




PUBLIC DISCLOSURE STATEMENT

**TARONGA CONSERVATION SOCIETY
AUSTRALIA PTY LTD**

**ORGANISATION CERTIFICATION
FY2022–23**

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY	Taronga Conservation Society Australia Pty Ltd
REPORTING PERIOD	1 July 2022 – 30 June 2023 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>Jon Shaw Sustainability Manager 03/09/2024</p>



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

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Version August 2023.



1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	8,886.55 tCO ₂ -e
OFFSETS USED	100% ACCUs
RENEWABLE ELECTRICITY	81.35%
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	Date: 06/01/2021 Name: James Endean Organisation: Pangolin Associates Pty Ltd Next technical assessment due: FY2024

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2. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the financial year from 1 July 2022 to 30 June 2023 and covers the business operations of Taronga Conservation Society Australia (ABN - 41 733 619 876).

The operational boundary has been defined based on an operational control test, in accordance with the principles of the National Greenhouse and Energy Reporting Act 2007. This includes all operations which are controlled by the Taronga Conservation Society (Taronga), including: Taronga Zoo and Taronga Western Plains Zoo.

The boundary excludes the transport of visitors and guests, tenants, and contractors to and from facilities operated by Taronga.

The methods used for collating data, performing calculations and presenting the carbon account are in accordance with the following standards:

- Climate Active Standards
- 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 used 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 (CO₂), methane (CH₄), nitrous oxide (N₂O) and synthetic gases - hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). These have been expressed as carbon dioxide equivalents (CO₂-e) using relative global warming potentials (GWPs).

Organisation description

Taronga Conservation Society Australia (Taronga) (ABN - 41 733 619 876) is a statutory authority owned by the people of New South Wales and administered by the Department of Planning, Industry and Environment. Taronga is a not-for-profit conservation organisation working towards saving endangered wildlife from extinction. The organisation's activities span across the fields of conservation, research and environmental education.

Taronga operates Taronga Zoo in Sydney and Taronga Western Plains Zoo in Dubbo, and combined both zoos welcome almost 2 million guest each year.

Taronga has a deep commitment to conservation science. In Australia and internationally, Taronga works with universities, governments, and conservation partners to respond to challenges impacting wildlife and

people. Taronga has a proud tradition of delivering conservation education programs that increase knowledge and awareness and inspire students to become champions for wildlife.

Taronga sees first-hand the impacts of climate change and other human-induced threats to wildlife and this has spurred the organisation to take bold steps to reduce its environmental footprint.

Taronga's vision is a shared future for wildlife and people, and we recognise our important role in inspiring people, driving change and helping safeguard the future of the planet. For this reason, one of six strategic priorities in the Taronga 2021-2025 Strategic Plan is to lead environmental sustainability and climate change action.

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

- Accommodation and facilities
- Cleaning and chemicals
- Climate Active carbon neutral products and services
- Construction Materials and Services
- Electricity
- Food
- Horticulture and Agriculture
- ICT services and equipment
- Machinery and vehicles
- Office equipment and supplies
- Products
- Refrigerants
- Roads and landscape
- Stationary energy (gaseous fuels)
- Stationary energy (liquid fuels)
- Transport (air)
- Transport (Land and Sea)
- Waste
- Water
- Working from home

Non-quantified

- Wastewater treatment plant
- Vet supplies

Optionally included

N/A

Outside emission boundary

Excluded

- Visitor, Tenant, and contractor travel
- Animal transport
- Animal emissions

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

In its 2021-2025 Sustainability Strategy, Taronga publicly committed to net zero emissions by 2030 with a 70% reduction in absolute emissions based on FY18/19 levels. This is in line with the Paris Agreement and SBTi. The Taronga Sustainability Strategy 2021-2025 can be found via this link:

<https://taronga.org.au/conservation-and-science/sustainability>

Taronga aims to achieve 70% reduction in absolute emissions by embarking on an ambitious net zero pathway, including measures such as:

- Procuring 100% of electricity from renewable sources before 2030
- Zero net increase in water consumption (excluding recycled or rainwater) from 2025
- 90% diversion of operational waste from landfill.

Taronga also has a policy that all new buildings, precincts and exhibits over \$25 million are Infrastructure Sustainability Council certified, or Green Star certified- targeting 5 star rating or higher. These schemes have robust requirements related to emissions reductions, therefore will drive implementation of net zero initiatives in new capital developments.

In early 2022, NSW Treasury supported a Net Zero Pathway proposal for Taronga which was delivered by a specialist consultancy and which included energy audits for both zoo sites. Taronga is likely to implement the 'medium ambition pathway' to achieve its net zero emissions target by 2030.

