PUBLIC DISCLOSURE STATEMENT

HOLCIM (AUSTRALIA) PTY LTD

PRODUCT CERTIFICATION - HUMES CLIMATE ACTIVE PRECAST CONCRETE PRODUCTS (OPT-IN)

CY2023

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	HOLCIM (AUSTRALIA) PTY LTD
REPORTING PERIOD	Calendar year 1 January 2023 – 31 December 2023 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 Standard.* 
	Cyril Giraud Head of Sustainability 30 July 2024

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

Version: January 2024

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	305 tCO_2-e
CARBON OFFSETS USED	100% VCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by start2see Pty Ltd through the Environmental Product Declarations (EPDs) of Humes reinforced concrete pipes and precast and prestressed concrete products.
TECHNICAL ASSESSMENT	Date: 28 June 2024 Name: Rob Rouwette Organisation: start2see Next technical assessment due: 30 April 2027

Contents

2. CERTIFICATION INFORMATION

Description of product certification

Holcim's Opt-in Climate Active Certification for Humes covers its ranges of pre-cast concrete products and solutions covered by an EPD.

- Functional unit: The functional unit is defined as 1 tonne of precast concrete product manufactured.
- Offered as: opt-in product.
- Life cycle: The carbon account covers the cradle-to-gate (modules A1-A3) life cycle stages (as shown in figure 1) of the of precast and prestressed concrete products, including reinforced concrete pipes, manufactured by Humes in Australia. The cradle-to-gate life cycle assessment covers the impact from raw material extraction and processing (cradle) for all ingredients and materials, up until the product leaving the Humes Pre-cast Concrete facility (gate). Life cycle stages for the construction stage (A4-A5), use stage (B1-B7), and end of life stages (C1-C4) are not included in this Climate Active certification. The impact of downstream life cycle stages (modules A4 to C4) (i.e. transport to construction site, construction, use, disposal) is relatively minor compared to the A1-A3 (i.e. cradle-to-gate) emissions but shall not be considered zero. The downstream stages and final life of a precast product is highly variable based on project location and type of product (e.g. our products cover a wide range of applications, such as bridges, pipes, or retaining walls).

Figure 1 – Cradle-to-gate (A1-A3) life cycle stages of precast concrete products

The responsible entity for this service certification is Holcim Australia Pty Ltd, ABN 87 099 732 297.

This Public Disclosure Statement includes information for CY2023 reporting period.

Description of business

Holcim, a prominent supplier of construction materials in Australia, boasts a rich legacy dating back to 1901. Today, Holcim continues its legacy by providing essential construction materials, including aggregates, sand, ready-mix concrete, engineered precast concrete, and prestressed concrete solutions, to a diverse array of customers and projects across Australia.

Humes is Holcim Australia’s precast concrete solutions business. Humes is Australia's leading provider of engineered concrete solutions for the civil construction industry. Humes first registered an Environmental Product Declaration (EPD) for its reinforced concrete pipes (RCPs) in 2017 (S-P-00998). This was followed by the EPD for Humes Precast and Prestressed Concrete (S-P-01545) in 2020. The development of the EPDs is part of Holcim’s drive to comprehensively analyse and communicate to customers the embodied environmental impacts of Holcim’s products and having all key products represented by an EPD in Australia. EPDs help support designers and developers to drive improved sustainable procurement and materials selection and supporting the standardisation and transparency of environmental claims and specifications.

3. EMISSIONS BOUNDARY

Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the Climate Active Certification.

