PUBLIC DISCLOSURE STATEMENT

EARTH SANCTUARY

ORGANISATION CERTIFICATION
CY2022

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	Milikom Pty Ltd as trustee for the Falzon Management Trust, trading as Earth Sanctuary World Nature Centre
REPORTING PERIOD	1 January 2022 – 31 December 2022
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.* *Tom Falzon* Tom Falzon Director 14/6/23

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

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	189.231 tCO_2-e
OFFSETS USED	100% ACCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: Earth Sanctuary
TECHNICAL ASSESSMENT	14/6/23 Daniel Harper Cool Planet Next technical assessment due: CY 2025
THIRD PARTY VALIDATION	Type 1 Date 23/6/23 Katherine Simmons, Krea Consulting

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2. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the Calendar year,1st January 2022 to 31st December 2022 and covers the Australian business operations of Milikom Pty Ltd acting as trustee for the Falzon Management Unit Trust, trading as Earth Sanctuary World Nature Centre ABN 88 917 962 421

It complies with the Climate Active Standard for Carbon Neutral Organisations and is based on the operational control approach to the measurement of greenhouse gases.
The certification does not include the emissions associated with visitors traveling to and from the centre.

Organisation description

Established in 1999, Earth Sanctuary is an award winning outback venue, 15 minutes from Alice Springs. Overlooking the spectacular East MacDonnell Ranges, Earth Sanctuary is a leader in education and sustainable tourism.

Earth Sanctuary is located in an area free from light and atmospheric pollution, which can hamper night sky viewing, allowing Earth Sanctuary the opportunity to deliver unique astronomy-based experiences.

In addition to astronomy and education tours, Earth Sanctuary delivers bespoke functions and events, tailored to suit customer needs, as well as standard dinner and show experience aimed at the domestic and international touring market.

Earth Sanctuary is located at Colonel Rose Dr, Connellan, NT 0870.

3. EMISSIONS BOUNDARY

This is a small organisation certification, which uses the standard Climate Active small organisation 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

- Stationary energy and fuels
- Electricity
- Accommodation
- Cleaning and chemicals
- Food
- ICT services and equipment
- Professional services
- Office equipment and supplies
- Postage, courier and freight
- Refrigerants
- Transport (air)
- Transport (land and sea)
- Waste
- Water

Non-quantified
N/A

Optionally included
N/A

Outside emission boundary

Excluded
Emissions associated with visitors travel to and from the centre.

4.EMISSIONS REDUCTIONS

Emissions reduction strategy

Earth Sanctuary commits to reduce scope 1, 2 and 3 emissions by 50% by 2027, compared to a 2022 baseline. This will include the following actions being implemented within the next 12 months:

Scope 2

- Upgrade and consolidate fridge and freezer units.
- Upgrade incandescent lights to LEDs
- Implement improved monitoring systems for batteries and solar production.

Scope 3

Waste and recycling

- Introduce composting system to eliminate food waste from landfill.
- Encourage staff to take food scraps home for chickens.
- Monitor amounts of food waste generated through end of shift procedures for staff.
- Reduce the amount of red meat purchased and served.
- Educate visitors of the environmental impact of red meat to encourage less carbon intensive food options.
- Develop a sustainable food policy to encourage the use of low carbon, locally sourced and healthy options.
- Monitor serving sizes for visitors to reduce plate waste.
- Give left over food to staff.
- Continue recycling and making purchasing decisions that reduce packaging and un-recyclable elements.

Education

- Develop information packs that help visitors reduce their carbon emissions and environmental impact.
- Give visitors a buy in option to offset emissions associated with their visit.
- Embed carbon emission data and carbon neutrality journey in visitor experience.
- Develop a sustainability strategy to greater understand and reduce environmental impacts of Earth Sanctuary.
- Explore potential tree planting project with visitors.

5.EMISSIONS SUMMARY

Emissions summary

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

Emission category	Sum of Scope 1 (t CO2-e)	Sum of Scope 2 (t CO2-e)	Sum of Scope 3 (t CO2-e)	Sum of Total Emissions (t CO2-e)
Accommodation and facilities	0.00	0.00	0.12	0.12
Cleaning and Chemicals	0.00	0.00	2.05	2.05
Electricity	0.00	7.37	0.96	8.33
Food	0.00	0.00	116.85	116.85
ICT services and equipment	0.00	0.00	1.90	1.90
Office equipment & supplies	0.00	0.00	0.29	0.29
Postage, courier and freight	0.00	0.00	6.14	6.14
Professional Services	0.00	0.00	3.25	3.25
Refrigerants	5.07	0.00	0.00	5.07
Stationary Energy (liquid fuels)	2.23	0.00	0.74	2.97
Transport (Air)	0.00	0.00	7.39	7.39
Transport (Land and Sea)	11.11	0.00	2.80	13.91
Waste	0.00	0.00	10.49	10.49
Water	0.00	0.00	1.46	1.46
Total	**18.42**	**7.37**	**154.43**	**180.22**

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.

	tCO_2-e
mandatory 5% uplift for small organisations	9.011
Total of all uplift factors	9.011
Total emissions footprint to offset *(total emissions from summary table + total of all uplift factors)*	**189.231**

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is 190t CO_2-e. The total number of eligible offsets used in this report is 190. Of the total eligible offsets used, 0 were previously banked and 190 were newly purchased and retired. 0 are remaining and have been banked for future use.

