PUBLIC DISCLOSURE STATEMENT

CRRC TIMES ELECTRIC AUSTRALIA ORGANISATION CERTIFICATION

CY2023

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	CRRC Times Electric Australia Pty Ltd
REPORTING PERIOD	1 January 2023 – 31 December 2023
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 here Name of signatory FENG WEN Position of signatory DIRECTOR Date 26 JULY 2024

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

Version August 2023.

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	215 tCO_2-e
CARBON OFFSETS USED	100% VCUs
RENEWABLE ELECTRICITY	18.59%
CARBON ACCOUNT	Prepared by: Atif Mansoor, NettZero Pty Ltd
TECHNICAL ASSESSMENT	06/05/2022 Atif Mansoor NettZero Pty Ltd Next technical assessment due:06/05/2025

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2. CERTIFICATION INFORMATION

Description of organisation certification

This inventory has been prepared for the Calendar year from 01 January 2023 to 31 December 2023.

The organization is classed as a medium organization.

The certification covers the business operations of CRRC Times Electric Australia ABN 16 156 371 158 which will be offset and certified. This includes the following facilities and offices:

L 709/710, Exchange Tower, 530 Collins Street

6A Hazelwood Drive, Morwell, VIC 3840

This certification does not include emissions related to the manufacturing of rolling stock.

All calculation methods used in collecting data, calculating emissions and preparing the carbon account are adhering to the following standards:

- Climate Active Standard for Organizations
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- National Greenhouse and Energy Reporting (Measurement) Determination 2008

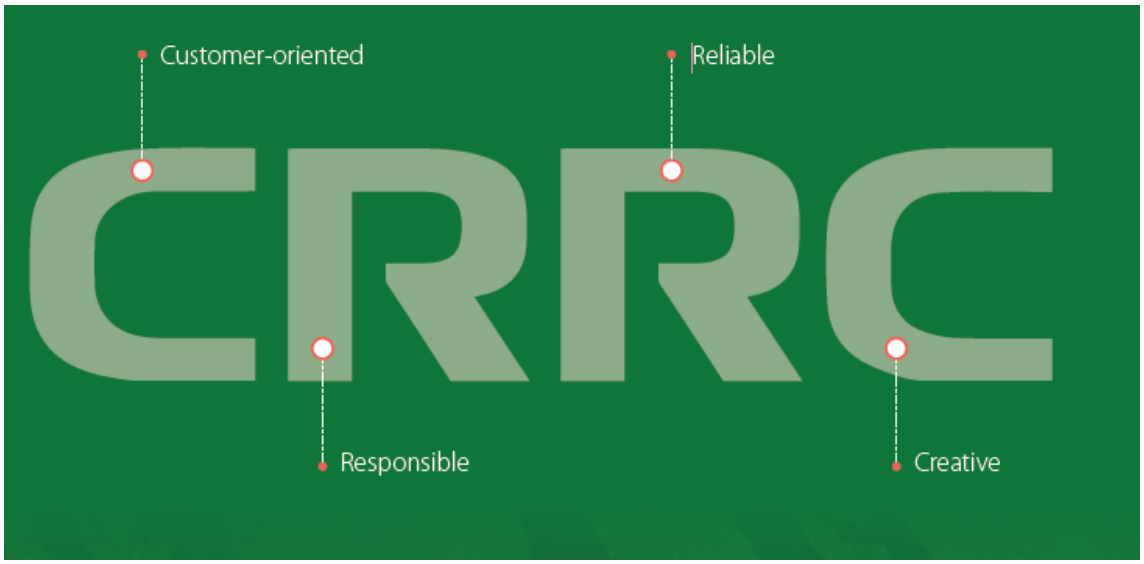
Where possible, the calculation methodologies and emission factors sed in this inventory are derived from the National Greenhouse Accounts (NGA) Factors in accordance with "Method 1" from the National Greenhouse and Energy Reporting (Measurement) Determination 2008.

The greenhouse gases considered within the inventory are those that are commonly reported under the Kyoto Protocol; carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and synthetic gases - hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3). These have been expressed as carbon dioxide equivalents (CO_2-e) using relative global warming potentials (GWPs).