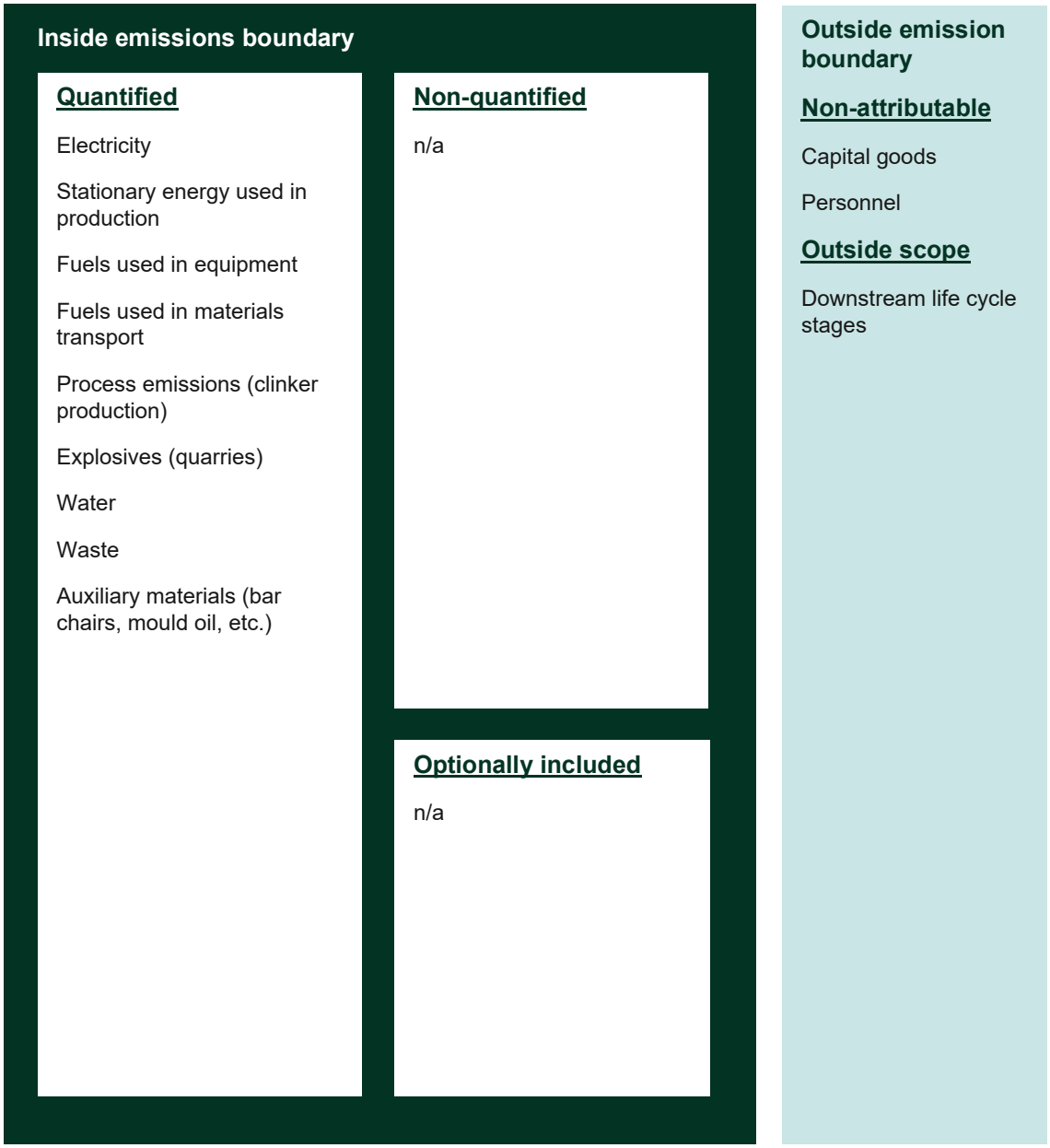
Quantified emissions have been assessed as 'attributable processes' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable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