Co-benefits

Moombidary Forest Regeneration Project

This project establishes permanent native forests through assisted regeneration from in-situ seed sources (including rootstock and lignotubers) on land that was cleared of vegetation and where regrowth was suppressed for at least 10 years prior to the project having commenced.

Merepah Fire Project

Merepah Fire Project is located on Merepah Station, a pastoral lease west of Coen, Queensland, and started in 2013. The property lease is held by the Indigenous Land and Sea Corporation (ILSC), the ILSC is transitioning the lease over the next 5 to 10 years to Moompa Awu Aboriginal Corporation (MAAC), which represents the Traditional Owners of the property. The Merepah fire project is a combined effort between MAAC and ILSC including planned aerial burning with strategic ground burning and positioning of fire breaks, in conjunction with back burning and fire suppression when required.

The fire project is overseen by ILSC's Carbon & Environment team, and operations are undertaken by ILSC's Indigenous Station staff and MAAC with aerial burning support from Bush Heritage Australia's Fire Coordinator, Richard Geddes. Traditional Owners (TOs) have been working on the station and becoming increasingly involved in the fire project over several years, this includes conducting firebreaks, road maintenance and aerial burning, as well as being involved in the cattle operations and day-to-day station operations. There are multiple benefits from this project: environmental, saving the grass for the cattle; cultural, preserving traditions; community involvement, the elders are happy with the burning project on the property and were involved by coming along to family meetings and culture camp (this was the health country plan meeting which involved 50 family members attending). There are two young family members working on the property full time, the others have been engaged in casual short-term contacts working on the station and involved in the family meeting. Once MAAC are fully managing the project, they aim to spend carbon trading revenue on: i) fire operations (helicopter hire, fuel, equipment etc.), ii) station equipment (tools, vehicles etc.) and iii) to set up a nature and culture ranger base and tourism centre on the property.

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 (%)**
Moombidary Forest Regeneration Project	KACCU	ANREU	5 June 2023	8,343,058,830 – 8,343,059,005	2021-22	0	176	0	0	176	92.63%
Merepah Fire Project	KACCU	ANREU	5 June 2023	3,803,862,138 – 3,803,862,147	2020-21	0	10	0	0	10	5.27%
Moombidary Forest Regeneration Project	KACCU	ANREU	21 June 2023	3,337,292,072 – 3,337,292,075	2021-22	0	4	0	0	4	2.1%
									Total eligible offsets retired and used for this report	190	
									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 (ACCUs)	190	100%

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-based approach**.

Market Based Approach Summary

Market Based Approach	Activity Data (kWh)	Emissions (kg CO2-e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	1,598	0	10%
Total non-grid electricity	**1,598**	**0**	**10%**
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)	2,544	0	17%
Residual Electricity	11,106	10,606	0%
Total renewable electricity (grid + non grid)	**4,143**	**0**	**27%**
Total grid electricity	**13,650**	**10,606**	**17%**
Total electricity (grid + non grid)	**15,248**	**10,606**	**27%**
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	**11,106**	**10,606**	
Scope 2	9,807	9,366	
Scope 3 (includes T&D emissions from consumption under operational control)	1,298	1,240	
Residual electricity consumption not under operational control	**0**	**0**	
Scope 3	0	0	

Total renewables (grid and non-grid)	**27.17%**
Mandatory	**16.69%**
Voluntary	**0.00%**
Behind the meter	**10.48%**
Residual scope 2 emissions (t CO2-e)	**9.37**
Residual scope 3 emissions (t CO2-e)	**1.24**
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	**9.37**
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	**1.24**
Total emissions liability (t CO2-e)	**10.61**

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 CO2-e)**	**Scope 3 Emissions (kg CO2-e)**	**(kWh)**	**Scope 3 Emissions (kg CO2-e)**
ACT	0	0	0	0	0	0
NSW	0	0	0	0	0	0
SA	0	0	0	0	0	0
VIC	0	0	0	0	0	0
QLD	0	0	0	0	0	0
NT	13,650	13,650	7,371	955	0	0
WA	0	0	0	0	0	0
TAS	0	0	0	0	0	0
Grid electricity (scope 2 and 3)	**13,650**	**13,650**	**7,371**	**955**	**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	1,598	1,598	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
Non-grid electricity (behind the meter)	**1,598**	**1,598**	**0**	**0**		
Total electricity (grid + non grid)	**15,248**					

Residual scope 2 emissions (t CO2-e)	**7.37**
Residual scope 3 emissions (t CO2-e)	**0.96**
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	**7.37**
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	**0.96**
Total emissions liability (t CO2-e)	**8.33**

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 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

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
N/A	

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.

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Emissions associated with visitors travel to and from the centre.	Y	N	N	N	N	The travel emissions associated with people visiting Earth Sanctuary are outside the organisations influence and are deemed outside the emissions boundary by stakeholders. There is no outsourcing and there is no risk associated with the travel emissions.

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