PUBLIC DISCLOSURE STATEMENT

ROUNDWOOD SOLUTIONS PTY LTD

PRODUCT CERTIFICATION
CY2022

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	Roundwood Solutions Pty Ltd
REPORTING PERIOD	Calendar year 1 January 2022 – 31 December 2022 Arrears report
DECLARATION	*To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.* 
	Name of Signatory: Stephen Telford Position of Signatory: Owner 17/07/2024

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

Version: August 2023

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	1,043 tCO_2-e
THE OFFSETS USED	82% CER, 18% VER
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: EnergyLink Services Pty Ltd
TECHNICAL ASSESSMENT	17 August 2021 Michael Hallam EnergyLink Services Pty Ltd Next technical assessment due: CY 2024

Contents

2. CARBON NEUTRAL INFORMATION

Description of certification

Roundwood Solutions are a South Australian timber product manufacturer who produce a treated timber post, which is the subject of this carbon neutral product certification. This treated timber product is predominately used for agricultural fencing and is treated using a carbon-based wood treatment that allows for a full log treatment, prevents rotting, is fire resistant and does not have chemical leaching.

Product/Service description

Roundwood Solutions is a plantation timber processing and product manufacturer in South Australia. Roundwood Solutions produce both treated and untreated timber products, with all treated products being the subject of this carbon neutral product certification. All treated products sold by Roundwood Solutions are manufactured at a dedicated facility in Tantanoola, South Australia.

A cradle to gate approach has been taken as Roundwood Solutions cannot control what actions customers take with treated timber products at the end of product life. The certification covers the operation and management of plantations growing timber, harvesting timber, log transportation, all processing of timber including barking, peeling and cutting. The timber is subsequently steamed and chemically treated at the Tantanoola site, before being transported to customers.

The certification is full coverage, and the functional unit of this certification is 1 m3 treated timber produced by Roundwood Solutions, which also represents the saleable unit for this product.