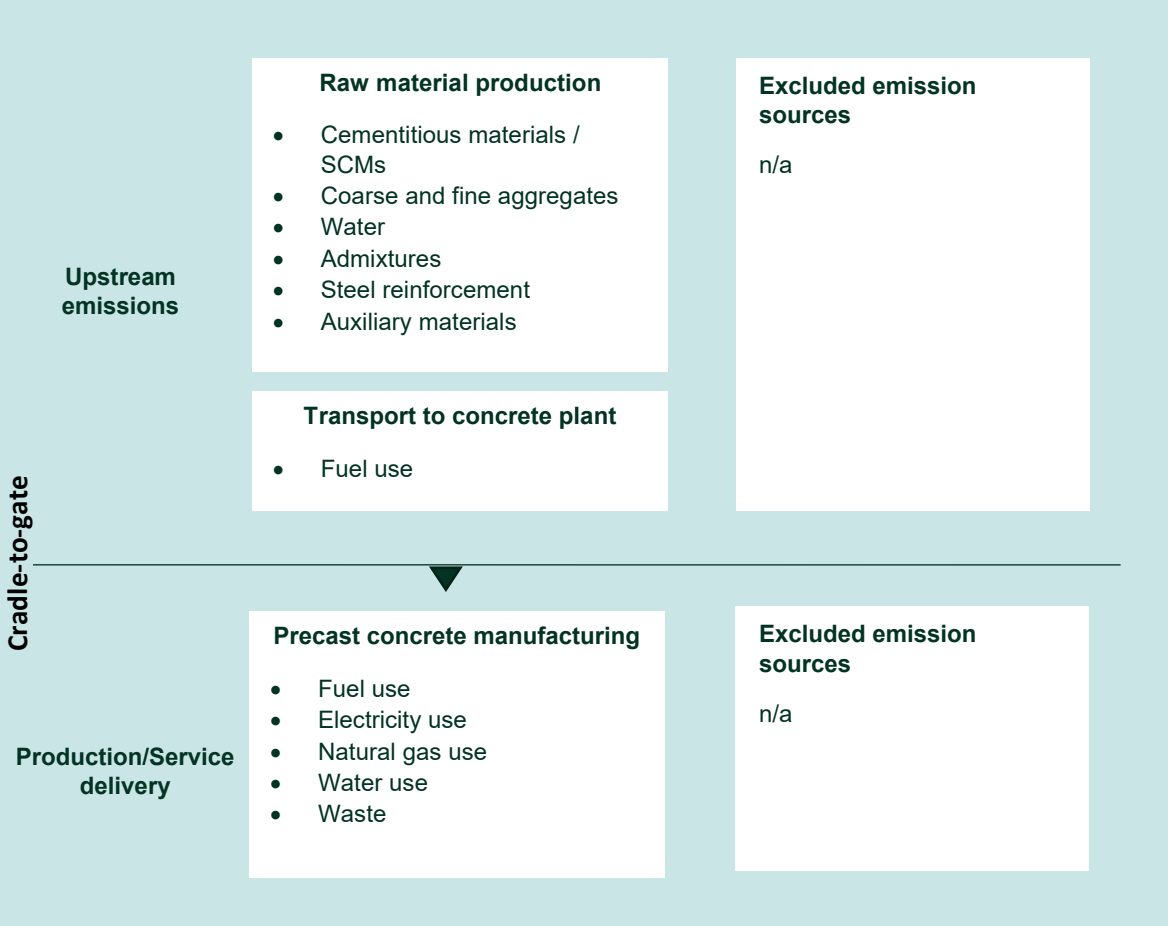
Non-attributable emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the climate active certifcation).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

The emission sources in the boundary diagram hereafter are as per the emissions categories in the emission summary table (in section 4).


Inside emissions boundary
Quantified
Electricity
Stationary energy used in production
Fuels used in equipment
Fuels used in materials transport
Process emissions (clinker production)
Explosives (quarries)
Water
Waste
Auxiliary materials (bar chairs, mould oil, etc.)
Non-quantified
n/a
Optionally included
n/a
Outside emission boundary
Non-attributable
Capital goods
Personnel
Outside scope
Downstream life cycle stages

Product process diagram

The following diagram shows the product processes included within the scope of the footprint. The emission sources covered cover the cradle-to-gate boundary. Downstream emissions are outside the scope of the certification.



The contribution of capital goods (production equipment and infrastructure) and personnel is outside the scope of the LCA, in line with the Product Category Rules.[1]

[1] International EPD System PCR2019:14 (version 1.33), Product category rules according to ISO 14025 and EN 15804, PCR for Construction products, registration number 2019:14, published on 1 March 2024.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

To avoid the most extreme impacts of climate change, the world must rapidly transition to a near net-zero economy by 2050 to limit warming to 1.5°C against pre-industrial levels. As a global leader in innovative and sustainable building solutions, Holcim is part of the solution in addressing the urgent challenge of climate change. We are putting climate action at the heart of our business strategy, to build progress for people and the planet.

At Holcim, we are taking a science-driven approach on the journey to becoming a net-zero company. Holcim was amongst the first companies worldwide to have its 2030 and 2050 CO_2 reduction targets validated by the Science Based Targets initiative (SBTi) as aligned with a 1.5°C scenario.

Our commitment to accelerate decarbonization across the whole building value chain is based on four key areas:

- **Decarbonising our operations**: We are Decarbonising our energy use across our operations, from alternative fuels to renewable electricity; deploying decarbonized materials for low carbon product.
- **Building better with less**: We are decarbonising construction with our range of low carbon materials.
- **Circular construction**: Shifting gears from a linear “take-make-dispose” approach to a circular “reduce, recycle, regenerate” economy.
- **Making buildings sustainable**: We are decarbonising cities with our broad range of Solutions and Products, to make buildings more sustainable in use.

