PUBLIC DISCLOSURE STATEMENT

AGL ENERGY LIMITED

PRODUCT CERTIFICATION

GAS

CY2022

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	AGL ENERGY LIMITED
REPORTING PERIOD	1 January 2022 – 31 December 2022 (arrears)
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. Signature:  Name of signatory: Tarl Hart Position of signatory: General Manager, Product & Portfolio Customer Markets Date: 19 December 2023

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

1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	82,586.55 tCO_2-e
THE OFFSETS USED	5% ACCUs, 40% VERs, 55% VCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	08/10/2020 Adina Cirtog Pangolin Associates Next technical assessment due: 2023

Contents

2. CARBON NEUTRAL INFORMATION

Description of certification

This public disclosure statement supports the carbon neutral product certification for gas sold by AGL Energy Limited (AGL). This includes the Life Cycle Assessment and quantification of Scope 1, 2 and 3 emissions boundaries. The emissions reported here are for CY2022 which is the third year of certification.

AGL first launched a certified Carbon Neutral gas product to our residential and small business customers, and large commercial and industrial customers, as an optional opt-in offering, starting from 25 November 2020.

"Climate Active certification makes it easier for consumers to make a conscious decision to identify and choose electricity, gas and telecommunications products that are making a difference."

Carbon Neutral gas is available for purchase from AGL's subsidiary, Perth Energy. Western Australian businesses can opt-in to Carbon Neutral gas via Perth Energy.

On 31 December 2022, AGL Energy reached a milestone in its support of customers looking for carbon neutral options, with 151,329 services now on AGL's certified carbon neutral electricity and gas products, across Australia[1].

Scope

'Gas product' includes all gas sold by AGL and its subsidiaries, e.g. Perth Energy.

Functional unit

Kilograms of carbon emissions (kgCO2-e) per year will be used as a quantifiable reference to the associated greenhouse gas emissions of a gas product.

Organisation description

AGL Energy Limited (AGL) operates Australia's largest electricity generation portfolio, with an operated generation capacity of 10,010 MW[2] (31 December 2022), which accounts for approximately 20% of the total generation capacity within Australia's National Electricity Market. We are also the country's largest publicly-listed operator of renewable generation and storage assets.

AGL has a proud 186-year history of innovation and a passionate belief in progress – human and technological.

We deliver around 4.2[1] million gas, electricity, and telecommunications services to our residential, small and large business, and wholesale customers across Australia.

AGL Energy Limited includes related bodies corporate such as:

- Data and Telecommunications providers, including **Southern Phone Company Limited**, which trades as **AGL Telecommunications** and as **Southern Phone Company** and sells telecommunications products under both brands.
    - **Southern Phone Company** is one of the largest providers of fixed line, mobile and Internet communications services in regional Australia. Formed in 2002 with a vision to provide regional communities with affordable telecommunications services, SPC now serves a national customer base, and operates out of its metropolitan and regional offices.
    - **AGL Telecommunications** launched its first telecommunications products, offering Internet services in November 2020, followed by mobile SIM plans in February 2021.

- New energy providers - **AGL Energy Services Pty Ltd** sells energy solutions to residential and business customers including solar, battery storage, stand-alone power systems, energy efficient lighting and Power Factor Correction. AGL Energy Services Pty Ltd operates in all Australian states and territories and offers an end-to-end design, project management and installation service for all energy solutions sold.

- Energy retailers – **AGL Sales Pty Limited; AGL South Australia Pty Limited; AGL Retail Energy Limited ("AGL energy retail entities"), Powerdirect Pty Ltd, Perth Energy Pty Ltd.**
- **AGL energy retail entities** provide gas and electricity services to residential and business customers across New South Wales, Victoria, South Australia, Queensland and Western Australia. Offering a range of energy plans to suit varying preferences, customers can sign up to our products and services via our digital channels (AGL Website, AGL App, My Account) or by calling the AGL Contact Centre.
    - **Powerdirect Pty Ltd** provides electricity services in South Australia, New South Wales, South East Queensland, and Victoria.
    - **Perth Energy** services contestable gas and electricity customers connected to the Western Power and ATCO gas networks in Western Australia including regional areas such as Albany, Geraldton and Kalgoorlie.

