



PUBLIC DISCLOSURE STATEMENT

AGL ENERGY LIMITED

**PRODUCT CERTIFICATION
SOLAR SYSTEMS
CY2021 (PROJECTION)**

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY: AGL Energy Limited

REPORTING PERIOD: Projection for 1 January 2021 – 31 December 2021

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

Date 27/05/21

Name of Signatory

Ryan Warburton

Travis Hughes

Position of Signatory

Ryan Warburton – General Manager, Commercial & Industrial Customers

Travis Hughes – General Manager, Decentralised Energy Resources



Australian Government

**Department of Industry, Science,
Energy and Resources**

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1. CARBON NEUTRAL INFORMATION

Description of certification

This public disclosure statement supports the carbon neutral product certification for the supply and installation of **solar systems** provided by **AGL Energy Limited**. This includes the Life Cycle Assessment of the Solar install and quantification of Scope 1, 2 and 3 emissions associated with the retail operations component.

In June 2021, AGL Energy Limited launched a certified Carbon Neutral Solar product to all AGL residential customers and to opt-in business customers. Forecast of the business customer intake is 5% of the current volumes. Solar systems are sold to residential customers as part of a solar and battery bundle.

The first year of certification is CY2021 using actual data from CY2020 as a base year. The base year of CY2020 is used as a comparable and a reasonable 'base' for the forecasted first year (CY2021).

Scope

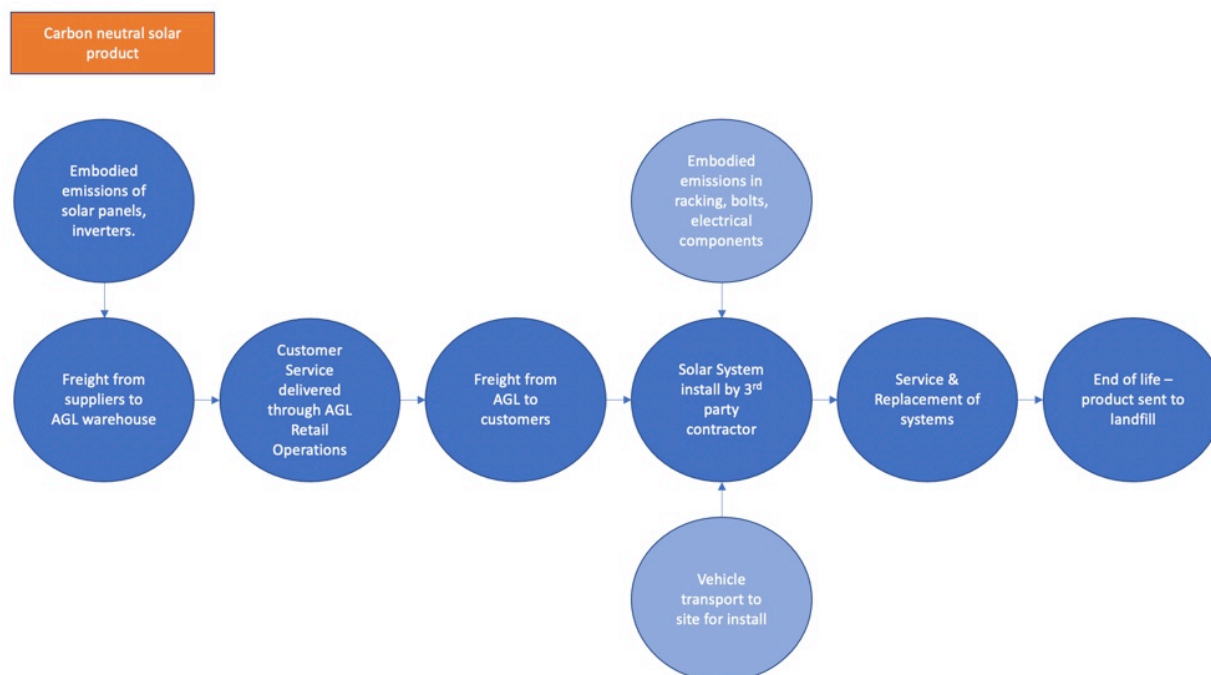
'Solar product' includes all components and services associated with the supply and installation of solar systems sold by AGL Energy Limited subsidiary businesses – AGL Energy Services Pty Limited or AGL Electricity (VIC) Pty Limited (through its subsidiary businesses Epho Holding Pty Limited and SEGH Pty Limited).