In 2022, Holcim updated its Global 2030 climate targets in line with the SBTi's revised 1.5°C-aligned roadmap. With these upgraded targets, we confirm our commitment to decarbonize building, leveraging the most advanced science.

- Holcim commits globally reduce gross scope 1 GHG emissions 23.3% per tonne of cementitious material and scope 2 GHG emissions 65% per tonne of cementitious materials within the same timeframe.[1]
- Holcim commits to reduce its gross scope 3 GHG emissions from purchased goods and services 25.1% per tonne of purchased clinker and cement by 2030 from a 2020 base year.
- Holcim also commits to reduce its scope 3 GHG emissions from fuel and energy related activities 20% per tonne of purchased fuels by 2030 from a 2020 base year.
- Furthermore, Holcim commits to reduce its scope 3 GHG emissions from downstream transport and distribution 24.3% per tonne of materials transported within the same timeframe.

In 2022, Holcim also updated its Global 2050 climate targets in line with the SBTi's revised 1.5°C-aligned roadmap

- We will reduce our scope 1 and 2 GHG emissions by 95% per tonne of cementitious materials from a 2018 base year.[2]
- We will reduce our absolute scope 3 GHG emissions by 90% by 2050 from a 2020 base year.[3]

Our second Global Climate Report shares our progress on our net-zero journeys, including our upgraded 2030 targets aligned with the 1.5°C framework and validated by the Science Based Targets initiative. Please refer to Holcim's Climate Policy[4] , webpage on climate action[5] and Global Climate Report[6] for further details.

Emissions reduction actions

Humes continues to focus on reducing the embodied carbon impact of its products through a number of levers, such as:

- Design efficiency of the product - The embodied carbon impact can be reduced through optimizing the design of a product to ensure the optimal quantity and ratio of materials are used.
- Optimising the quantity of cement in the concrete mix design - Cement is typically the largest embodied carbon impact within the cement.
- Increasing use of supplementary cementitious materials (SCM) - The carbon intensity can be reduced by replacing the cement with alternative materials. Depending on the application and the manufacturing site, SCM may include industrial by-products like fly ash and/or blast furnace slag.
- Using admixtures - Admixtures can assist in reducing the amount of cement and water needed in the mix, improving its workability, enhance durability and longevity and reduce carbon emissions.
- Optimising the quantity and type of reinforced steel used – Steel is typically the second highest contributor to the embodied carbon impact of precast concrete
- Reviewing and reducing site impacts (i.e. quantity of steam for curing concrete products, efficiency of boilers)
- Increased percentage of renewable electricity used by installation of solar power systems - Humes has installed solar power systems across ten sites. Details of the installed solar capacity

[2] The target boundary includes land-related emissions and removals from bioenergy feedstocks.
[3] This net-zero validation was evaluated within the parameters of the Business Ambition for 1.5°C campaign and it covers categories 1, 3, 4, 6, 7 and 9 of Holcim's scope 3 emissions.
[4] https://www.holcim.com/sites/holcim/files/2023-04/holcim_climate_policy.pdf
[5] https://www.holcim.com/sustainability/climate-action
[6] https://www.holcim.com/sites/holcim/files/2024-04/28022024-holcim-climate-report-2023.pdf

is attached below:

- Humes Welshpool - 99kW installed
- Humes Ipswich - 110kW installed (About to complete upgrade)
- Humes Blacktown - 99kW installed (Scheduled Upgrade)
- Humes Echuca - 70kW installed
- Humes Rockhampton - 99kW installed (Scheduled Upgrade)
- Humes Townsville - 2 x 30kW installed
- Humes Pooraka M/Shop - 99kw installed
- Humes Tamworth - 99kW installed
- Humes Laverton - 99kW installed
- Humes Darwin -19.2kW installed

5.EMISSIONS SUMMARY

Emissions over time

This section compares emissions over time between the base year and the current year of certification. The emissions intensity of the of the functional unit and the total emissions change each year depending on quantity and type of opt-in climate active products sold.

Emissions since base year			
		Total tCO_2-e	Emissions intensity of the functional unit
Base year / Year 1:	CY 2021	0	n/a
Year 2:	CY 2022	86	0.404
Year 3:	CY 2023	305	0.334

Significant changes in emissions

Our products are Climate Active certified on an opt-in basis. This means we expect to see significant changes in emissions intensity and total emissions of certified products from year-to-year, depending on which ones of our thousands of products are offset in a given year.