3.EMISSIONS BOUNDARY

Inside the emissions boundary

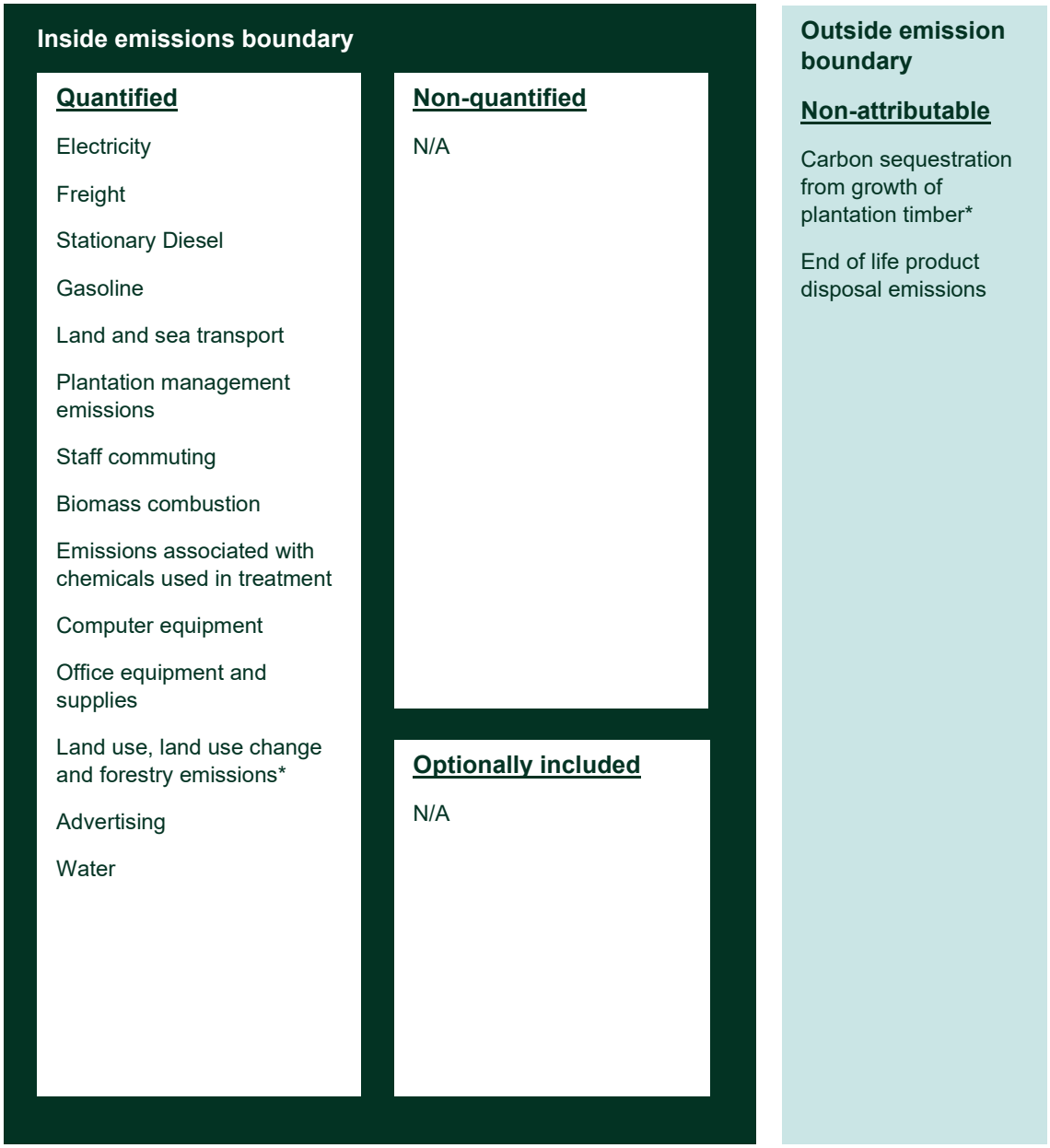
All emission sources listed in the emissions boundary are part of the carbon neutral claim.

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.



*It is noted that all timber used for product manufacturing has been sourced from plantation forestry operations that have undertaken at least 2 harvests of plantation timber. As such, and in accordance with the GHG Protocol, land use, land use change and forestry emissions are equal to zero.