Functional unit

A functional unit of 'one kWp of solar PV system installed' will be used as a quantifiable reference to the associated greenhouse gas emissions for the Solar product. The life cycle assessment was conducted over the product warranty of the solar system which is ten years.

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

Solar Product Process Map



Organisation description

AGL Energy Services Pty Limited and **AGL Electricity (VIC) Pty Limited** are subsidiaries of **AGL Energy Limited**, a leading integrated essential service provider, with a proud 184-year history of innovation and a passionate belief in progress – human and technological.

About AGL Energy Limited

As at the date of this Public Disclosure Statement (PDS), **AGL Energy Limited** operates Australia's largest electricity generation portfolio, with an operated generation capacity of 11,080 MW (31 Dec 2020), which accounts for approximately 20% of the total generation capacity within Australia's National Electricity Market.

AGL Energy Limited delivers 4.5 million¹ gas, electricity, and telecommunications services to our residential, small and large business, and wholesale customers across Australia. We are also the country's largest publicly-listed operator of renewable energy.

As a company, AGL is evolving to become a leading multi-product energy retailer across energy, data and telecommunications.

¹ Services to customers number is as at 31 December 2020 and includes Click Energy and 100% of approximately 300,000 services to customers of ActewAGL, in which AGL owns a 50% equity stake of the retail operations.

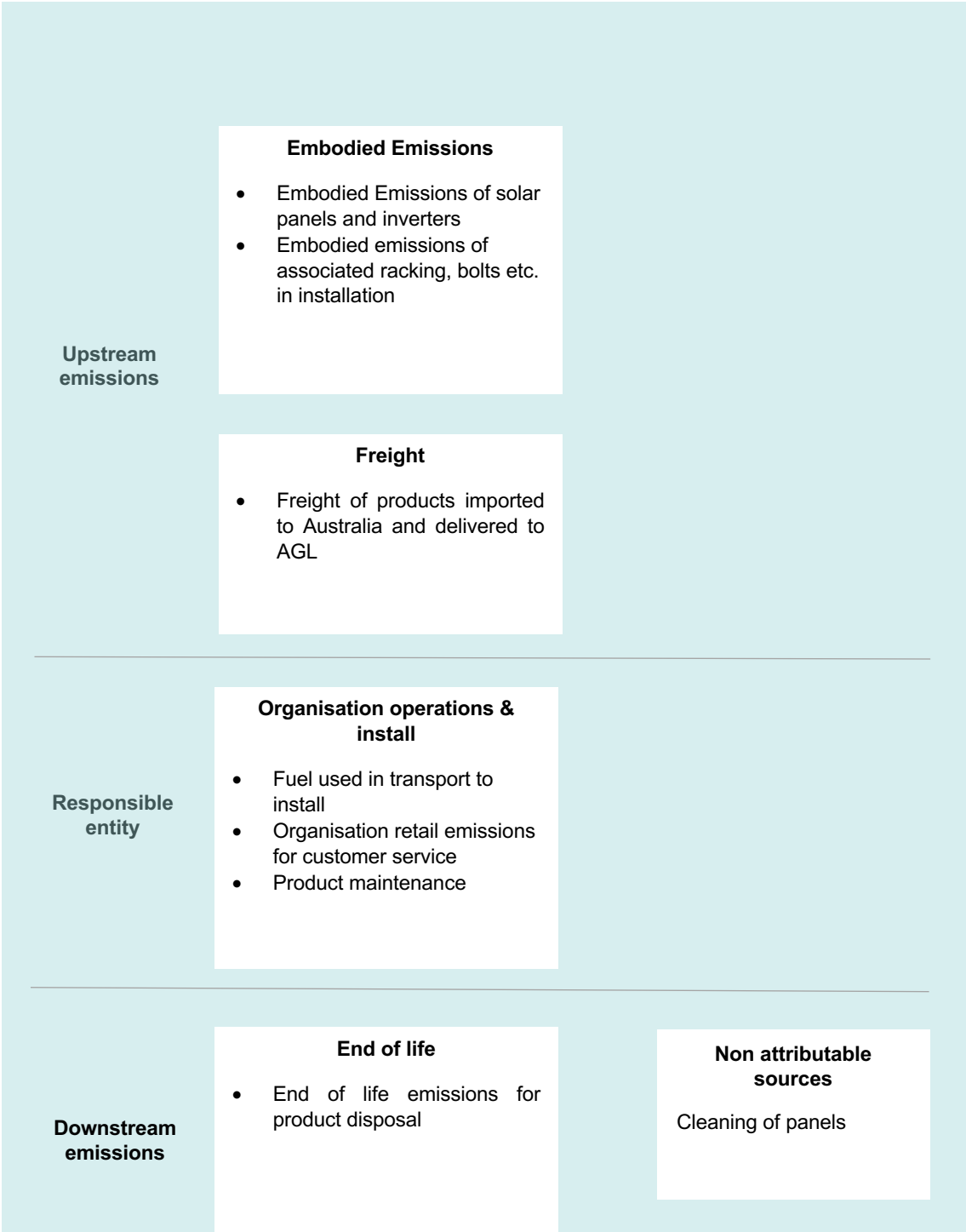
AGL Energy Limited includes related corporate bodies such as:

- New energy providers - **AGL Energy Services Pty Limited and AGL Electricity (VIC) Pty Limited**, sell 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 Limited operates in all Australian states and territories and offers an end-to-end design, project management and installation service for all energy solutions sold. **Epho Holding Pty Limited** which trades as **Epho**, and **SEGH Pty Limited** which trades as **Solgen Energy Group**, subsidiaries of AGL Electricity (VIC) Pty Limited, are both market leading commercial and industrial solar businesses.
- Energy retailers – 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 Adelaide, New South Wales, South East Queensland, and Victoria.
 - **Perth Energy Pty Ltd** operates 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.
- Data and Telecommunications providers – **Southern Phone Company Limited**. Telecommunications service provider Southern Phone Company Limited, which trades as **AGL Telecommunications** and as **Southern Phone**, sells telecommunications products under both the AGL Telecommunications and Southern Phone brands.
 - **Southern Phone** 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, Southern Phone now serves a national customer base, provides more than 250 jobs across its head office in Moruya, New South Wales, and its Bendigo office in regional Victoria.
 - **AGL Telecommunications** launched its first telecommunications products, offering Internet services in November 2020, followed by mobile SIM plans in February 2021.

On 30 March 2021, AGL Energy Limited [announced](#) its plans to pursue a structural separation, by creating two new energy businesses focused on executing distinct strategies. One will be a leading multi-product energy retailer, and the other will focus on electricity generation, supporting the economy as the energy market evolves.

Product/service process diagram

The following diagram is cradle to grave. Cradle to grave is a technique to assess the environmental impacts associated with all stages of a product's life, including upstream emissions, organizational emissions and downstream emissions.



2. EMISSION BOUNDARY

Diagram of the certification boundary

Quantified

Embodied emissions of solar panels

Embodied emissions of parts used in installation (racking, bolts etc.)

End of life emissions in product disposal

Freight

Fuel used in transport for install and maintenance

Labour Hire

AGL Retail Operations

Electricity use

Employee commute

Working from home

Transport fuels used in fleet vehicles

Waste

Water use

Business flights

Business accommodation

Telecommunications

IT Equipment

Printing & Stationery

Paper

Advertising

Stationery

Travel Expenses

Catering & Entertainment

Postage & Couriers

Refrigerants

Non-attributable

Credits from Electricity generated over the lifetime of the solar system.