During 2021, AGL acquired two of Australia's largest commercial solar businesses, Epho and Solgen Energy Group (from Anchorage Capital Partners), both market leading commercial and industrial solar businesses.

The accelerating pace of the climate transition, along with the shaping forces of customers, the community and technology, has led to significant changes to the landscape in which AGL operates.

1 https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/media-centre/2023/230209-agl-hy23-result-presentation.pdf

2 Capacity as at 31 December 2022 (https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/media-centre/2023/230209-agl-hy23-result-presentation.pdf). Note that subsequent to this AGL closed the Liddell Power Station in April 2023

Product description

Gas product includes all gas sold by AGL and Perth Energy to customers who have opted-in to carbon neutral. A cradle to grave approach was taken for the LCA of the gas product.

Residential customers can choose to add certified Carbon Neutral to their gas plans for $0.50 per week*. Small business customers can add Carbon Neutral to their gas plans from $7 per week*.

*Prices effective as of 30 April 2022. All prices include GST.

Functional unit

Kilograms of carbon emissions (kgCO2-e) per year will be used as a quantifiable reference to the associated greenhouse gas emissions of a gas product.

Product process diagram

Upstream emissions

Attributable process name	Excluded emission sources
Opt-in Gas purchased from wholesale market for CY2022 for Residential, Small Business and C&I Customers. Scope 3 emissions associated with the extraction, production, transmission and distribution of gas.	Upstream trace of gas supplied into network from AGL's Camden Gas Project in NSW, as source cannot be split between supply to wholesale market and AGL customers.

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Production/Service delivery

AGL retail operations

- Gas use
- Advertising & Marketing Services
- Business Travel
- Electricity
- Employees
- Food & Beverage
- ICT Equipment
- ICT Services
- Office Supplies & Services
- Postage, Courier & Logistics
- Stationary Fuels
- Synthetic Greenhouse Gases
- Waste
- Water & Wastewater

Fugitive emissions from AGL's gas storage facilities in Newcastle and Silver Springs.

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Downstream emissions

Gas Usage

- Downstream consumption of gas by AGL customers.
- Scope 1 emissions associated with the combustion of gas.

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' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable emissions 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

Advertising & Marketing
Services
Business Travel
Electricity
Employees
Food & Beverage
ICT Equipment
ICT Services
Office Supplies & Services
Postage, Courier & Logistics
Stationary Fuels
Synthetic Greenhouse Gases
Waste
Water & Wastewater
Gas purchased from the wholesale market
Combustion of gas by the customer.

Non-quantified

Fugitive emissions from AGL's gas storage facilities in Newcastle and Silver Springs.

Optionally included

N/A

Outside emission boundary
Non-attributable

Third party sales channels.

Upstream trace of gas supplied into network from AGL's Camden Gas Project in NSW, as source cannot be split between supply to wholesale market and AGL customers.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Proudly Australian for 186 years, AGL supplies energy and other essential services to residential, small and large businesses and wholesale customers. We operate Australia's largest private electricity generation portfolio with a total installed capacity of 10,010 MW[1], which accounts for approximately 20% of the total generation capacity within Australia's National Electricity Market (NEM). We are also the operator of the largest portfolio of renewable generation and storage assets of any ASX-listed company.

We have a strong track record in delivering action on climate change and the energy transition and provide a range of products and services to help our customers decarbonise their businesses and homes.
We are committed through our Climate Transition Action Plan to do the following:

- The targeted closure of Loy Yang A Power Station by the end of FY35[2]. This targeted exit from coal-fired generation, up to a decade earlier than previously announced, would avoid up to 200 $MtCO_2e$ 3 of greenhouse gases being emitted compared to previous Loy Yang A Power Station closure date.
- Annual greenhouse gas emissions reduction[4] by at least 17% by FY24[5] following the closure of Liddell Power Station in April 2023.
- Greenhouse gas emissions reduction[4] by at least 52% by FY35[5] following the closure of the Bayswater Power Station by 2033.
- Net Zero for operated Scope 1 and 2 greenhouse gas emissions following the closure of all AGL's coal-fired power stations.
- Decarbonisation pathway development to achieve our ambition of being Net Zero for Scope 3 greenhouse gas emissions by 2050.
- Seek to supply our customer demand with ~12 GW of additional renewable and firming capacity, requiring a total investment of up to $20 billion[6] before 2036. Our initial target is to have up to 5 GW of new renewables and firming capacity in place by 2030, funded from a combination of assets on our balance sheet, offtakes and via partnerships.