Organisation description

With a history of 140 years, CRRC is a world leading supplier of rail transit equipment with a complete product portfolio and advanced technologies. CRRC committed to providing leading, efficient system solutions for the sustainable development of the global rail industry with safe, reliable, efficient, comfortable and eco-friendly products and services. As of the end of 2020, CRRC had established 78 overseas entities in 27 countries and regions, providing products and services for 109 countries and regions around the world.

CRRC strives to become "a full-value creator with high-end equipment as our core". The core value of our brand is also reflected in the Company's name (CRRC):



In Australia and New Zealand, CRRC regards eco-friendly development and environmental protection as the bottom-line principle in our local production and operations. We are committed to providing environment-friendly products and services to our customers, positively reducing energy consumption and greenhouse gas emissions during our production and operations, and working with our Australian partners to continuously build a sound environmental management system and contribute to the protection of the common global home of mankind.

Whether for passenger or freight transportation, CRRC has been pursuing the goal of providing environment-friendly rail equipment products. Due to the continuous expansion of urban development and people's activity space, the travels of urban residents are leading to constant increase in energy consumption. It is estimated that rail transit represents the most efficient means of passenger transportation. Besides, it has the characteristics of land saving, high capacity, low environmental pollution, low energy consumption per unit, safety and comfort, etc., thus becoming the optimal solution.

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 relevant and are quantified in the carbon inventory. This may include emissions that are not identified as arising due to the operations of the certified entity, however are **optionally included**.

Non-quantified emissions have been assessed as relevant 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

Excluded emissions are those that have been assessed as not relevant to an organisation's operations and are outside of its emissions boundary or are outside of the scope of the certification. These emissions are not part of the carbon neutral claim. Further detail is available at Appendix D.

Inside emissions boundary

Quantified

Electricity

LPG Gas

Air Transport

Freight shipping transport

Office supplies

Waste

Water

Accommodation

Land transport

Telecommunication

Non-quantified

Water usage from Melbourne Office

Optionally included

Professional Services – Emissions resulting from events organised by CRRC.

Outside emission boundary

Excluded

Emissions resulting from the manufacturing of the railway materials and products.

4.EMISSIONS REDUCTIONS

Emissions reduction strategy

CTEA Emissions reduction strategy

Introduction

CRRC Times Electric Australia (CTEA) is committed to reducing their emissions over the next 10 years. The incentive to rate the organization as Carbon Neutral is the first step undertaken by the authority to place an emissions benchmark on themselves, and to work towards reducing those emissions year on year.

Public Statement

Please refer to the public statement by CTEA in the 2021 sustainability report.

In Australia and New Zealand, CTEA regards eco-friendly development and environmental protection as the bottom-line principle in our local production and operations. We are committed to providing environment-friendly products and services to our customers, positively reducing energy consumption and greenhouse gas emissions during our production and operations, and working with our Australian partners to continuously build a sound environmental management system and contribute to the protection of the common global home of mankind.

Initiatives

There are several initiatives that can be implemented on site:
By 2032, there will be a commitment to reduce emissions by 30% from the base year of CY2021.
These include direct reductions in scope 1 and 2 emissions from energy as well as scope 3 emissions from both energy and waste.
The following initiatives are to be discussed and implemented on site where possible:

1) Engaging with the waste contractors to weigh in the bins as these are allocated full default bin size amounts in the carbon inventory.
2) Conducting a waste audit to minimise the amount of waste sent to landfill
3) Investigating the possibility of installing Solar Panelling on the roof of the factory at Morwell to meet demand
4) Installing LED lighting across all offices and facilities owned and operated by CRRC Times Electric.
5) Installing lighting control sensors in the warehouse
6) Working with the suppliers to improve any inefficiencies in the supply chain and parts transfers.