Cleaning of the panels.

Non-quantified

N/A

Excluded

N/A

Attributable non-quantified sources

N/A

Data management plan

N/A

Excluded sources (within certification boundary)

N/A

Non attributable sources (outside certification boundary)

There are no emissions associated with solar generation and no credit has been applied to this Life Cycle Assessment for electricity generation.

Cleaning of the panels is not part of the current offering.

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

3. EMISSIONS SUMMARY

Emissions reduction strategy

AGL is serious about our responsibility to provide sustainable, secure, reliable, and affordable energy. We have a proud heritage as the country's largest publicly-listed operator of renewable energy and operate some of Australia's largest solar and wind farms. We are also the custodians of some of the largest and oldest coal-fired power plants in Australia. As the electricity system changes, we are focused on developing flexible supply to support this transition.

In June 2020, AGL released its updated [Climate Statement](#). This Statement recognises that AGL cannot predict how the energy and political landscape may change, but that the forces of customer demand, how communities act, and how technology evolves will be the determining factors in the pace of energy transition in Australia.

The [Climate Statement](#) includes AGL's target to achieve net zero emissions by 2050 and outlines the next steps in AGL's decarbonisation journey, including commitments to:

1. Offer customers the option of carbon neutral products across all AGL products;
2. Support the evolution of Australia's voluntary carbon markets;
3. Continue to invest in new sources of electricity supply;
4. Responsibly transition AGL's energy portfolio; and
5. Be transparent.

Consistent with the first commitment in the [Climate Statement](#), AGL launched a new Carbon Neutral electricity product on 1 July 2020 and a Carbon Neutral gas product on 25 November 2020. This program will be expanded across all services AGL offers by the end of FY21.

The commitment to build new generation continues AGL's strong track record of investing in renewables and the firming and storage capacity that will support the continued development of renewables. This has recently included AGL acting as co-investor, offtaker and operator in the Coopers Gap and Silverton wind farms, developing and operating the Barker Inlet gas-fired power station, and pursuing a leadership position in the development and operation of both grid-scale and residential batteries.

Additionally, from FY21 AGL introduced carbon transition metrics as a third performance measure in AGL's Long Term Incentive Plan to provide a focus for AGL executives to progress the transition. AGL has taken a market leading position in this regard, being the first ASX50 organisation to link executive long-term variable pay to climate-related goals.

These initiatives are in addition to AGL's 2015 Greenhouse Gas Policy, which committed AGL to not extend the life of its coal-fired power plants. AGL's coal-fired power stations at Bayswater and Loy Yang A ensure energy reliability and security and provide AGL with the financial strength to progress the energy transition. AGL is committed to not extending the life of these coal fired power stations and closing them by no later than 2035 and 2048 respectively. As these assets age and reach the end of their technical life, AGL will

continue to run them responsibly and safely to supply affordable and reliable electricity to its customers. AGL will also support our people and local communities through change and remain flexible to how customers, community and technology shape the pace of the energy transition.

AGL is a leader in the transition to decarbonisation in Australia with four FY24 targets:

- 850 MW grid scale batteries installed and managed by FY24
- 34% of electricity capacity from renewables and clean storage by FY24
- 20% of total revenue from green energy and carbon neutral products by FY24
- 350 MW decentralised assets under orchestration by FY24

AGL is working closely with its strategic supply partners to understand their sustainability strategy, policies and actions. This covers a broad range of sustainability aspects including energy efficiency, emission reductions, environmental management & certification, supply chain procurement and renewable energy sourcing. This also extends beyond sustainability to other social impacts (e.g. slavery, child labour, responsible sourcing, fair work practices).

