



# **PUBLIC DISCLOSURE STATEMENT**


**ORIGIN ENERGY LIMITED  
ORIGIN GO ZERO NATURAL GAS  
PRODUCT CERTIFICATION  
CY2022**

Australian Government  
**Climate Active**  
**Public Disclosure Statement**



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	Origin Energy Limited
REPORTING PERIOD	1 January 2022 – 31 December 2022
DECLARATION	<p><i>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.</i></p> <p>Duncan Permezel General Manager, Consumer &amp; Property - Retail Date 16.10.2023</p> 



**Australian Government**  
**Department of Climate Change, Energy,  
the Environment and Water**

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Version March 2023.

# 1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	152,191 tCO <sub>2</sub> -e
THE OFFSETS USED	20% ACCUs, 80% VCUs
RENEWABLE ELECTRICITY	80.14%
CARBON ACCOUNT	Prepared by: Origin Energy Ndevr Environmental prepared the initial certification
TECHNICAL ASSESSMENT	03 December 2020 Timothy Harding Ndevr Environmental Next technical assessment due: 03 December 2023
THIRD PARTY VALIDATION	Type 3 27 November 2020 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 natural gas product under Climate Active. This product is now marketed and sold as "Origin Go Zero Natural Gas", previously referred to in the CY2021 PDS as "Green Gas".

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 Natural Gas". Total emissions for "Origin Go Zero Natural Gas" sold are calculated to be 152,191 t CO<sub>2</sub>-e in CY2022. This is higher than CY2021, due to increased product uptake.

### Product description

The "Origin Go Zero Natural Gas" product allows customers to offset greenhouse gas emissions associated with the sourcing, transmission, distribution, retailing and consumption of natural gas.

"Origin Go Zero Natural Gas" is offered as an opt-in product to Origin's natural gas customers across all current and future market segments, including residential, small business, commercial and industrial customers.

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 sourcing, transmission, distribution, retailing and consumption of natural gas for customers who opt-in to the product.

The functional unit is gigajoules (GJ) of natural gas usage, with emissions expressed as tonnes of CO<sub>2</sub>-e (t CO<sub>2</sub>-e) per GJ.

## 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

Natural gas consumed by opt-in customers by state during the reporting period, end use combustion.

Natural gas sold – extraction, processing, and distribution

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 natural gas retailing.