Product process diagram

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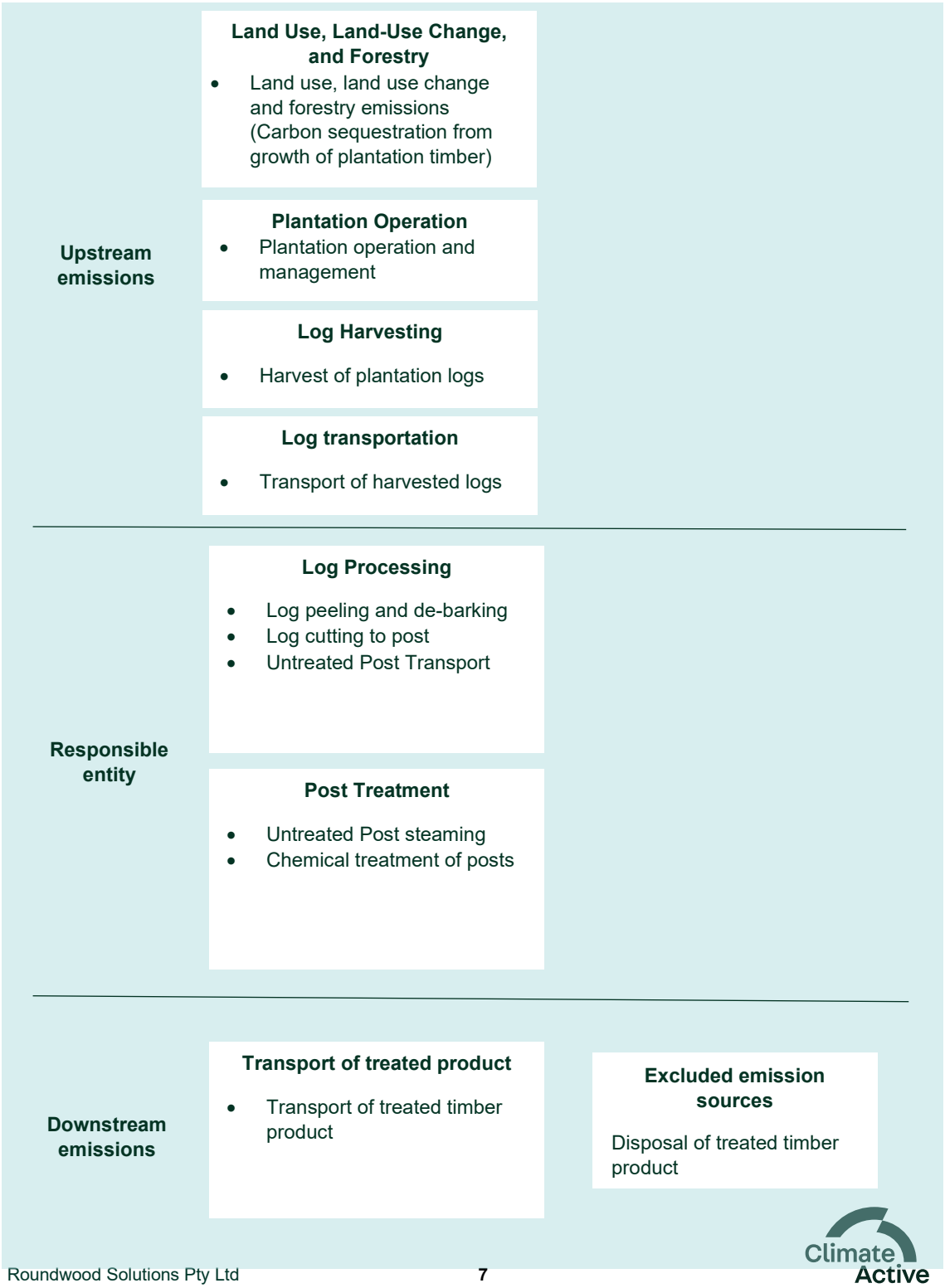

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Roundwood Solutions is committed to reducing emissions in our carbon neutral certified product range by 10% per 1 m3 treated timber produced by 2030 from a CY 2021 base year. We will do this by continuously improving our sustainable procurement and manufacturing practices.

Roundwood Solutions has proactively undertaken a series of initiatives aimed at reducing emissions, either through implementation or planned execution. These efforts encompass various strategies, including transitioning to energy-efficient LED lighting, upgrading diesel-powered mobile equipment, and the installation and utilisation of a biomass gasification system. This system plays an important role in providing process heat, particularly steam, essential for timber treatment processes.

Replacing the previous diesel-powered steaming system, the biomass gasification system is likely to play a crucial role in Roundwood Solutions' overarching emissions reduction framework, by resulting in significant reductions in diesel usage and the corresponding emissions (approximately 40% reductions in Scope 1 Stationary diesel usage). It is noted that this complex system will require a lengthy commissioning process together with reengineering to install, ensure performance, output and reliability.

Furthermore, the biomass gasification process generates a valuable byproduct: biochar. This biochar not only contributes to carbon sequestration with enduring permanence but also effectively utilizes waste timber residues from the processing of sustainably harvested logs. Thus, Roundwood Solutions not only minimizes emissions but also actively engages in sustainable practices, demonstrating a holistic approach towards environmental stewardship and operational efficiency.

