



# **PUBLIC DISCLOSURE STATEMENT**


**TANDEM ENERGY**

**ORGANISATION CERTIFICATION  
CY2021**

Australian Government

# Climate Active Public Disclosure Statement



NAME OF CERTIFIED ENTITY	RYBEHASO Pty Ltd (trading as Tandem Energy)
REPORTING PERIOD	1 January 2021 – 31 December 2021 Arrears Report
DECLARATION	<p><i>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.</i></p>  <p>Rachel Brdanovic Chief Executive Officer 31 May 2022</p>



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

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Version September 2021. To be used for FY20/21 reporting onwards.



# 1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	Offset by organisation 7.814 tCO <sub>2</sub> -e
THE OFFSETS BOUGHT	100% CER
RENEWABLE ELECTRICITY	NA
TECHNICAL ASSESSMENT	30 May 2022 Jack Gill Tandem Energy Next technical assessment due: 30 May 2025

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## 2.CARBON NEUTRAL INFORMATION

### Description of certification

This certification covers the Australian business operations of RYBEHASO Pty Ltd (trading as Tandem Energy) ABN 27 140 960 952.

### Organisation description

At Tandem Energy, we take a holistic approach to energy, carbon and environmental management, providing integrated, realistic, and innovative solutions to help our clients reduce energy costs now and in the future.

Tandem Energy is located in Gawler, South Australia, and we work with clients throughout South Australia and interstate.

*“As energy and environmental consultants, demonstrating our own commitment to becoming carbon neutral is extremely important. We know we need to act now and act fast if we wish to leave a liveable world for future generations. Climate Active certification is one step along this pathway.”*

## 3. EMISSIONS BOUNDARY

### ORGANISATION EMISSIONS BOUNDARY

This is a small organisation certification, which uses the standard Climate Active small organisation emissions boundary. Emission sources can be excluded if they do not occur.

#### 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.

**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 or precinct'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.

The emission sources in the boundary diagram below are as per the emissions categories in the emission summary table.

Organisation emissions boundary

Inside emissions boundary		Outside emission boundary
<u>Quantified</u>	<u>Non-quantified</u>	<u>Excluded</u>
Food	NA	NA
ICT Services and Equipment		
Land and Sea Transport (km)		
Office equipment and supplies		
Waste		
Working from home		
Building electricity use		
Professional services		
Postage, courier and freight		

Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

## 4.EMISSIONS REDUCTIONS

### Emissions reduction strategy

Given that Tandem Energy's emission inventory is small comparative to similar organizations, and that a significant amount of emission sources is out of the organization's control, such as the office electricity being managed by the local Council, the development of an emission reduction strategy in-line with the updated requirements of the National Carbon Offset Standard is not feasible.

Electricity from the office building that Tandem Energy lease space from is the most significant contributor to the organization's emission inventory. However, the Town of Gawler Council, who own and operate the building, are expected to adjust the contract with their electricity retailer to procure 100% GreenPower from the start of the 2022-23 Financial Year. This will avoid the emittance of almost three tonnes of Scope 2 emissions per annum.

Lastly, Tandem Energy intend to reduce waste-to-landfill and increase waste diversion to recycling and organic waste along with the reuse of materials, aiming to reduce related Scope 3 emissions by 20% over the next 5 years. This will be achieved by encouraging staff to utilise reusable containers, the purchase of biodegradable materials and continued discussions with the landlord regarding potential carbon-neutral procurement of office supplies. Additionally, Tandem Energy aims to fully embrace the digital workspace, phasing out all printing requirements by 2026.

### Emissions reduction actions

Since the last reporting period, the company has procured a Nissan Leaf Electric Vehicle to replace two ICE vehicles, which has been utilized for every practical site visit. Tandem Energy's procurement of an electric vehicle has reduced vehicle-based emissions by over 80%, and the next certification will have zero car-related, Scope 1, emissions.

The continued impact of the pandemic has resulted in the decrease of the Organisation's inventory, due to a subsequent decrease in site visits which in turn reduce utilisation of vehicles and any related food purchases. Additionally, working from home resulted in a net negative emission value given that staff have more operational control over their household emissions compared to the Council owned and operated building, and the reduction in staff-commute emissions.