Targets and Missions:

1) July 2022: Conduct lighting upgrades by installing LED lighting and sensors in the Melbourne Office (Scope 2 emissions) **This has been actioned.**
2) July 2023: Complete a waste audit on the Morwell Site in Victoria (Scope 3 emissions)
3) July 2024: Engage with waste contractors to weigh in waste collected for better accountability (Scope 3 emissions) **This has been actioned.**
4) July 2026: Install lighting control sensors at the Morwell Plant (Scope 2 Emissions) **This has been actioned.**
5) July 2027: Conduct a feasibility study on the installation of Solar on the roof of the Morwell plant (Scope 2 and 3 emissions) **This has been actioned**
6) July 2022-28: Ongoing, working with suppliers to improve and reduce inefficiencies in the supply chain (Scope 3 Emissions)
7) July 2022-32: Conducting a feasibility study for the purchase of electrical forklifts for the Morwell plant (Scope 1 and 2 emissions).

Emissions reduction actions

1) The Melbourne Office was relocated to a more energy efficient location. The new office uses L.E.D. lighting which was an important selection criterion for the location.

2) CTEA engaged with their waste contractors to ensure the waste collected was appropriately weighed and measured throughout the duration of the reporting period. This was a more accurate depiction when compared to the estimation of waste carried out due to the unavailability of the weights collected. This reduced the total waste emissions by 97%, which is quite significant.

3) The team has also included in a previously excluded emissions source such as the emissions from Sea freight shipping. This is a step towards greater accountability and transparent reporting of Scope 3 emissions for CTEA.

4) The Morwell site has installed a 30 kVA Solar Generation system on the plant roof with an export output of 15 kVA. This system became operational in Nov 2023 and has since greatly reduced the energy consumption on site contributing immensely to a reduction in Scope 2 and 3 emissions from electricity.

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year			
		Total tCO_2-e (without uplift)	**Total tCO_2-e** (with uplift)
Base Year/ Year 1:	CY 2021	270.64	270.99
Year 2:	CY2022	186.33	186.57
Year 3:	CY2023	214.62	214.74

Significant changes in emissions

Significant changes in emissions			
Emission source	**Previous year emissions** (t CO_2-e)	**Current year emissions** (t CO_2-e)	**Reason for change**
Electricity (market-based method, scope 2)	48	33.21	Installation of solar generation system at the Morwell plant as well as a reduction in operational activities at Morwell.
Long economy class flights (>3,700km)	15.63	444.183	Increased international business travel during CY2023

Use of Climate Active carbon neutral products, services, buildings or precincts

N/A.

Emissions summary

The electricity summary is available in the Appendix B. Electricity emissions were calculated using a market-based approach.

Emission category	Scope 1 emissions (tCO_2-e)	Scope 2 emissions (tCO_2-e)	Scope 3 emissions (tCO_2-e)	Total emissions (t CO_2-e)
Accommodation and facilities	0.00	0.00	2.08	2.08
Electricity	0.00	33.22	4.10	37.32
ICT services and equipment	0.00	0.00	1.54	1.54
Postage, courier and freight	0.00	0.00	15.55	15.55
Professional services	0.00	0.00	9.64	9.64
Refrigerants	0.67	0.00	0.00	0.67
Transport (air)	0.00	0.00	120.30	120.30
Transport (land and sea)	3.94	0.00	13.32	17.27
Waste	0.00	0.00	8.00	8.00
Water	0.00	0.00	0.12	0.12
Office equipment and supplies	0.00	0.00	2.15	2.15
Total	**4.61**	**33.22**	**176.80**	**214.62**

Uplift factors

An uplift factor is an upwards adjustment to the total carbon inventory to account for relevant emissions that cannot be reasonably quantified or estimated. This conservative accounting approach helps ensure the integrity of the carbon neutral claim.