This will include investigating opportunities such as:

- Reducing gas consumption by switching to electric and potential 'no new gas' policy
- Transition to electric vehicles where possible, including scoping installation of electric vehicle charging infrastructure
- Programs to support lower emissions transport for employee commuting
- Further reduction of emissions associated with food & beverage
- Further reduction of emissions associated with animal feed.

In late 2022 Taronga received early findings from a Solar Feasibility Study conducted by specialist consultants and supported by NSW Treasury. The final report will provide recommendations for solar PV opportunities which will be evaluated based on payback period and available funding.

Emissions reduction actions

Taronga Zoo and Taronga Western Plains Zoo have become the first zoos in NSW to be powered by 100% renewable electricity. Taronga had set its target to be powered by 100% renewable electricity before

2030 – and the switch means the not-for-profit organisation achieved its goal seven years early. By switching to Red Energy as its electricity provider, Taronga is directly supporting clean electricity generation from a solar farm that is local, on Wiradjuri Country near Taronga Western Plains Zoo in Dubbo. By doing so, Taronga and Red Energy are directly supporting the transition to clean energy in NSW.

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:	2017–18	12,704.10	
Year 2:	2018–19	13,789.40	
Year 3:	2019–20	13,425.46	
Year 4:	2020–21	15,032.23	
Year 5:	2021–22	13,634.49	
Year 6:	2022–23	8,886.55	

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
Food & catering	1,418.20	1,904.64	Increased sales in cafes and restaurants post covid.
Electricity (market-based method, scope 2)	6,590.31	2,092.64	Taronga purchased GreenPower and entered a PPA agreement through Red Energy part way through the 2022/23 financial year.

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

Certified brand name	Product/Service/Building/Precinct used
Pangolin Associates	Consulting Services
Winc	Paper

Emissions summary

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

Emission category	Sum of scope 1 (tCO ₂ -e)	Sum of scope 2 (tCO ₂ -e)	Sum of scope 3 (tCO ₂ -e)	Sum of total emissions (t CO ₂ -e)
Accommodation and facilities	0.00	0.00	19.14	19.14
Cleaning and chemicals	0.00	0.00	24.28	24.28
Climate Active carbon neutral products and services	0.00	0.00	0.00	0.00
Construction Materials and Services	0.00	0.00	619.33	619.33
Electricity	0.00	2092.64	276.97	2369.61
Food	0.00	0.00	1937.40	1937.40
Horticulture and Agriculture	0.00	0.00	958.08	958.08
ICT services and equipment	0.00	0.00	8.97	8.97
Machinery and vehicles	0.00	0.00	4.31	4.31
Office equipment and supplies	0.00	0.00	119.10	119.10
Products	0.00	0.00	27.57	27.57
Refrigerants	282.82	0.00	0.00	282.82
Stationary energy (gaseous fuels)	387.13	0.00	98.42	485.55
Stationary energy (liquid fuels)	99.91	0.00	33.30	133.21
Transport (air)	0.00	0.00	246.13	246.13
Transport (Land and Sea)	246.60	0.00	768.03	1014.63
Waste	0.00	0.00	358.92	358.92
Water	0.00	0.00	263.42	263.42
Working from home	0.00	0.00	14.07	14.07
Total emissions	1016.46	2092.64	5777.45	8886.55

Uplift factors

N/A

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is 8,887 t CO₂-e. The total number of eligible offsets used in this report is 8,887. Of the total eligible offsets used, zero were previously banked and 8,887 were newly purchased and retired. Zero are remaining and banked for future use.

Co-benefits

N/A

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 (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 (%)	
Jawoyn Fire 2 – ERF102021	ACCU	ANREU	2 April 2024	8,330,479,160 - 8,330,485,680	2021-22	0	6,521	0	0	6,521	73%	
Jawoyn Fire 2 – ERF102021	ACCU	ANREU	3 Sep 24	8,330,485,681 - 8,330,488,046	2021-22	0	2,366	0	0	2,366	27%	
Total eligible offsets retired and used for this report										8,887		
Total eligible offsets retired this report and banked for use in future reports										0		

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCU)	8,887	100%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

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Australian Government
Clean Energy Regulator



2 April 2024

VC202324-00425

To whom it may concern,

Voluntary cancellation of units in ANREU

This letter is confirmation of the voluntary cancellation of units in the Australian National Registry of Emissions Units (ANREU) by ANREU account holder, Climate Friendly Pty Ltd (account number AU-2155).

The details of the cancellation are as follows:

Date of transaction	2 April 2024
Transaction ID	AU33021
Type of units	KACCU
Total Number of units	6,521
Serial number range	8,330,479,160 - 8,330,485,680
ERF Project	Jawoyn Fire 2 – ERF102021
Vintage	2021-22
Transaction comment	The ACCUs were retired from Jawoyn Fire 2 Project on behalf of Taronga Conservation Society Australia for Climate Active certification corresponding to the period FY2022/23.