Together with our ambition to invest in new renewable and firming capacity, we have brought forward the targeted closure dates for AGL's coal-fired power stations to support the transition to a lower carbon world aligned with the Paris Agreement[7] goals.

Our plan recognises that a balance needs to be struck between responsible transition and rapid decarbonisation to keep Australia's electricity supply secure, reliable and affordable. We are committed to working constructively with our stakeholders, including government, our people and the communities in which we operate, to lead a responsible and orderly transition.

The ability for AGL to execute on this target will be subject to uncertainties and risks, as described on page 12 of AGL's Climate Transition Action Plan.

The baseline year for AGL's Scope 1 and 2 emissions reduction targets as outlined in our Climate Transition Action Plan (Climate Transition Action Plan (agl.com.au) is FY19.

1.Capacity as at 31 December 2022 (https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/media-centre/2023/230209-agl-hy23-result-presentation.pdf). Note that subsequent to this AGL closed the Liddell Power Station in April 2023)

2.The ability for AGL to execute on this target will be subject to uncertainties and risks, as described on page 12 of AGL's Climate Transition Action Plan.

3.Maximum emissions avoidance estimated based on maximum annual output from Loy Yang A Power Station over the FY36 - FY46 period.

4.Operated Scope 1 and 2 greenhouse gas emissions, as reported under the National Greenhouse and Energy Reporting Act 2007, against a FY19 baseline.

5.FY24 and FY35 represent the first full financial years where no emissions from Liddell and Bayswater power stations occur following the closure of these power stations in April 2023 (FY23) and CY33 (FY34) respectively.

6.Based on capital cost estimates from AEMO Inputs, Assumptions and Scenarios Workbook, June 2022, adjusted for AGL views where considered appropriate.

7.Based on scenario modelling of the National Electricity Market (NEM) undertaken by ACIL Allen (as outlined in Appendix A of AGL's Climate Transition Action Plan) utilising a carbon budget for the NEM which is consistent with limiting global temperature increases to well below two degrees Celsius above pre-industrial levels.

Emissions reduction actions

AGL's emission reduction actions are led by the closure of our coal-fired power stations as outlined in our Climate Transition Action Plan (CTAP) released in September 2022. The relevant closures are anticipated to be undertaken in stages to 2036 and are not aptly defined as standalone annual initiatives.

In April 2022 AGL removed Liddell Unit 3 from service in the first stage of the closure of the Liddell Power Station.

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year			
		Total tCO_2-e	**Emissions intensity of the functional unit**
Base year/Year 1:	CY2020	65.7	65.06
Year 1:	CY2021	37,232.34	66.04
Year 3:	CY2022	82,586.55	60.91

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
Overall Emissions	37,232.34	82,586.55	Increase of CN product intake in CY22.

Use of Climate Active carbon neutral products and services

Certified brand name	Product or Service used
Pangolin Associates	Consultancy services

Emissions summary

Stage / Attributable Process / Source	tCO2-e
Product Emissions	78,697.97
Organisation Component	3,888.58

Emissions intensity per functional unit ($kgCO_{2-e}/GJ$)	60.91
Number of functional units to be offset (GJ)	1,355,849.59
Total emissions to be offset (tCO_{2-e})	82,586.55

6.CARBON OFFSETS

Offsets retirement approach

Not all carbon offset units are created equal. There's a wide range of carbon offsets that differ in source, methodology, and price. AGL undertakes a rigorous selection process when it comes to the carbon offsets we purchase. The eligible carbon offsets we buy meet the Carbon Neutral Standard integrity requirements set by Climate Active.