Use of Climate Active products, services, buildings or precincts

Holcim does not claim to have used any Climate Active certified products in the reporting period.

Emissions summary

Humes produces thousands of different precast and prestressed concrete product variations, as well as thousands of different concrete pipe product variations, across Australia. Our EPDs allow the quantification of cradle-to-gate emissions for each of these products based on key characteristics. Under our opt-in Climate Active scheme, Humes will determine the GHG intensity of each product sold as Climate Active and establish the total footprint to be offset accordingly.

The total attributable emissions in the table below (305 tCO_2-e) cover the full quantity of all opt-in products sold from all products lines covered by the certification. However, the breakdown of emissions by source in the table below is based on a representative product (DN600 class 4 reinforced concrete pipe manufactured in Townsville). Each precast concrete product will show a unique percentage breakdown of these emission sources, as the relative amount of steel and concrete – as well as the concrete mix – varies between products, but the overall picture regarding the relative size of emission sources will be similar to this example.

The emissions summary represents attributable emissions from customers who have opted-in to the product only.

Emission source	**tCO_2-e**
Concrete (raw materials plus transport to plant)	170
Steel Reinforcement (raw materials plus transport to plant)	84.1
Rubber rings (raw materials plus transport to plant)	3.56
Production Process	47.5
Production Process breakdown: Electricity	*16.3*
Production Process breakdown: Natural Gas / LPG for curing	*24.9*
Production Process breakdown: Diesel	*5.49*
Production Process breakdown: Miscellaneous and overhead	*0.79*
Attributable emissions (tCO_2-e)	**305**

Note: in line with our NGER reporting, we have applied a location-based approach to electricity in the EPD of precast and pre-stressed concrete products. However, due to changes in the underlying EPD standards, the 2024 update of the RCP EPD uses market-based electricity accounting. As electricity use in concrete production makes up a relatively minor share of the GHG emissions of precast concrete (~5% in the example above), the choice for electricity accounting method does not affect the footprint in a material way. The majority of greenhouse gas emissions are coming from the raw materials (especially cement and steel) used to make reinforced precast concrete.

No uplift factors have been applied.

Product offset liability	
Emissions intensity per functional unit	0.334 tCO_2-e/t
Emissions intensity per functional unit including uplift factors	N/A
Number of functional units covered by the certification	912 tonnes
Total emissions (tCO_2-e) to be offset	**305**

6. CARBON OFFSETS

Eligible offsets retirement summary

Offsets retired for Climate Active certification

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Verified Carbon Units (VCUs)	305	100%

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 (%)
Renewable Power Project by Axis Wind Farms (MPR Dam) Private Limited	VCUs	VERRA	1 July 2021	8556-30354050-30354729-VCS-VCU-997-VER-IN-1-1790-02082018-31122018-0	2018	-	680	86	289	305	100%
Enercon Wind Farms Karnataka Bundled Project – 73.60 MW	CERs	VERRA	23 Nov 2021	200,764,977 - 200,824,976	CP2	-	60,000	0	40,000*	0	0%
									Total offsets retired this report and used in this report	**305**	
									Total offsets retired this report and banked for future reports	**40,289**	

**40,000t for Holcim's Humes Precast concrete (opt-in) future sales / 20,000t for Holcim's ViroDecs ready-mix concrete (opt-in) future sales*

Co-benefits

The Bundled Wind Power Project in Tamilnadu, India involves installation of 396 Wind Turbine Generators (WTGs) with a total cumulative installed capacity of 236 MW. The wind energy project activity (Project) involves in the Enercon Wind Farms (WFs) in Karnataka Bundled Project with a total cumulative installed capacity of 73.6 MW. Apart from generation of renewable electricity and associated environmental benefits, the project has also been conceived to contribute towards sustainable development of the region - socially, technologically, and economically. The participants' view on the contribution of this Project towards sustainable development follows these indicators:

Social well-being:

- Improves electricity availability in the region and reduces electricity deficit situation in the local region.
- Creation of employment opportunities for the local people during the erection and commissioning of the WFs.
- Promoting infrastructural development like approach roads in the areas where the Project is located.
- Increased investment in wind energy projects will further push R&D efforts by technology providers to develop more efficient and better machinery in future.

Economic well-being:

- The project activity results in generation of additional employment opportunities directly and indirectly which helps improve the standard of living of the people in and around the project activity location.
- The generation of the offsets provides financial incentives, which encourage more investment into cleaner energy projects and also result in improved returns to the project stakeholders.
- Promotes industrial growth by catering to the energy needs arising out of the supply-demand gap of electricity.