Details of all voluntary cancellations in the ANREU are published on the Clean Energy Regulator's website, <http://www.cleanenergyregulator.gov.au/OSR/ANREU/Data-and-information>.

If you require additional information about the above transaction, please email CER-RegistryContact@cer.gov.au

Yours sincerely,

David O'Toole
NGER and Safeguard Branch
Clean Energy Regulator
registry-contact@cer.gov.au



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Australian Government
Clean Energy Regulator



6 September 2024

VC202425-00554

To whom it may concern,

Voluntary cancellation of units in ANREU

This letter is confirmation of the voluntary cancellation of units in the Australian National Registry of Emissions Units (ANREU) by ANREU account holder, TARONGA CONSERVATION SOCIETY AUSTRALIA (account number AU-3614).

The details of the cancellation are as follows:

Date of transaction	3 September 2024
Transaction ID	AU35734
Type of units	KACCU
Total Number of units	2,366
Serial number range	8,330,485,681 - 8,330,488,046
ERF Project	Jawoyn Fire 2 - ERF102021
Vintage	2021-22
Transaction comment	The ACCUs were retired from Jawoyn Fire 2 project by Taronga Conservation Society Australia for Climate Active Certification relating to the period FY2022/23

Details of all voluntary cancellations in the ANREU are published on the Clean Energy Regulator's website, [Voluntary cancellations register | Clean Energy Regulator \(cer.gov.au\)](#).

If you require additional information about the above transaction, please email CER-RegistryContact@cer.gov.au

Yours sincerely,

David O'Toole
ANREU and International
NGER and Safeguard Branch
Scheme Operations Division



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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	732,998	0	6%
Total non-grid electricity	732,998	0	6%
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	7,728,499	0	58%
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)	2,363,838	0	18%
Residual Electricity	2,481,267	2,369,610	0%
Total renewable electricity (grid + non grid)	10,825,335	0	81%
Total grid electricity	12,573,604	2,369,610	76%
Total electricity (grid + non grid)	13,306,603	2,369,610	81%
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	2,481,267	2,369,610	
Scope 2	2,191,249	2,092,643	
Scope 3 (includes T&D emissions from consumption under operational control)	290,018	276,967	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	

Total renewables (grid and non-grid)	81.35%
Mandatory	17.76%
Voluntary	58.08%
Behind the meter	5.51%
Residual scope 2 emissions (t CO₂-e)	2,092.64
Residual scope 3 emissions (t CO₂-e)	276.97
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	2,092.64
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	276.97
Total emissions liability (t CO₂-e)	2,369.61

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 (kg CO ₂ -e)	Scope 3 Emissions (kg CO ₂ -e)	(kWh)	Scope 3 Emissions (kg CO ₂ -e)
ACT	0	0	0	0	0	0
NSW	12,573,604	12,573,604	9,178,731	754,416	0	0
SA	0	0	0	0	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)	12,573,604	12,573,604	9,178,731	754,416	0	0
ACT	0	0	0	0		
NSW	732,998	732,998	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)	732,998	732,998	0	0		
Total electricity (grid + non grid)	13,306,603					

Residual scope 2 emissions (t CO₂-e)	9,178.73
Residual scope 3 emissions (t CO₂-e)	754.42
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	9,178.73
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	754.42
Total emissions liability	9,933.15

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
<i>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.</i>		

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
<i>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.</i>		

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
Wastewater treatment plant	Immaterial
Vet supplies	Immaterial

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

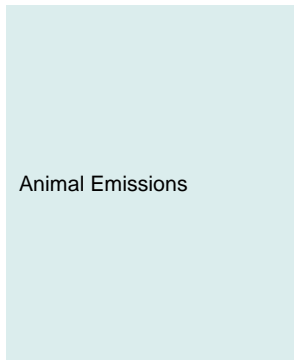
The below emission sources have been assessed as not relevant to this organisation's operations and are outside of its emissions boundary. These emissions are not part of the carbon neutral claim. Emission sources considered for relevance must be included within the certification boundary if they meet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

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

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.

Excluded emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Visitor, tenant, and contractor travel	Y	N	N	N	N	<p>Size: The emissions are likely to be greater than 5% of total organisation emissions.</p> <p>Influence: We do not have the potential to influence the emissions from this source.</p> <p>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.</p> <p>Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p>Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p>
Animal Transport	N	N	N	N	N	<p>Size: The emissions are likely to be less than 1% of total organisation emissions.</p> <p>Influence: We do not have the potential to influence the emissions from this source.</p> <p>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.</p> <p>Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our business.</p> <p>Outsourcing: We have not previously undertaken this activity within our emissions boundary and comparable organisations do not typically undertake this activity within their boundary.</p>



Animal Emissions

Y N N N N

Size: The emissions are likely to be greater than 5% of total organisation emissions.

Influence: We do not have the potential to 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 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

