

PUBLIC DISCLOSURE STATEMENT

ENERGYAUSTRALIA PTY LTD

ELECTRICITY AND GAS PRODUCTS

CY2021

Climate Active Public Disclosure Statement







NAME OF CERTIFIED ENTITY	EnergyAustralia Pty Ltd
REPORTING PERIOD	1 January 2021 – 31 December 2021 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. Mark Brownfield Chief Customer Officer Date 8th August 2022



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Version March 2022. To be used for FY20/21/CY2021 reporting onwards.



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	1,376,789
THE OFFSETS BOUGHT	98.7% CERs, 1.3% ACCUs
RENEWABLE ELECTRICITY	N/A
TECHNICAL ASSESSMENT	Date: 27/5/22 Name: John O'Donohue Organisation: PricewaterhouseCoopers ABN 52 780 433 757 Next technical assessment due: 2025

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2. CARBON NEUTRAL INFORMATION

Description of certification

EnergyAustralia Pty Ltd (ABN 99 086 014 968) offsets the carbon dioxide emissions associated with the electricity and gas used by residential and business customers that have opted-in to one of our offset offerings. In 2021, more than 19% of our residential customers took the opportunity to receive carbon neutral energy through our program, at no extra cost to them.

Product/Service description

We offer Go Neutral Electricity and Go Neutral Gas at no extra cost to residential customers, and offer Business Carbon Neutral Electricity as part of a bundled cost offering

For our carbon neutral electricity, the relevant functional unit is megawatt hours (MWh), with consumption of the product by customers measured as MWh per year.

For carbon neutral gas, the relevant functional unit is gigajoules (GJ), with consumption of the product by customers measured in GJ per year.

Our carbon neutral electricity and gas products are opt-in.

Our carbon neutral electricity and gas products are cradle to grave.

"Carbon Neutral certification gives confidence to our customers that our program helps them make a positive difference to the environment."



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.



Diagram of the certification boundary: ELECTRICITY PRODUCT

Inside emissions boundary

Quantified

Greenhouse gas emissions created from the extraction, production, transport, and combustion of fuels to generate electricity.

Emissions created from electricity lost in delivery from the point of generation to the point of consumption (customer meter).

Office energy consumption (electricity and gas)

Office air-conditioning

Office refrigeration

Office paper consumption

Office waste consumption

Business travel

Business Accommodation

Base building energy consumption (electricity and gas)

Base building water consumption

Base building airconditioning

Non-quantified

Staff commute to and from offices

Outside emission boundary

Non-attributable

Not applicable



Diagram of the certification boundary: GAS PRODUCT

Inside emissions boundary Quantified Non-quantified Greenhouse gas emissions Staff commute to and from from exploration and offices production of natural gas Transmission and distribution losses Office energy consumption (electricity and gas) Office air-conditioning Office refrigeration Office paper consumption Office waste consumption Business travel **Business Accommodation** Base building energy consumption (electricity and gas) Base building water consumption Base building airconditioning Combustion of gas when customers use gas

Outside emission boundary

Non-attributable

Not applicable



Product/service process diagram – ELECTRICITY PRODUCT

The following diagram is cradle to grave

Electricity Generation Sector Excluded emission Extraction of fuels sources Production of fuels Transport of fuels NA Combustion of fuels Upstream emissions **Transmission and Distribution** Delivery losses between generation and consumption **EnergyAustralia Retail** Operation Emissions as they relate to Responsible the retailing operations entity required to sell the electricity product to customers **Electricity Consumption by the** customer Downstream usage Measured at meter.



Product/service process diagram: GAS PRODUCT

The following diagram is cradle to grave

Gas purchased from bilateral contracts and wholesale **Excluded emission** markets sources Extraction of fuels NA Production of fuels Transport of fuels Upstream emissions Distribution Delivery losses between generation and consumption EnergyAustralia Retail Operation Emissions as they relate to the retailing operations Responsible required to sell the gas entity product to customers Gas Consumption by the customer Downstream emissions Emissions associated with the combustion of gas



Data management plan for non-quantified sources

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



4.EMISSIONS REDUCTIONS

Emissions reduction strategy

Carbon Neutral by 2050. At the start of 2020, EnergyAustralia set a public target to be Net Zero by 2050 across Scope 1, 2 and 3 emissions.