Reason for uplift factor	tCO_2-e
Water Consumption (Melbourne Office)	0.117
Total of all uplift factors (tCO_2-e)	0.117
Total emissions footprint to offset (tCO_2-e) *(total emissions from summary table + total of all uplift factors)*	**214.74**

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)	215	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 (%)
Ningxia Xiangshan Wind Farm Project	VCU	Verra	24 Apr 2024	15975-732266936-732267042-VCS-VCU-997-VER-CN-1-1867-01012022-31082022-0	01/01/2022 to 31/08/2022	-	107	0	0	107	49.7
Composting of organic waste project in Guangxi	VCU	Verra	24 Apr 2024	16513-764220218-764220325-VCS-VCU-997-VER-CN-13-2603-01012022-31122022-0	2022	-	108	0	0	108	50.3%
									Total eligible offsets retired and used for this report	**215**	
									Total eligible offsets retired this report and banked for use in future reports	0	

Co-benefits

Ningxia Xiangshan Wind farm Project (hereafter referred to as the Project) is located in Zhongwei City, Ningxia Hui Autonomous Region, People's Republic of China.

The project owner is Ningxia Zhongwei Aluminum New Energy Co., Ltd. The project started construction on 01/11/2016 and starts commercial operation on 15/04/2017 and fully operation on 20/07/2017.

The proposed project has a total installed capacity of 397.5MW consisting of 265 wind turbines with unit capacity of 1,500kW. The expected annual power delivered to the grid is 948,633.8 MWh. The power generated will be delivered to the Northwest Power Grid (NWPG) via Ningxia Power Grid.

The proposed project will contribute to sustainable development mainly by:

1) Reducing the emission of CO2 and other pollutants compared with fuel-fired power plants.
2) Creating local employment opportunities during the construction (more than 200 people) and operation (200 people) of the proposed project and improving the living standard of local people.
3) With the help of the road, which was constructed due to the proposed project, agriculture and other products could be transported from the mountains of Xiangshan to city by Local farmers. It can reduce poverty, which is very important to Ningxia, a poverty-stricken region.
4) The implementation of the proposed project will help to change the energy structure and thereby contribute to the development of the local economy.

The composting of organic waste project in Guangxi

The composting of organic waste project in Guangxi is located in Guangxi, China, which is operated by Guangxi Tiandong Liyuanbao Science and Technology Co., Ltd. The project includes two project activity instances. One is located in Tiandong Petrochemical Industrial park, Tiandong County, Baise city (hereafter referred to as Instance 1), another one is located in the Yizhou District, Hechi City (hereafter referred to as Instance 2).

The project is a new building composting plant which designed to treat organic wastes to produce organic fertilizer. The project comprises of a fermentation system and a fertilizer production system, etc. The instance 1 site is designed to treat 400,000 tonnes wet organic waste per year and produce 300,000 tonnes fertilizer per year. The instance 2 site designed to treat 150,000 tonnes wet organic waste per year and produce 110,000 tonnes fertilizer per year.

In absence of the project, the organic wastes would have been dumped in the landfill sites. This new project will avoid CH4 emissions from the disposal of the waste in a landfill site in absence of the Project. The project is estimated to deliver totally 32,087,169 tCO2e emission reduction during the 21 years' crediting period, at an average amount of 1,527,960 tCO2e per year.

This project started operation on 06/01/2020 (Instance 1 starts commission on 06/01/2020. Instance 2 starts commissioning on 15/01/2020). The contributions of the proposed project to local, host country and global environment and economy sustainable developments are shown as follows:

1) The project will avoid GHG emissions by treatment organic waste that would have been dumped in landfill site. Thus will effectively improve the living circumstances for local people.
2) This project will also improve soil condition by providing organic fertilizer for local people, boosting farm crop production and promote the incomes of local farmers.
3) This project could provide job opportunities for local people, which is beneficial for local livelihood.

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)*	0

* 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)
								Total LGCs surrendered this report and used in this report	**0**

APPENDIX A: ADDITIONAL INFORMATION

N/A.

APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

Location-based method:

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

Market-based method:

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.