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## 5.EMISSIONS SUMMARY

### Emissions over time

Tandem Energy's Organisation inventory has decreased, which can be attributed to green procurement and the replacement of the diesel vehicle with an Electric Vehicle. We anticipate Year 2 emissions to be lower further due to the procurement of 100% GreenPower by the office building owner and operator (Town of Gawler Council) which is anticipated to be enacted in the FY22-23 period.

Emissions since base year		Total tCO <sub>2</sub> -e
Base year/Year 1:	2020	10.04
Year 2:	2021	7.814

### Significant changes in emissions

The continual impacts of the global pandemic (natural disaster) have played a significant role in the change in total emissions. The organisation's Work-From-Home policy was enacted several times for the safety of the staff which increased the net reduction in the Work-From-Home calculator input towards the inventory. Additionally, by working from home, site visits and meetings with clients also reduced, which influenced expenditure on food and beverage industries.

The latest emission intensity factors (Scope 2 and 3) for electricity consumption in South Australia has been reduced from 0.52 kg CO<sub>2</sub>-e per kWh in CY20 to 0.37 kg CO<sub>2</sub>-e per kWh in CY21.

Organic growth over the reporting year has increased utilisation of accounting services.

Lastly, green procurement within the organisation reduced expenditure and emission generation towards telecommunications and IT, mailing, travel and waste.

Emission source name	Current year (tCO <sub>2</sub> -e)	Previous year (tCO <sub>2</sub> -e)	Detailed reason for change
<b>Total net electricity emissions (Market based)</b>	3.1	4.362	Change in emissions intensity in the grid
<b>Coffee and tea</b>	0.239	0.374	travel policy
<b>Food and beverage industries</b>	2.058	1.723	travel policy
<b>Computer and electrical components, hardware and accessories</b>	0.153	0.318	green procurement
<b>Telecommunications</b>	0.083	0.156	green procurement



<b>Paper (per ream)</b>	0	0.011	green procurement
<b>Mailing services: parcels, postal and courier</b>	0.001	0.007	green procurement
<b>Accounting services</b>	0.504	0.486	organic growth
<b>Diesel oil post-2004</b>	0.271	0	green procurement
<b>Diesel: medium car</b>	0	1.89	green procurement
<b>General waste (municipal waste)</b>	0.176	0.141	green procurement
<b>Food waste</b>	0.168	0.684	green procurement
<b>calculator - Result A Total</b>	0.35	0.236	natural disaster

## Use of Climate Active carbon neutral products and services

Tandem Energy uses Reflex 100% recycled and Climate Active paper for any printing.

## Organisation emissions summary

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

	Sum of Scope 1 (TCO2e)	Sum of Scope 2 (TCO2e)	Sum of Scope 3 (TCO2e)	Sum of Total Emissions (TCO2e)
Climate Active Carbon Neutral Products and Services	0.00	0.00	0.00	0.00
Electricity	0.00	3.10	0.00	3.10
Food	0.00	0.00	2.30	2.30
ICT services and equipment	0.00	0.00	0.24	0.24
Postage, courier and freight	0.00	0.00	0.00	0.00
Professional Services	0.00	0.00	0.50	0.50
Transport (Land and Sea)	0.26	0.00	0.01	0.27
Waste	0.00	0.00	0.34	0.34
Working from home	0.00	0.00	0.35	0.35
<b>Grand Total</b>	<b>0.26</b>	<b>3.10</b>	<b>3.74</b>	<b>7.1</b>

## Uplift factors

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

Reason for uplift factor	tCO <sub>2</sub> -e
Compulsory additional 5% for small organisations	0.355
An additional 5% uplift factor was applied to the whole carbon inventory to account for estimations conducted in the development of this inventory	0.355
<i>Total footprint to offset (uplift factors + net emissions)</i>	7.814

## 6. CARBON OFFSETS

### Offsets strategy

Offset purchasing strategy: In arrears		
1.	Total offsets previously forward purchased and banked for this report	Zero
2.	Total emissions liability to offset for this report	8 tonnes
3.	Net offset balance for this reporting period	8 tonnes
4.	Total offsets to be forward purchased to offset the next reporting period	Zero
5.	Total offsets required for this report	8 tonnes

### Co-benefits

To offset our organisation's carbon footprint, we purchased 100% of our offsets from the Biomass Energy Conservation Programme. This program has been developed to improve the quality of life experienced by Malawians, with the vast majority not having access to electricity and instead using wood-burning stoves to heat food.