Roundwood Solutions is exploring how to reduce movements between its' facilities (as a means to reduce freight emissions) and exploring how to incorporate biodiesel and electric vehicles as additional initiatives to reduce transport emissions. Roundwood Solutions is dedicated to exploring the option of purchasing products and services that are carbon neutral within the next 5 years, thus reducing its carbon footprint. Through this proactive approach, Roundwood Solutions demonstrates its commitment to sustainability and sets a positive example for others in the business community.

Emissions reduction actions

Roundwood Solutions has implemented a series of innovative emissions reduction measures, with a primary focus on transitioning away from diesel-powered systems. A notable initiative involves replacing the previous diesel-powered steaming system with a biomass gasification system. This transition is anticipated to serve as a key component in Roundwood Solutions' comprehensive emissions reduction strategy, yielding substantial reductions in diesel consumption and the associated emissions. Preliminary estimates suggest that this transition will lead to approximately a 40% decrease in Scope 1 stationary diesel usage.

However, it is acknowledged that implementing the biomass gasification system entails a meticulous and time-consuming process. This includes a lengthy commissioning phase and the need for reengineering to ensure optimal performance, output, and reliability. Despite these challenges, Roundwood Solutions remains committed to realizing the long-term benefits of this environmentally friendly alternative.

Moreover, the adoption of biomass gasification offers a dual advantage by producing biochar as a valuable byproduct. Notably, biochar serves as a means of carbon sequestration with lasting effects while effectively utilizing waste timber residues from the processing of sustainably harvested logs. Through this initiative, Roundwood Solutions not only mitigates emissions but also actively contributes to sustainable practices within the forestry industry.

By embracing these emissions reduction actions, Roundwood Solutions demonstrates a holistic approach to environmental stewardship and operational efficiency.

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year			
		Total tCO_2-e	**Emissions intensity of the functional unit**
Base year/Year 1:	CY 2021	1,220.13	0.1784
Year 2:	CY 2022	1,042.97	0.1744

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
Road Freight (rigid truck)	178.06	114.90	Road freight emissions decreased due to a reduction in the purchase of Creosote (a chemical product).
Cargo Ship : General cargo	183.02	118.34	Cargo ship emissions decreased due to a reduction in the purchase of Creosote (a chemical product).

Use of Climate Active carbon neutral products and services

N/A

Emissions summary

Stage / Attributable Process / Source	tCO_2-e
Electricity	11.27
Postage, courier and freight	446.82
Professional Services	0.07
Stationary Energy (liquid fuels)	460.18
Stationary Energy (solid fuels)	12.41
Transport (Land and Sea)	14.67
Office equipment and supplies	0.82
Water	0.07
Bespoke - Plantation Operations	88.62
Bespoke - Land Use, Land Use Change and Forestry	0.00
Bespoke - Creosote	8.04

Emissions intensity per functional unit	0.1744
Number of functional units to be offset	5,980.44
Total emissions to be offset	1,042.97

6.CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is 1,043 t CO_2-e. The total number of eligible offsets used in this report is 1,043. Of the total eligible offsets used, 187 were previously banked and 856 were newly purchased and retired. 0 are remaining and have been banked for future use.

Co-benefits

Landfill Gas Extraction and Electricity Generation Project - Istanbul, Turkey

The ISTAC Landfill Gas Extraction and Electricity Generation Project is located near Odayeri Village in the Eyüpsultan District in European Side of Istanbul and Kömürcüoda Village in Şile District in the Anatolian Side of Istanbul. The project feeds renewable electricity into the Turkish grid, and is able to supply more than 210,000 households with clean and sustainable energy.

The project will help Turkey to simulate and commercialise the use of grid-connected renewable energy technologies, helping to diversify the energy supply chain, reduce greenhouse gas emissions and air pollutants, preserve underground water resources and foster technology transfer, empowering local people with new knowledge and creating job opportunities.