In March 2021, we announced a plan to close our Yallourn coal-fired power station in mid-2028. Yallourn's retirement will lower EnergyAustralia's Scope One carbon dioxide emissions by over 60% relative to 2019-20 levels, accelerating our transition to net zero emissions by 2050.

Our targets:

- To reach net zero greenhouse gas emissions by 20501,
- To reduce our direct² carbon dioxide emissions by over 60% on 2019-20 levels in 2028-2029,
- To transition out of coal assets by 2040.

Our accompanying climate credentials can be found at energyaustralia.com.au/climate-change-statement. EnergyAustralia is a purpose-led business, working to lead and accelerate the clean energy transformation for all.

Emissions reduction actions

On the wholesale side of our business, EnergyAustralia has the rights to more than 800 MW of solar and wind farm power purchase agreements, along with ownership of half the Cathedral Rocks wind farm. Through these long-term agreements, worth almost \$3 billion, we underpin around 6 per cent of the large-scale wind and solar projects in Eastern Australia's National Electricity Market.

EnergyAustralia is committed to reducing its carbon dioxide emissions by progressively phasing out coalfired power, as we work to integrate new supplies of dispatchable generation, without compromising the reliability and affordability of the energy system.

We will not build another coal-fired power plant.



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¹ Scope 1, 2 and 3 emissions

² Scope 1 emissions

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year (CY)		ELECTRICITY PRODUCT	
		Total tCO ₂ -e	Emissions intensity of the functional unit
Base year ³ :	2015	22,311,266	
Year 1:	2016–17	173,006	1.04
Year 2:	2018	546,171	0.98
Year 3:	2019	879,081	0.96
Year 4:	2020	1,171,125	0.94
Year 5:	2021	1,260,579	0.89

Emissions since base year		GAS PRODUCT				
		Total tCO ₂ -e	Emissions intensity of the functional unit			
Base year ¹ :	2017	3,356,409				
Year 1:	2020	29,121	0.05686			
Year 2:	2021	116,210	0.05845			

Use of Climate Active carbon neutral products and services

NA



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 $^{^{\}bf 3}$ Base year includes greenhouse gas emissions in relation to the full electricity/gas base.

Product/Service emissions summary

Emission source category – ELECTRICITY PRODUCT	tCO2-e
Electricity purchased from the wholesale market and sold to EA customers - ACT	11,555
Electricity purchased from the wholesale market and sold to EA customers - NSW	724,984
Electricity purchased from the wholesale market and sold to EA customers - QLD	102,068
Electricity purchased from the wholesale market and sold to EA customers - SA	12,742
Electricity purchased from the wholesale market and sold to EA customers - VIC	408,590
GHG emissions from retail operations (scope 1) 4	0
GHG emissions from retail operations (scope 2&3) ²	641

Emissions intensity per functional unit	0.89
Number of functional units to be offset	1,421,442
Total emissions to be offset	1,260,579

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⁴ Greenhouse gas emissions attributable to EnergyAustralia's retail operations in relation to Go Neutral electricity sales are estimated based on the analysis of greenhouse gas emissions for EnergyAustralia's retail operations undertaken in relation to the base year 2015. The emissions from these retail operations attributable to Go Neutral electricity sales have been estimated based on the total number of electricity and gas accounts and the amount of Go Neutral electricity sales as a proportion of total electricity sales to EnergyAustralia customers.

Emission source category – GAS PRODUCT		tCO2-e
Gas purchased from bilateral contract or wholesale market and sold to EA customers - ACT	1,294	
Gas purchased from bilateral contract or wholesale market and sold to EA customers - NSW	34,047	
Gas purchased from bilateral contract or wholesale market and sold to EA customers - QLD	-	
Gas purchased from bilateral contract or wholesale market and sold to EA customers - SA	1,874	
Gas purchased from bilateral contract or wholesale market and sold to EA customers - VIC	78,780	
GHG emissions from retail operations (scope 1) 5	0	
GHG emissions from retail operations (scope 2&3) ³	214	

Emissions intensity per functional unit	0.05845
Number of functional units to be offset	1,988,124
Total emissions to be offset	116,210

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⁵ Greenhouse gas emissions attributable to EnergyAustralia's retail operations in relation to Go Neutral gas sales are estimated based on the analysis of greenhouse gas emissions for EnergyAustralia's retail operations undertaken in relation to the base year 2015. The emissions from these retail operations attributable to Go Neutral gas sales have been estimated based on the total number of electricity and gas accounts and the amount of Go Neutral gas sales as a proportion of total gas sales to EnergyAustralia customers.