Wood-burning stoves are extremely dangerous to the health of the user and their family, as soot from the combustion pollutes the household air. Globally, more than 50% of premature deaths among children under 5 are due to pneumonia caused by particulate matter inhaled from household air pollution.

A recent study in Malawi showed that switching from a three-stone fire to a Chitetezo Mbaula stove reduces the amount of particles emitted by 46% and carbon monoxide by 44%. A well-tuned stove can reduce firewood consumption by up to 80%. Between 1972 and 1992, the Malawi forest experienced a 57% decrease due to deforestation activity, so by reducing household dependency on wood for heat and cooking, it enables the forests to recover. The Chitetezo Mbaula stove also reduces each family's emissions by about 2 tCO<sub>2</sub>-e each year.

The Chitetezo Mbaula stove is hand made using local materials, fostering local ingenuity and self-reliance. Implementation is sub-contracted to locally owned businesses and social enterprises resulting in skills diversification along with job creation. The stove project provides income to over 2,000 people (mostly women in rural areas) to manufacture and promote smoke reducing cookstoves. These businesses are established and growing on a for-profit basis and projects are growing rapidly.

## Offsets summary

### Proof of cancellation of offset units

Offsets cancelled for Climate Active Carbon Neutral Certification										
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Eligible Quantity (tCO <sub>2</sub> -e)	Quantity used for previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period claim	Percentage of total (%)
Biomass Energy Conservation Programme	CER	CDM	18 May 2022	MW-5-1665958-2-2-0-10182 – MW-5-1665967-2-2-0-10182	CP2 (2013 or late)	10	0	2	8	100%
<b>Total offsets retired this report and used in this report</b>									8	
<b>Total offsets retired this report and banked for future reports</b>									2	
Type of offset units		Quantity (used for this reporting period claim)					Percentage of total			
Certified Emissions Reductions (CERs)		8					100%			

## 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

### Renewable Energy Certificate (REC) Summary



The following RECs have been surrendered to reduce electricity emissions under the market-based reporting method.

<b>1. Large-scale Generation certificates (LGCs)*</b>	0
<b>2. Other RECs</b>	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	Eligible units	Registry	Surrender date	Accreditation code (LGCs)	Certificate serial number	Generation year	Quantity (MWh)	Fuel source	Location
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Total LGCs surrendered this report and used in this report</i>							0		

# APPENDIX A: ADDITIONAL INFORMATION

	<p>United Nations Framework Convention on Climate Change</p>	<p>DATE: 18 MAY 2022 REFERENCE: VC23577/2022</p>
<p><b>VOLUNTARY CANCELLATION CERTIFICATE</b></p>	<p><b>Presented to</b> Tandem Energy</p> <p><b>Project</b> Biomass Energy Conservation Programme</p> <p><b>Reason for cancellation</b> I am offsetting greenhouse gas emissions for my company</p>	
	<p><b>Number of units cancelled</b></p> <p>Start serial number: MW-5-1665958-2-2-0-10182 End serial number: MW-5-1665967-2-2-0-10182</p>	<p><b>10 CERs</b> Equivalent to 10 tonne(s) of CO<sub>2</sub></p> <p>The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.</p>

## APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a location-based approach.

### Located-based method

The location-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.