### Optionally included

N/A

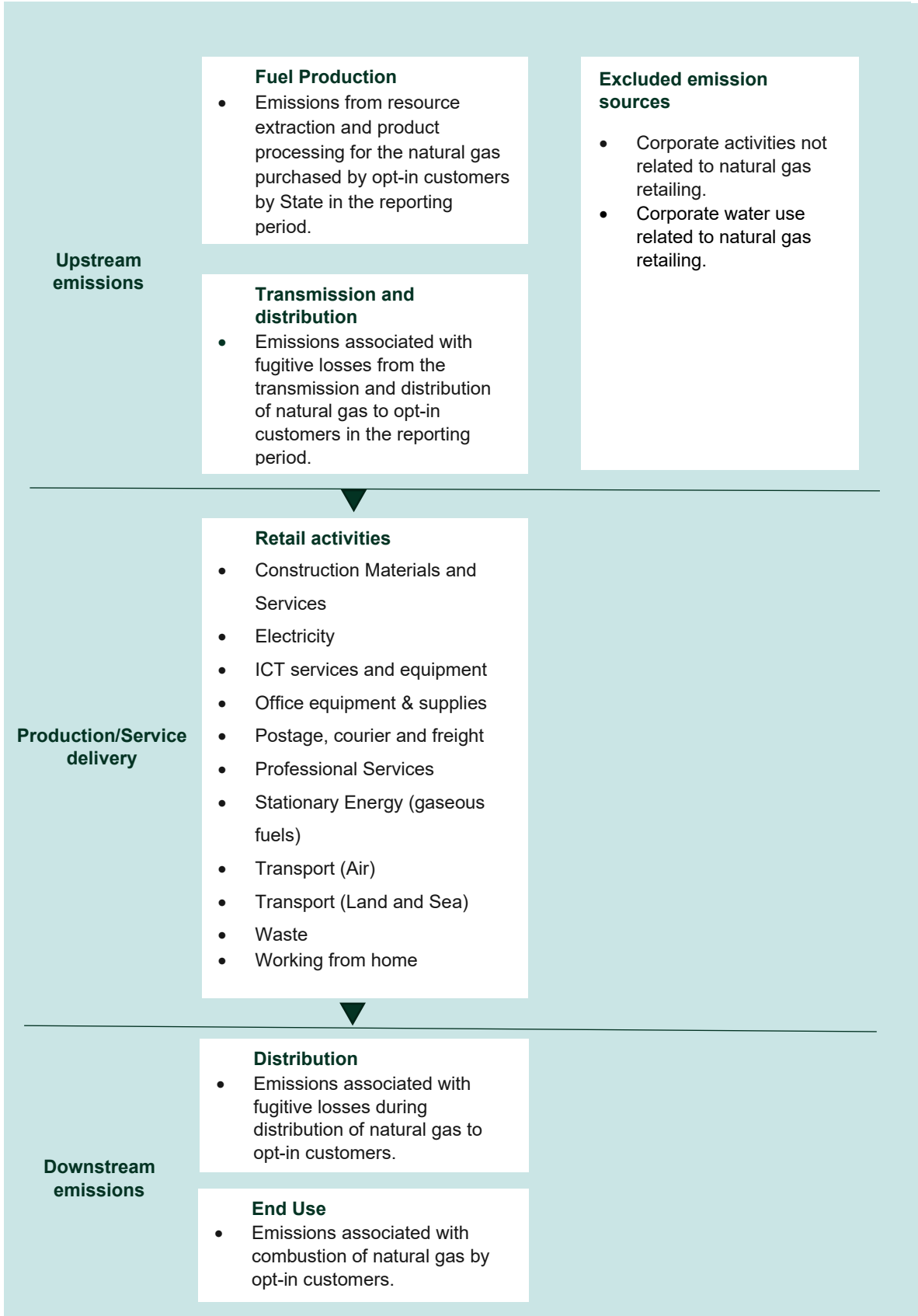
## Outside emission boundary

### Non-attributable

Corporate activities not related to natural gas retailing.

# Product process diagram

Cradle-to-grave



## 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 ambition to lead the energy transition through cleaner energy and customer solutions. Our ambition is supported by three strategic objectives to drive decarbonisation and evolve our portfolio, which are:

1. Unrivalled customer solutions to help 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 by growing 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 while reducing 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 baseline<sup>1</sup>

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<sup>2</sup>

Our CTAP also outlined an updated short-term target to reduce cumulative Scope 1 equity emissions by eight million tonnes CO<sub>2</sub>-e between FY2021 and FY2023, from a FY2017 baseline. We achieved this target with a cumulative reduction of 9.1 million tonnes CO<sub>2</sub>-e between FY2021 and FY2023.

Our latest [Sustainability Report](#) outlines our progress on our CTAP.

<sup>1</sup> The CTAP excluded from the medium-term targets the potential future emissions from any development of new gas fields like the Beetaloo Basin. As noted above, Origin completed its sale of its interest in the Beetaloo Basin in November 2022 and has executed agreements to exit interests in the Canning and Cooper-Eromanga Basins.

<sup>2</sup> Pursuant to the methodology set out in the CTAP

## 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.mp4](#) and **Hydrogen 30” TVC:** [Hydrogen 30sec TVC\\_Syd Brand Campaign.mp4](#).
- 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 <sub>2</sub> -e	Emissions intensity of the functional unit
Base year/Year 1:	2021	107,999.88	0.0583 tCO <sub>2</sub> -e per GJ
Year 2:	2022	152,190.58	0.0587 tCO <sub>2</sub> -e per GJ

### Significant changes in emissions

Emission source name	Previous year emissions (t CO <sub>2</sub> -e)	Current year emissions (t CO <sub>2</sub> -e)	Detailed reason for change
Natural Gas - VIC Scope 1 combustion of fuels for electricity generation	62,920.55	81,698.37	Higher uptake of the Origin Go Zero Natural Gas product in VIC.
Natural Gas - NSW/ACT Scope 1 combustion of fuels for electricity generation	20,432.58	36,395.75	Higher uptake of the Origin Go Zero Natural Gas product in NSW/ACT.