6.CARBON OFFSETS

Offsets retirement approach

In a	arrears	
1.	Total number of eligible offsets banked from last year's report	0
2.	Total emissions footprint to offset for this report	1,376,789
3.	Total eligible offsets required for this report	1,376,789
4.	Total eligible offsets purchased and retired for this report	2,214,961
5.	Total eligible offsets banked to use toward next year's report	838,172



Co-benefits

EnergyAustralia has purchased offset certificates from both Australian and International projects (the majority). Examples of projects and associated co-benefits include:

Geothermal, Indonesia: Located on the island of Java in Indonesia, the Wayang Windu Phase II project taps into Indonesia's geothermal resources to generate power for the local Jawa-Madura-Bali (JAMALI) grid, avoiding greenhouse gas emissions associated with electricity generation from fossil fuels. This project supports Indonesia's transition to renewable energy and helps improve infrastructure and the local community with jobs and education opportunities

Wind Farms, India: These are grid-connected renewable energy projects at wind farms across India aimed at helping to reduce carbon emissions.

Top End wildfire management: The Australian Wildlife Conservancy's (AWC's) carbon reduction program in parts of our ecologically diverse Top End. Carbon emissions from wildfires are reduced through strategic fire management in Piccaninny Plains in the Cape York Peninsula and Wongalara Wildlife Sanctuary in Arnhem Land. Planned burning and fire suppression break up the landscape into fuel loads of differing ages. When wildfires ignite, reduced fuel loads mean fires go out or are more easily extinguished when they reach an area already burnt during prescribed operations. This helps the landscape retain patches of old growth vegetation – vital for animals' food and shelter, such as the Gouldian Finch, Palm Cockatoo and Northern Brown Bandicoot



Eligible offsets retirement summary

						,					
Offsets cancelled for Climate Active Carbon Neutral Certif	fication										
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	Perce ntage of total (%)
Vajrakarur wind power project in Andhra Pradesh (CDM 9650)	CER	ANREU	24/12/2021	<u>251.145.101 -</u> <u>251.148.493</u>	13-14		3,393		-	3,393	0.25
Wind Energy Project in Saundatti, Karnataka (CDM 6794)	CER	ANREU	24/12/2021	<u>227.393.638 -</u> <u>227.432.854</u>	13-16		39,217		-	39,217	2.85
Wind Energy Project in Saundatti, Karnataka (CDM 6794)	CER	ANREU	24/12/2021	227.493.638 - 227.593.637	13-16		100,000		100,000		0.00
Wind Energy Project in Saundatti, Karnataka (CDM 6794)	CER	ANREU	24/12/2021	<u>227.593.638 -</u> <u>227.743.637</u>	13-16		150,000		150,000		0.00
Bundled Wind Power Project in Tamil Nadu, India, co-ordinated by Tamil Nadu Spinning Mills Association (TASMA-II) (CDM 4760)	CER	ANREU	24/12/2021	<u>221.330.676 -</u> <u>221.367.675</u>	13-15		37,000		-	37,000	2.69
74 MW wind energy project in Tamilnadu, India (CDM 7647)	CER	ANREU	24/12/2021	237.394.146 - 237.401.498	13-15		7,353		-	7,353	0.53
Wind Power Project at Jath, Maharashtra (CDM 9154)	CER	CDM	14/09/2021	<u>213.939.194 -</u> <u>214.203.150</u>	14-15		263,957		-	263,957	19.17
CFL lighting scheme – "Bachat Lamp Yojana" (CDM 3223)	CER	ANREU	24/12/2021	238.987.272 - 239.030.199	15		42,928		42,928		0.00