### 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.

#### Market-based approach summary

Market-based approach	Activity data (kWh)	Emissions (kgCO <sub>2</sub> -e)	Renewable % of total
Behind the meter consumption of electricity generated	0	0	0%
<b>Total non-grid electricity</b>	<b>0</b>	<b>0</b>	<b>0%</b>
LGC Purchased and retired (kWh) (including PPAs & Precinct LGCs)	0	0	0%
GreenPower	0	0	0%
Jurisdictional renewables (LGCs retired)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	677	0	19%
Residual Electricity	2,972	2,956	0%
<b>Total grid electricity</b>	<b>3,649</b>	<b>2,956</b>	<b>19%</b>
<b>Total Electricity Consumed (grid + non grid)</b>	<b>3,649</b>	<b>2,956</b>	<b>19%</b>
Electricity renewables	677	0	
Residual Electricity	2,972	2,956	
<b>Exported on-site generated electricity</b>	<b>0</b>	<b>0</b>	
Emissions (kgCO <sub>2</sub> e)		2,956	

<b>Total renewables (grid and non-grid)</b>	<b>18.54%</b>
<b>Mandatory</b>	<b>18.54%</b>
<b>Voluntary</b>	<b>0.00%</b>
<b>Behind the meter</b>	<b>0.00%</b>
<b>Residual electricity emission footprint (tCO<sub>2</sub>-e)</b>	<b>3</b>

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

#### Location-based approach summary

Location-based approach	Activity data (kWh)	Emissions (kgCO <sub>2</sub> -e)
ACT	0	0
NSW	3,649	3,102
SA	0	0
Vic	0	0
Qld	0	0
NT	0	0
WA	0	0
Tas	0	0
<b>Grid electricity (scope 2 and 3)</b>	<b>3,649</b>	<b>3,102</b>
ACT	0	0
NSW	0	0
SA	0	0
Vic	0	0
Qld	0	0
NT	0	0
WA	0	0
Tas	0	0
<b>Non-grid electricity (behind the meter)</b>	<b>0</b>	<b>0</b>
<b>Total electricity consumed</b>	<b>3,649</b>	<b>3,102</b>
<b>Emission footprint (tCO<sub>2</sub>-e)</b>	<b>3</b>	

#### Climate Active carbon neutral electricity summary

Carbon neutral electricity offset by Climate Active product	Activity data (kWh)	Emissions (kgCO <sub>2</sub> -e)
NA	0	0

*Climate Active carbon neutral electricity is not considered renewable electricity. The emissions have been offset by another Climate Active carbon neutral product certification.*



## APPENDIX C: INSIDE EMISSIONS BOUNDARY

### Organisation non-quantified sources

The following sources 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	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
NA	NA	NA	NA	NA

## APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

### Organisation excluded sources

The below emission sources have been assessed as not relevant to an 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.

Emissions tested for relevance are detailed below against each of the five criteria. The five criteria are:

1. **Size** The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions
2. **Influence** The responsible entity has the potential to influence the reduction of emissions from a particular source.
3. **Risk** The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.
4. **Stakeholders** Key stakeholders deem the emissions from a particular source are relevant.
5. **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.

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

Emission sources tested for relevance	(1) Size	(2) Influence	(3) Risk	(4) Stakeholders	(5) Outsourcing	Included in boundary?
Purchased goods and services	NA	NA	NA	NA	NA	NA
Capital goods	NA	NA	NA	NA	NA	NA
Fuel and energy related activities	NA	NA	NA	NA	NA	NA
Upstream transportation and distribution	NA	NA	NA	NA	NA	NA
Waste generated in operations	NA	NA	NA	NA	NA	NA
Business travel	NA	NA	NA	NA	NA	NA
Employee commuting	NA	NA	NA	NA	NA	NA
Upstream leased assets	NA	NA	NA	NA	NA	NA

Downstream transportation and distribution	NA	NA	NA	NA	NA	NA
Processing of sold products	NA	NA	NA	NA	NA	NA
Use of sold products	NA	NA	NA	NA	NA	NA
End-of-life treatment of sold products	NA	NA	NA	NA	NA	NA
Downstream leased assets	NA	NA	NA	NA	NA	NA
Franchises	NA	NA	NA	NA	NA	NA
Investments	NA	NA	NA	NA	NA	NA



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