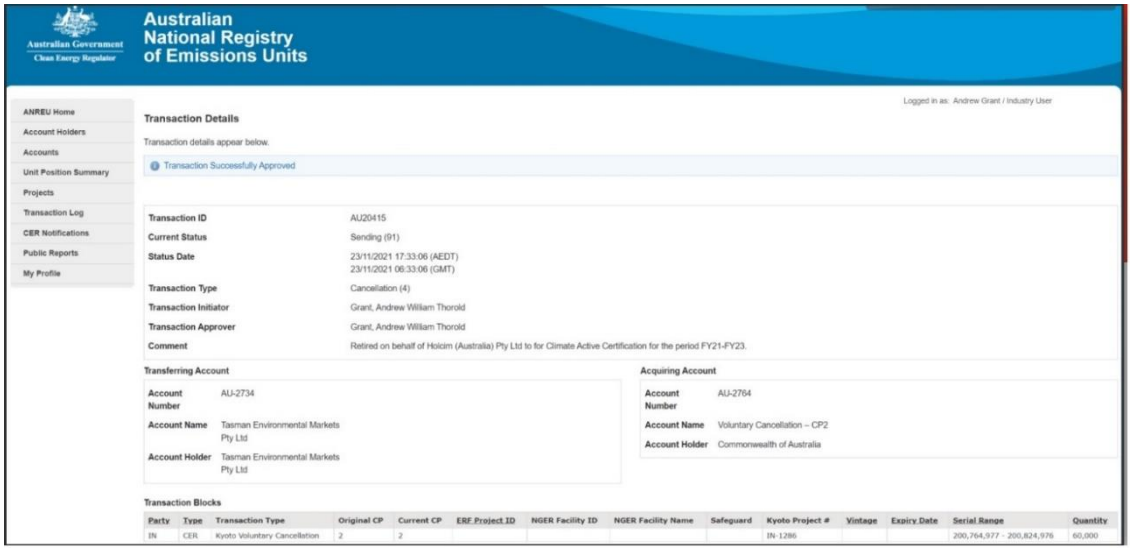
7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

Additional retirement details for CER-IND-Enercon Wind Farms Karnataka:



Australian Government
Clean Energy Regulator

Australian National Registry of Emissions Units

Logged in as: Andrew Grant / Industry User

ANREU Home
Account Holders
Accounts
Unit Position Summary
Projects
Transaction Log
CER Notifications
Public Reports
My Profile

Transaction Details

Transaction details appear below.

Transaction Successfully Approved

Transaction ID	AU20415
Current Status	Sending (91)
Status Date	23/11/2021 17:33:06 (AEDT) 23/11/2021 06:33:06 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Grant, Andrew William Thorold
Transaction Approver	Grant, Andrew William Thorold
Comment	Retired on behalf of Holcim (Australia) Pty Ltd to for Climate Active Certification for the period FY21-FY23.

Transferring Account

Account Number	AU-2734
Account Name	Tasman Environmental Markets Pty Ltd
Account Holder	Tasman Environmental Markets Pty Ltd

Acquiring Account

Account Number	AU-2764
Account Name	Voluntary Cancellation – CP2
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
IN	CER	Kyoto Voluntary Cancellation	2	2					IN-1286			200,764,977 - 200,824,976	60,000

APPENDIX B: ELECTRICITY SUMMARY

N/A

(For transparency, our 2020 EPD uses Location-based electricity accounting, while our 2024 EPD has used Market-based reporting due to changed requirements from the EPD Program.)

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

Not applicable for this certification.

Excluded emission sources

Not applicable for this certification.

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 Climate Active certification. 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 Climate Active certification. 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
Capital goods	N	N	N	N	N	**Size:** The emissions source (capital goods) is likely to be between 0% and 5% of attributable emissions, which is not large compared to other attributable emissions. **Influence:** We do not have the potential to significantly influence the emissions from this source, including by shifting to a different lower-emissions supplier for our product. Most capital goods related emissions are historical emissions. **Risk:** There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest. **Stakeholders:** Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our product. **Outsourcing:** n/a.
Personnel	N	N	N	N	N	**Size:** Personnel is likely to be between 0% and 5% of attributable emissions, which is not large compared to other attributable emissions. **Influence:** We do not have the potential to significantly influence the emissions from this source. **Risk:** There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest. **Stakeholders:** Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our product. **Outsourcing:** n/a

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