Key Benefits:

- Diversifies energy supply chain via the addition of renewable energy
- Supplies clean, renewable energy for 210,000 homes
- Reduces greenhouse gas emissions and air pollutants by displacing energy from fossil fuel plants
- Preserves underground water resources
- Knowledge transfer and job opportunities for the local community

United Nation Sustainability Development Goals:

Wayang Windu Phase 2 Geothermal Power Project

The Wayang Windu Phase 2 is a 117MW geothermal power generation project, located at the Wayang Windu 40km south Bandung in West Java, Indonesia which displaces fossil fuel-based electricity with clean, renewable geothermal energy.

This project provides a range of benefits, including environmental sustainability through natural resource conservation and community health, economic sustainability for the local population, social sustainability via community participation, and technological sustainability through enhanced local capacity and utilization.

The Wayang Windu Phase 2 geothermal power generation project supports the following United Nations Sustainable Development Goals:

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 (c)**	**Eligible quantity used for previous reporting periods**	**Eligible quantity banked for future reporting periods**	**Eligible quantity used for this reporting period**	**Percentage of total (%)**
Landfill Gas Extraction and Electricity Generation Project - Istanbul, Turkey	VER	GSF Registry	12 August 2021	GS1-1-TR-GS707-21-2016-21021-132035-133442	2016	0	1,408	1,221	0	187	18%
Wayang Windu Phase 2 Geothermal Power Project	CER	ANREU	27 March 2024	34,187,948 - 34,188,803	CP2	0	856	0	0	856	82%
									Total offsets retired this report and used in this report	1,043	
									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
Certified Emissions Reductions (CERs)	856	82%
Verified Emissions Reductions (VERs)	187	18%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A.

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 location approach.

Market-based approach summary

Market-based approach	Activity Data (kWh)	Emissions ($kgCO_2$-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)	6,366	0	19%
Residual Electricity	27,785	26,534	0%
Total renewable electricity (grid + non grid)	**6,366**	**0**	**19%**
Total grid electricity	**34,150**	**26,534**	**19%**
Total electricity (grid + non grid)	**34,150**	**26,534**	**19%**
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	**27,785**	**26,534**	
Scope 2	24,537	23,433	
Scope 3 (includes T&D emissions from consumption under operational control)	3,248	3,101	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	.

Total renewables (grid and non-grid)	**18.64%**
Mandatory	**18.64%**
Voluntary	**0.00%**
Behind the meter	**0.00%**
Residual scope 2 emissions (t CO_2-e)	**23.43**
Residual scope 3 emissions (t CO_2-e)	**3.10**
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**23.43**
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**3.10**
Total emissions liability (t CO_2-e)	**26.53**

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	0	0	0	0	0	0
SA	34,150	34,150	8,538	2,732	0	0
VIC	0	0	0	0	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)	**34,150**	**34,150**	**8,538**	**2,732**	**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)	**0**					

Residual scope 2 emissions (t CO_2-e)	**8.54**
Residual scope 3 emissions (t CO_2-e)	**2.73**
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**8.54**
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO_2-e)	**2.73**
Total emissions liability	**11.27**

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**
N/A	**0**	**0**
N/A	**0**	**0**
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 product used	**Electricity claimed from Climate Active electricity products (kWh)**	**Emissions (kg CO_2-e)**
N/A	**0**	**0**
N/A	**0**	**0**
N/A	**0**	**0**
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 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
N/A	**N/A**

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
End of life product disposal emissions	Yes	Yes	Yes

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.

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Non-attributable emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
End of life product disposal emissions	N	N	N	N	N	**Size:** The emissions from timber disposal are likely to be large relative to other attributable emissions 9i.e. organisation's electricity, freight, stationary energy and plantation operation. **Influence:** We do not have the potential to influence the emissions from this source. **Risk:** The product has a significantly long lifespan, rendering its risk as irrelevant. **Stakeholders:** The exclusion of the category by deeming it as irrelevant due to it being outside the gate. **Outsourcing:** The disposal of furniture is done by the consumers, and it is not outsourced by Furphy's Foundry Sales Pty Ltd.

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