### Use of Climate Active carbon neutral products and services

N/A

## Product emissions summary

Emission category	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	0.03	0.03
Electricity	0.00	1.36	0.18	1.54
ICT services and equipment	0.00	0.00	16.10	16.10
Office equipment & supplies	0.00	0.00	6.22	6.22
Postage, courier and freight	0.00	0.00	22.05	22.05
Professional Services	0.00	0.00	34.61	34.61
Stationary Energy (gaseous fuels)	0.33	0.00	0.06	0.39
Transport (Air)	0.00	0.00	10.56	10.56
Transport (Land and Sea)	1.44	0.00	13.88	15.32
Waste	0.00	0.00	14.59	14.59
Working from home	0.00	0.00	13.88	13.88
Natural Gas Sold (Emissions associated with combustion of Natural Gas)	133526.71	0.00	0.00	133,526.71
Natural Gas sold (Scope 3: Emissions associated with extraction, processing, transportation (EPT) of fuels, transmission and distribution of Natural Gas)	0.00	0.00	18528.58	18,528.58
<b>Total</b>	<b>133528.48</b>	<b>1.36</b>	<b>18660.75</b>	<b>152,190.58</b>

No uplift factors were included in the emissions total.

<b>Emissions intensity per functional unit</b>	<b>0.0587 tCO2-e per GJ</b>
<b>Number of functional units to be offset</b>	2,591,242 GJ
<b>Total emissions to be offset</b>	152,191 tCO2-e

## 6. CARBON OFFSETS

### Offsets retirement approach

This certification has taken an in arrears offsetting approach. The total emission to offset is 152,191 tCO<sub>2</sub>-e. The total number of eligible offsets used in this report is 152,191. Of the total eligible offsets used, 0 were previously banked and 152,191 were newly purchased and retired. 25,000 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 projects are the **Arnhem Land Fire Abatement (ALFA) Projects** located in the Northern Territory 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 ~21,000,000 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 the Climate, Community and Biodiversity Standard (CCB). These include, **Sumatra Merang Peatland project (SMPP)**, The **Rimba Raya Biodiversity Reserve project** and **Katingan Peatland Restoration and Conservation project**

## Eligible offsets retirement summary

Offsets cancelled for Climate Active Carbon Neutral Certification											
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity (tCO <sub>2</sub> -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 (%)
<b>West Arnhem Land Fire Abatement (WALFA) Project</b>	ACCU	ANREU	12 Oct 2022	Serial numbers: 8,344,302,116 - 8,344,312,115	2021-22	0	10,000	0	5,000	5,000	3.29%
<b>South East Arnhem Land Fire Abatement Project (SEALFA) Project</b>	ACCU	ANREU	12 Oct 2022	Serial numbers: 8,346,339,748 - 8,346,349,747	2022-23	0	10,000	0	5,000	5,000	3.29%
<b>North East Arnhem Land Fire Abatement (NEALFA)</b>	ACCU	ANREU	12 Oct 2022	Serial numbers: 8,344,152,002 - 8,344,162,001	2021-22	0	10,000	0	5,000	5,000	3.29%
<b>Central Arnhem Land Fire Abatement (CALFA) Project</b>	ACCU	ANREU	12 Oct 2022	Serial numbers: 8,343,698,572 - 8,343,718,571	2022-22	0	20,000	0	10,000	10,000	6.57%
<b>Carbon Conscious Carbon Capture Project 2</b>	ACCU	ANREU	20 Apr 2023	Serial numbers: 3,764,392,261 - 3,764,397,698	2017-18	0	5,438	0	0	5,438	3.57%
<b>Sumatra Merang</b>	VCU	VERRA	20 Apr 2023	Serial numbers: 12385-407622904-	2020	0	15,000	0	0	15,000	9.86%

<b>Peatland Project (SMPP)</b>				407637903-VCS-VCU-352-VER-ID-14-1899-01012020-31122020-1 Public URL: <a href="https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=160346">https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=160346</a>							
<b>Sumatra Merang Peatland Project (SMPP)</b>	VCUs	VERRA	20 Apr 2023	Serial numbers: 12190-394338990-394347628-VCS-VCU-352-VER-ID-14-1899-01012020-31122020-1 Public URL: <a href="https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=160110">https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=160110</a>	2020	0	8,639	0	0	8,639	5.68%
<b>Sumatra Merang Peatland Project (SMPP)</b>	VCUs	VERRA	20 Apr 2023	Serial numbers: 12195-395017654-395019326-VCS-VCU-352-VER-ID-14-1899-01012020-31122020-1 Public URL: <a href="https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=157733">https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=157733</a>	2020	0	1,673	0	0	1,673	1.10%
<b>Katingan Peatland Restoration and Conservation Project</b>	VCUs	VERRA	20 Apr 2023	Serial numbers: 10364-207003251-207053250-VCS-VCU-263-VER-ID-14-1477-01012019-31122019-1 Public URL: <a href="https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=167853">https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=167853</a>	2019	0	50,000	0	0	50,000	32.85%
<b>Rimba Raya Biodiversity Reserve Project</b>	VCUs	VERRA	20 Apr 2023	Serial numbers: 9840-145689541-145735981-VCS-VCU-263-VER-ID-14-674-01012016-31122016-1 Public URL: <a href="https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=172139">https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&amp;h=172139</a>	2016	0	46,441	0	0	46,441	30.51%

**Total offsets retired this report and used in this report**

152,191

**Total offsets retired this report and banked for future reports**

25,000

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCU)	30,438	20%
Verified Carbon Units (VCUs)	121,753	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.