- Among the activities some of our vendors have publicly committed reducing emissions through:
- the introduction of materials with reduced weight, costs and carbon footprints;
- embedding UN sustainable development goals into medium term targets;
- replacing plastic with biodegradable packaging;
- establishing company-owned Solar systems to increase the power supply from renewable sources.

Functional units

Table 1

<i>Business and Residential Solar</i>	Number of functional units
<i>Number of functional units to be forward offset demonstrating commitment to carbon neutrality (true-up to be conducted at the end of the reporting period)</i>	2003.73 (kWp)*

* the number of functional units offset shown reflects the period the product is in market from launch date till the end of the reporting period.

Emissions summary (inventory)

Table 2

Emission source category – <i>Business and Residential Solar</i>	tonnes CO ₂ -e
Residential Solar Systems Install (Manufacturing of panels, inverters, raking; Transport; Installation; Service and replacement, EOL)	5876.39
Organisation Emissions component	152.46
Business Solar Systems Install (Manufacturing of panels, inverters, raking; Transport; Installation; Service and replacement, EOL)	1045.81

Organisation Emissions component	6.09
1. Total inventory emissions	7080.75
2. Emissions per functional unit (based on the number of functional units represented by the inventory) Total tCO ₂ -e divided by the number of functional units in table 1.	1.7814
3. Carbon footprint (Emissions per functional unit (2)* number of functional units (a or b from table 2))	3569

*the total inventory is on annual basis while the FU number is based on the period the product is in the market during the reporting period.

Uplift factors

N/A

Carbon neutral products

The services provided by Pangolin Associates in preparing this inventory are carbon neutral.

4. CARBON OFFSETS

Offset purchasing strategy: forward purchasing

AGL are forward purchasing offsets for CY2021 based on projected emissions and a true-up will occur at the end of the reporting period. If required, additional offsets will be purchased at the end of CY2021.

Table 3

Forward purchasing summary	
1. Total offsets previously forward purchased for this reporting period	0
2. Total offsets required for this reporting period	3569
3. Net offset balance for this reporting period	3569
4. Total offsets to be forward purchased for next reporting period	0

Offsets summary

Table 4

1. Total offsets required for this report				3,569					
2. Offsets retired in previous reports and used in this report				0					
3. Net offsets required for this report				3,569					
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Quantity (tonnes CO2-e)	Quantity used in previous report	Quantity banked for future years	Quantity used in this report
Carbon Conscious Carbon Capture Project 2 (EOP100638)	ACCUs	ANREU	8 April 2021	3,753,705,451 - 3,753,706,164 (Refer section 6)	2016/17	714	0	0	714
Ceramic Water Purifiers Project in Cambodia (GS1020)	GSVERs	GSF Registry	8 April 2021	GS1-1-KH-GS1020-16-2019-20065-3322-6176	2019	2,855	0	0	2,855
Total offsets retired this report and used in this report							3,569		
Total offsets retired this report and banked for future reports							0		

Co-benefits

Not all carbon offset units are created equal. There's a wide range of carbon offsets that differ in source, methodology, and price. AGL undertake 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 know that balancing quality and affordability is important to our customers, so we only purchase eligible carbon offsets that meet the integrity requirements under the Climate Active Carbon Neutral Standard, which is backed by the Australian Government.

Carbon offsets we've pre-purchased

We believe that the projects we've chosen will make a real difference. Initially, our pre-purchase obligations have been secured with certificates for the following projects:

Carbon Conscious Capture Project 2 in Western Australia

AGL has pre-purchased and retired Australian Carbon Credit Units (ACCU) from the Carbon Conscious Capture Project 2, developed by Carbon Conscious Investments Ltd (Carbon Conscious), a member of the Carbon Market Institute and a foundation signatory of the Australian Carbon Industry Code of Conduct.

Carbon Conscious' reforestation of 11,007 hectares of land in Western Australia, sequesters carbon from the atmosphere following the plantation of more than six million native trees on land previously cleared for dryland cropping and grazing.