For this certification, electricity emissions have been set by using the **market-based approach**

Market-based approach summary

Market-based approach	Activity Data (kWh)	Emissions (kg CO_2-e)	Renewable percentage of total
Behind the meter consumption of electricity generated	0	0	0%
Total non-grid electricity	**0**	**0**	**0%**
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	0	0	0%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	0	0	0%
Precinct/Building jurisdictional renewables (LGCS surrendered)	0	0	0%
Electricity products (voluntary renewables)	0	0	0%
Electricity products (LRET)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	9,594	0	19%
Residual Electricity	42,007	38,226	0%
Total renewable electricity (grid + non grid)	**9,594**	**0**	**19%**
Total grid electricity	**51,601**	**38,226**	**19%**
Total electricity (grid + non grid)	**51,601**	**38,226**	**19%**
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	**42,007**	**38,226**	
Scope 2	37,391	34,026	
Scope 3 (includes T&D emissions from consumption under operational control)	4,616	4,201	
Residual electricity consumption not under operational control	**0**	**0**	
Scope 3	0	0	

Total renewables (grid and non-grid)	**18.59%**
Mandatory	**18.59%**
Voluntary	**0.00%**
Behind the meter	**0.00%**
Residual scope 2 emissions (t CO_2-e)	**34.03**
Residual scope 3 emissions (t CO_2-e)	**4.20**
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**33.22**
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**4.10**
Total emissions liability (t CO_2-e)	**37.32**

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

Location-based approach summary

Location-based approach	Activity Data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	**100%**	**(kWh)**	**Scope 2 Emissions ($kgCO_2$-e)**	**Scope 3 Emissions ($kgCO_2$-e)**	**(kWh)**	**Scope 3 Emissions ($kgCO_2$-e)**
ACT	0	0	0	0	0	0
NSW	1,000	1,000	680	50	0	0
SA	0	0	0	0	0	0
VIC	50,601	50,601	39,975	3,542	0	0
QLD	0	0	0	0	0	0
NT	0	0	0	0	0	0
WA	0	0	0	0	0	0
TAS	0	0	0	0	0	0
Grid electricity (scope 2 and 3)	**51,601**	**51,601**	**40,655**	**3,592**	**0**	**0**
ACT	0	0	0	0		
NSW	0	0	0	0		
SA	0	0	0	0		
VIC	0	0	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
Non-grid electricity (behind the meter)	**0**	**0**	**0**	**0**		
Total electricity (grid + non grid)	**51,601**					

Residual scope 2 emissions (t CO_2-e)	**40.65**
Residual scope 3 emissions (t CO_2-e)	**3.59**
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**39.97**
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**3.54**
Total emissions liability	**43.52**

Operations in Climate Active buildings and precincts

Operations in Climate Active buildings and precincts	Electricity consumed in Climate Active certified building/precinct (kWh)	Emissions (kg CO_2-e)
N/A	**0**	**0**
Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market-based method is outlined as such in the market-based summary table.		

Climate Active carbon neutral electricity products

Climate Active carbon neutral electricity product used	Electricity claimed from Climate Active electricity products (kWh)	Emissions (kg CO_2-e)
N/A	**0**	**0**
Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their electricity product certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the electricity product under the market-based method is outlined as such in the market-based summary table.		

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources have been assessed as relevant, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. 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
Water usage for the Melbourne office	**Cost Effective** - The Melbourne Office is leased on a shared level and the water usage is not sub-metered, it is not cost effective to do so given the size of the emissions, hence an uplift ahs been applied

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 EMISSIONS BOUNDARY

Excluded emission sources

1. The below emission sources have been assessed as not relevant to this organisation's operations and are outside of its emissions boundary. These emissions are not part of the carbon neutral claim. Emission sources considered for relevance must be included within the certification boundary if they meet two of the five relevance criteria. Those which only meet one condition of the relevance test can be excluded from the certification boundary.

2. Emissions tested for relevance are detailed below against each of the following criteria:

3. Size The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions.

4. Influence The responsible entity has the potential to influence the reduction of emissions from a particular source.

5. Risk The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.

6. Stakeholders Key stakeholders deem the emissions from a particular source are relevant.

7. Outsourcing 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

Excluded emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Railway product / stock	Y	N	N	N	N	**Influence:** We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our business. **Risk:** There are no relevant laws or regulations that apply to limit emissions specifically from this source **Stakeholders:** Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business. **Outsourcing:** We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.

An Australian Government Initiative

Climate Active