There are many different offset methodologies. Some include reforestation, renewable energy, or energy efficiency projects that generate eligible carbon offsets; projects that involve the destruction of certain industrial gases; and projects that involve the capture and destruction of methane from landfills and certain agricultural activities. Many of these projects also provide additional positive environmental and social benefits.

We believe that the projects we've chosen will make a real difference. Listed below are some representative examples of projects that we have purchased carbon offsets from.

This certification has taken in-arrears offsetting approach. The total emission to offset is 82,586.55 t CO_2-e. The total number of eligible offsets used in this report is 82,587. Of the total eligible offsets used, 0 were previously banked and 82,587 were newly purchased and retired.

Co-benefits

Berangabah Human-Induced Regeneration Project

This project establishes permanent native forests through assisted regeneration from in-situ seed sources (including rootstock and lignotubers) on land that was cleared of vegetation and where regrowth was suppressed for at least 10 years prior to the project having commenced.

Kenmore Regeneration Project

This project establishes permanent native forests through assisted regeneration from in-situ seed sources (including rootstock and lignotubers) on land that was cleared of vegetation and where regrowth was suppressed for at least 10 years prior to the project having commenced.

Paradigm Kenya Cookstoves

The Paradigm Healthy Cookstoves seeks to improve health and incomes throughout Kenya by reducing time and money spent acquiring fuel for household and institutional cooking.

Burn Stoves Project in Kenya

This project enables more families in rural Kenya to cook with cleaner cookstoves. Rural families in this region typically spend significant resources gathering firewood and charcoal for cooking on open and inefficient fires, creating indoor air pollution which leads to respiratory disease. This practice puts pressure on local forests and increases greenhouse gas (GHG) emissions. UN Sustainability Development Goals associated with this project are associated Goal 1: No Poverty, Goal 3: Good Health & Well-being, Goal 8: Decent Work & Economic Growth, and Goal 13: Climate Action.

Eligible offsets retirement summary

Offsets retired 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 retired (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 (%)**
Berangabah Human-Induced Regeneration Project	ACCUs	ANREU	26th June 2023	3,803,764,729 - 3,803,769,728	2020-21	0	4,053	0	0	4,053	4%
Kenmore Regeneration Project HIR	ACCUs	ANREU	26th June 2023	8,327,314,897 - 8,327,324,320	2020-21	0	77	0	0	77	1%
Paradigm Kenya Clean Cookstoves Project	VCUs	Verra	26th June 2023	13084-470961308-471006427-VCS-VCU-814-VER-KE-3-1918-01012021-24112021-0	2021	0	45,120	0	0	45,120	55%
Burn Stoves Project in Kenya'	VERs	GSF Registry	26th June 2023	GS1-1-KE-https://registry.goldstandard.org/credit-blocks/details/353940GS5642-16-2020-23109-252472-285808	2020	0	33,337	0	0	33,337	40%
									Total offsets retired this report and used in this report	82,587	
									Total offsets retired this report and banked for future reports	0	

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCUs)	4,130	5%
Verified Emissions Reductions (VERs)	33,337	40%
Verified Carbon Units (VCUs)	45,120	55%

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

* 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.

Project supported by LGC purchase	Project location	Eligible unit type	Registry	Surrender date	Accreditation code	Certificate serial number	Generation year	Fuel source	Quantity (MWh)
N/A									
Total LGCs surrendered this report and used in this report									

APPENDIX A: ADDITIONAL INFORMATION

Additional offsets retired for purposes other than Climate Active Carbon Neutral Certification							
Project description	**Type of offset units**	**Registry**	**Date retired**	**Serial number (and hyperlink to registry transaction record)**	**Vintage**	**Eligible Quantity (tCO_2-e)**	**Purpose of retirement**

APPENDIX B: ELECTRICITY SUMMARY

N/A.

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
Fugitive emissions from AGL's gas storage facilities	Immaterial

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
N/A			

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	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Third Party Sales Channels	N	N	N	N	N	
Upstream trace of gas supplied into network from AGL's Camden Gas Project in NSW	N	N	N	N	N	

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