This region is recognised as significantly over-cleared, and the reforestation is providing protective habitat for native flora and fauna, reducing wind and water erosion and in some cases reducing soil salinity, as well as providing a useful environment for sheep and honey bees.

Ceramic Water Purifiers Project in Cambodia

AGL has pre-purchased and retired Gold Standard Verified Emissions Reductions (GSVERs) from the Ceramic Water Purifiers Project, developed by Hydrologic Social Enterprise Company Ltd, a social enterprise which has a mission to ensure all families in rural Cambodia have access to safe, clean drinking water. The use of water purifiers eliminates the need for wood fuel, therefore reducing the depletion of Cambodia's forest resources, reducing greenhouse gas emissions and improving indoor air pollution.

With the assistance of carbon finance, this project can be economically sustainable and provides a significant improvement in public health and household welfare. This project will provide access to adequate levels of clean drinking water to an estimated 1.7 million people across 312,000 households over seven years. This project directly addresses several of the United Nations Millennium Development Goals (MDGs), including

Goal 4 and 7, and especially to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. It also integrates the principles of sustainable development into country policies and programs and reverses the loss of environmental resources, reducing child mortality, improving maternal health, combating disease, and ensuring environmental sustainability.

5. USE OF TRADE MARK

Table 5

Description where trademark used	Logo type
AGL Carbon Neutral landing page on AGL website	Certified product
AGL Carbon Neutral customer communications	Certified product
AGL Business Energy Solutions landing page on AGL website	Certified product
AGL Business Energy Solutions customer communications	Certified product
Epho website and customer communications	Certified product
Solgen Energy Group website and customer communications	Certified product

6. ADDITIONAL INFORMATION

Carbon Conscious Carbon Capture Project 2 (EOP100638) – ACCU - Registry transaction record

Transaction ID	AU17996
Current Status	Completed (4)
Status Date	08/04/2021 11:41:33 (AEST) 08/04/2021 01:41:33 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Xie, Chang Zuo
Transaction Approver	Merrington, Jane
Comment	On behalf of AGL for CY2021 Solar Carbon Neutral Certification under Climate Active

Transferring Account	
Account Number	AU-2680
Account Name	AGL Hydro Partnership
Account Holder	AGL HP1 Pty Limited

Acquiring Account	
Account Number	AU-1068
Account Name	Australia Voluntary Cancellation Account
Account Holder	Commonwealth of Australia

Transaction Blocks													
Party	Type	Transaction Type	Original CP	Current CP	ERF Project ID	NGER Facility ID	NGER Facility Name	Safeguard	Kyoto Project #	Vintage	Expiry Date	Serial Range	Quantity
AU	KACCU	Voluntary ACCU Cancellation			EOP100638					2016-17		3,753,705,451 - 3,753,706,164	714

Transaction Status History	
Status Date	Status Code
08/04/2021 11:41:33 (AEST)	Completed (4)
08/04/2021 01:41:33 (GMT)	
08/04/2021 11:41:33 (AEST)	Proposed (1)
08/04/2021 01:41:33 (GMT)	
08/04/2021 11:41:33 (AEST)	Account Holder Approved (97)
08/04/2021 01:41:33 (GMT)	
08/04/2021 11:25:05 (AEST)	Awaiting Account Holder Approval (95)
08/04/2021 01:25:05 (GMT)	

APPENDIX 1

Non-attributable emissions for products and services

To be deemed attributable an emission must meet two of the five relevance criteria. Non-attributable emissions are detailed below against each of the five criteria.

Table 6

Relevance test					
Non-attributable emission	<i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions</i>	<i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i>	<i>Key stakeholders deem the emissions from a particular source are relevant.</i>	<i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i>	<i>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.</i>
<i>Electricity generated over the lifetime of the solar system</i>	There are no emissions associated with solar generation and no credit has been applied to this Life Cycle Assessment for electricity generation.				

APPENDIX 2

Non-quantified emissions for products/services

Please advise which of the reasons applies to each of your non-quantified emissions. You may add rows if required.

Table 7

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