual Electricity	137	130	0%
Total electricity (grid + non grid) 688 130 80%		551	0	80%
Total electricity (grid + non grid) 688	Total grid electricity	688	130	
	Total electricity (grid + non grid)	688		
control 100%		100%		
Residual electricity consumption under operational control 137 130	Residual electricity consumption under operational control	137	130	
Scope 2 121 115	Scope 2	121	115	
Scope 3 (includes T&D emissions from consumption under operational control) 16 15	Scope 3 (includes T&D emissions from consumption under	16		
Residual electricity consumption not under operational control 0 0		0	0	
Scope 3 0 0 .	Scope 3	0	0	

Total renewables (grid and non-grid)	80.14%
Mandatory	27.72%
Voluntary	52.42%
Behind the meter	
Residual scope 2 emissions (t CO2-e)	0.00% 0.12
Residual scope 3 emissions (t CO2-e)	0.02
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	0.12
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	0.02
Total emissions liability (t CO2-e)	0.13
Figures may not sum due to rounding. Renewable percentage can be above 100%	



Location Based Approach	Activity Data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kg CO2- e)	Scope 3 Emissions (kg CO2- e)	(kWh)	Scope 3 Emissions (kg CO2-e)
ACT	0	0	0	0	0	0
NSW	77	77	56	5	0	0
SA	134	134	34	11	0	0
VIC	250	250	213	18	0	0
QLD	226	226	165	34	0	0
NT	0	0	0	0	0	0
WA	0	0	0	0	0	0
TAS	0	0	0	0	0	0
Grid electricity (scope 2 and 3)	688	688	468	67	0	0
ACT	0	0	0	0		
NSW	0	0	0	0		
SA	0	0	0	0		
VIC	0	0	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
Non-grid electricity (behind the meter)	0	0	0	0		

Residual scope 2 emissions (t CO2-e)	0.47
Residual scope 3 emissions (t CO2-e)	0.07
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	0.41
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	0.06
Total emissions liability (t CO2-e)	0.47

Operations in Climate Active buildings and precincts

ı	Operations in Climate Active buildings and precincts	Electricity consumed in	Emissions
ı		Climate Active certified	(kg CO₂-e)
ı		building/precinct (kWh)	· • · ·
ı	100 Barangaroo Avenue NSW	77	0

Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market-based method is outlined as such in the market based summary table.



APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to one of the following reasons:

- 1. <u>Immaterial</u> <1% for individual items and no more than 5% collectively.
- 2. Cost effective Quantification is not cost effective relative to the size of the emission but uplift applied.
- <u>Data unavailable</u> Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
- 4. Maintenance Initial emissions non-quantified but repairs and replacements quantified.

Relevant non-quantified emission sources	Justification reason
N/A	

Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

- 1. A data gap exists because primary or secondary data cannot be collected (no actual data).
- 2. Extrapolated and proxy data cannot be determined to fill the data gap (no projected data).
- 3. An estimation determines the emissions from the process to be immaterial).

	No actual data	No projected data	Immaterial
Water use at corporate sites related to Electricity retailing	Water invoices are generally included in lease arrangement.	Water usage for one building cannot be applied to other sites due to sites not being comparable.	Based on existing historical data and assumptions for our sites, we confirmed that the emissions attributable to this product is immaterial < 1%.

Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

The data management plan below outlines how more rigorous quantification can be achieved for material (greater than 1%) non-quantified emission sources.



APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions sources summary

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

- <u>Size</u> The emissions from a particular source are likely to be large relative to other attributable emissions.
- 2. Influence The responsible entity could influence emissions reduction from a particular source.
- <u>Risk</u> The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.
- 4. Stakeholders The emissions from a particular source are deemed relevant by key stakeholders.

<u>Outsourcing</u> The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services

Emission sources tested for relevance	Size	Influence	Risk	Stakeholder	Outsourcing	Justification
Corporate activities not related to Electricity retailing	Υ	N	N	N	N	Size: The emissions source is likely to be large compared to other attributable emissions,however it does not become part of this product.