CFL lighting scheme – "Bachat Lamp Yojana" (CDM 3223)	CER	ANREU	24/12/2021	<u>237.003.088 -</u> <u>237.117.378</u>	14	114,291	-	114,291	8.30
CFL lighting scheme – "Bachat Lamp Yojana" (CDM 3223)	CER	ANREU	24/12/2021	<u>210.765.217 -</u> <u>210.772.308</u>	14	7,092	-	7,092	0.52
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	24/12/2021	<u>18.517.105 -</u> <u>18.667.104</u>	14	150,000	93,283	56,717	4.12
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	14/10/2021	<u>10.104.396 -</u> <u>10.319.395</u>	13	215,000	-	215,000	15.62
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	24/12/2021	<u>18.351.017 -</u> <u>18.436.016</u>	14	85,000	-	85,000	6.17
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	12/10/2021	<u>10.485.979 -</u> <u>10.721.078</u>	13	235,100	-	235,100	17.08
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	12/10/2021	<u>18.436.017 -</u> <u>18.450.916</u>	14	14,900	-	14,900	1.08
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	19/10/2021	<u>10.735.979 -</u> <u>10.743.757</u>	13	7,779	-	7,779	0.57
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	19/10/2021	<u>18.450.917 -</u> <u>18.517.104</u>	14	66,188	-	66,188	4.81
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	19/10/2021	<u>10.319.396 -</u> <u>10.443.467</u>	13	124,072	-	124,072	9.01
ESTRE's Paulínia Landfill Gas Project (EPLGP) (CDM 0165)	CER	CDM	25/03/2022	<u>179.371.342 -</u> <u>179.413.441</u>	13-14	42,100	-	42,100	3.06
ESTRE's Paulínia Landfill Gas Project (EPLGP) (CDM 0165)	CER	CDM	25/03/2022	<u>179.331.342 -</u> <u>179.371.341</u>	13-14	40,000	-	40,000	2.91
North East Arnhem Land Fire Abatement (NEALFA) - ERF106185	ACCU	ANREU	4/04/2022	<u>3.768.832.971 -</u>	17-18				0.01



				3.768.833.163		193	-	193	
West Arnhem Land Fire Abatement (WALFA) Project - EOP100945	ACCU	ANREU	4/04/2022	3.769.453.870 - 3.769.455.119	17-18	1,250	-	1,250	0.09
Piccaninny Plains Carbon Abatement - EOP100549	ACCU	ANREU	4/04/2022	3.800.986.919 - 3.800.988.798	19-20	1,880	-	1,880	0.14
Wunambal Gaambera Uunguu Fire Project - EOP100641	ACCU	ANREU	4/04/2022	8.323.893.481 - 8.323.901.287	20-21	7,807	-	7,807	0.57
Tallering Station Human Induced Regeneration Project - ERF121770	ACCU	ANREU	4/04/2022	8.332.307.407 - 8.332.313.906	21-22	6,500	-	6,500	0.47
Darajat Unit III Geothermal Project (CDM 0673)	CER	ANREU	19/10/2021	<u>19.901.498 -</u> <u>19.953.458</u>	14-15	51,961	51,961		0.00
ESTRE's Paulínia Landfill Gas Project (EPLGP) (CDM 0165)	CER	CDM	25/03/2022	<u>179.131.342 -</u> <u>179.331.341</u>	13-14	200,000	200,000		0.00
ESTRE's Paulínia Landfill Gas Project (EPLGP) (CDM 0165)	CER	CDM	25/03/2022	<u>178.931.342 -</u> <u>179.131.341</u>	13-14	200,000	200,000		0.00
Total offsets retired this report and used in this report							1,376,789		
Total offsets retired this report and banked for future reports 838,172									

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Australian Carbon Credit Units (ACCUs)	17,630	1.3
Certified Emissions Reductions (CERs)	1,359,159	98.7



7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A



APPENDIX A: ADDITIONAL INFORMATION

N/A.

APPENDIX B: ELECTRICITY SUMMARY

N/A.

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following sources emissions 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 <u>one</u> of the following reasons:

- 1. Immaterial <1% for individual items and no more than 5% collectively
- 2. <u>Cost effective</u> Quantification is not cost effective relative to the size of the emission but uplift applied.
- 3. <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	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
Staff commute	Yes			

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
Not Applicable			



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.

Relevance test					
Non-attributable emission	The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions	The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.	Key stakeholders deem the emissions from a particular source are relevant.	The responsible entity has the potential to influence the reduction of emissions from a particular source.	The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.

Not Applicable