<b>1. Large-scale Generation certificates (LGCs)*</b>	N/A
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\* 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**.

## Market Based Approach Summary

Market Based Approach	Activity Data (kWh)	Emissions (kg CO <sub>2</sub> -e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	0	0	0%
<b>Total non-grid electricity</b>	<b>0</b>	<b>0</b>	<b>0%</b>
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	4,250	0	52%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	904	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)	1,343	0	17%
Residual Electricity	1,610	1,538	0%
<b>Total renewable electricity (grid + non grid)</b>	<b>6,498</b>	<b>0</b>	<b>80%</b>
<b>Total grid electricity</b>	<b>8,108</b>	<b>1,538</b>	<b>80%</b>
<b>Total electricity (grid + non grid)</b>	<b>8,108</b>	<b>1,538</b>	<b>80%</b>
Percentage of residual electricity consumption under operational control	100%		
<b>Residual electricity consumption under operational control</b>	<b>1,610</b>	<b>1,538</b>	
Scope 2	1,422	1,358	
Scope 3 (includes T&D emissions from consumption under operational control)	188	180	
<b>Residual electricity consumption not under operational control</b>	<b>0</b>	<b>0</b>	
Scope 3	0	0	

<b>Total renewables (grid and non-grid)</b>	<b>80.14%</b>
<b>Mandatory</b>	<b>27.72%</b>
<b>Voluntary</b>	<b>52.42%</b>
<b>Behind the meter</b>	<b>0.00%</b>
<b>Residual scope 2 emissions (t CO<sub>2</sub>-e)</b>	<b>1.36</b>
<b>Residual scope 3 emissions (t CO<sub>2</sub>-e)</b>	<b>0.18</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>1.36</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>0.18</b>
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>1.54</b>

Figures may not sum due to rounding. Renewable percentage can be above 100%

## Location Based Approach Summary

Location Based Approach	Activity Data (kWh) total	Under operational control			Not under operational control	
		(kWh)	Scope 2 Emissions (kg CO <sub>2</sub> -e)	Scope 3 Emissions (kg CO <sub>2</sub> -e)	(kWh)	Scope 3 Emissions (kg CO <sub>2</sub> -e)
Percentage of grid electricity consumption under operational control	100%					
ACT	0	0	0	0	0	0
NSW	904	904	660	54	0	0
SA	1,581	1,581	395	126	0	0
VIC	2,953	2,953	2,510	207	0	0
QLD	2,670	2,670	1,949	400	0	0
NT	0	0	0	0	0	0
WA	0	0	0	0	0	0
TAS	0	0	0	0	0	0
<b>Grid electricity (scope 2 and 3)</b>	<b>8,108</b>	<b>8,108</b>	<b>5,514</b>	<b>788</b>	<b>0</b>	<b>0</b>
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		
<b>Non-grid electricity (behind the meter)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Total electricity (grid + non grid)</b>	<b>8,108</b>					

<b>Residual scope 2 emissions (t CO<sub>2</sub>-e)</b>	<b>5.51</b>
<b>Residual scope 3 emissions (t CO<sub>2</sub>-e)</b>	<b>0.79</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>4.85</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>0.73</b>
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>5.59</b>

## Operations in Climate Active buildings and precincts

Operations in Climate Active buildings and precincts	Electricity consumed in Climate Active certified building/precinct (kWh)	Emissions (kg CO2-e)
Level 29-32, 100 Barangaroo Avenue, Barangaroo NSW 2000	904	0
<p><i>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.</i></p>		

## 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. **Immaterial** <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.
3. **Data unavailable** 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
<b>Water use at corporate sites related to natural gas retailing</b>	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.

## APPENDIX D: OUTSIDE EMISSION BOUNDARY

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.

1. **Size** 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.
3. **Risk** 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.
5. **Outsourcing** 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.

### Non-attributable emissions sources summary

Emission sources tested for relevance	Justification				
	Size	Influence	Risk	Stakeholders	Outsourcing
Corporate activities not related to natural gas retailing	Y	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.



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