PUBLIC DISCLOSURE STATEMENT

ZOOS VICTORIA

ORGANISATION CERTIFICATION
FY2020-21

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	Zoos Victoria
REPORTING PERIOD	financial year 1 July 2020 – 30 June 2021
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.* 
	Kiam Yoong Senior Manager Environmental Sustainability 29/10/2021

Australian Government
Department of Industry, Science, Energy and Resources

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

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	7,964.78 CO_2-e
OFFSETS BOUGHT	100% VCUs
RENEWABLE ELECTRICITY	Total renewables 41.61%
TECHNICAL ASSESSMENT	Date: 08/01/2020 Ndevr Environmental Pty Ltd Next technical assessment due: October 2022

Contents

2.CARBON NEUTRAL INFORMATION

Description of certification

Zoos Victoria (ABN: 96-913- 959-053) defines its organisational boundary in accordance with its properties (Melbourne Zoo, Healesville Sanctuary and Werribee Open Range Zoo), including:

- the controlling organisation – Zoos Victoria located at Melbourne Zoo
- contractors – that operate within the Zoos Victoria boundary and using the zoo's resources

The Zoos Victoria emissions boundary definition includes all scope 1 & 2 emissions and scope 3 emissions. Scope 3 emissions are included on the basis of materiality and measurability.

This inventory has been prepared based on the following standards:

- Climate Active Standard for organisations
- GHG Protocol – Corporate Standard (WBCSD and WRI, 2004)
- National Greenhouse and Energy Reporting (Measurement) Determination 2008
- ISO 14064.1:2006

"We believe in minimising our carbon footprint to help save the planet. That's why Zoos Victoria was the world's first certified carbon-neutral zoo"

For electricity emissions the 'market-based approach' is selected to minimise double accounting and transparency of renewable energy sources. This is based on guidance from international best-practice standards including the Greenhouse Gas Protocol and ISO 14064.

Greenhouse gasses calculated in this inventory includes CO2, CH4, N2O and HFCs. All greenhouse gas calculations are converted to tonnes CO2-e using various emissions factors.

Organisation description

Zoos Victoria is a not-for-profit conservation organisation aimed at saving endangered wildlife from extinction. Zoos Victoria operates Healesville Sanctuary, Werribee Open Range Zoo and Melbourne Zoo and in 2019-20 welcomed 1.96 million visitors. Zoos Victoria is dedicated to connecting these visitors to wildlife and providing them with actions they can take to help save species in the wild. Zoos Victoria sees first-hand the impact of climate change and other human-induced threats to wildlife and this has spurred the organisation to take great lengths to decrease its environmental footprint.

As a voice for wildlife, Zoos Victoria considers any impact or threat to species as firmly within the scope of

our purpose and our work. Climate change is claimed to be the most significant and immediate threat to the survival of people, habitats and wildlife globally. Zoos Victoria supports the United Nation's Intergovernmental Panel on Climate Change (IPCC) and the urgent call to slow global warming through achieving net zero CO2 emissions, along with strong reductions in other greenhouse gas emissions. As the first certified carbon neutral zoo in the world, we are doing everything we can to tackle this threat. Our carbon reduction measures include a renewable energy target of 100% by 1st July 2021, a zero waste to landfill program, resource efficiency projects and an Environmental, Social and Governance Procurement program. It is our duty to wildlife to call out climate change as a critical threat to the survival of all species, and one which must be addressed as a priority so we can secure a future where wildlife, the environment and people thrive together.

3.EMISSIONS BOUNDARY

Inside the emissions boundary

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

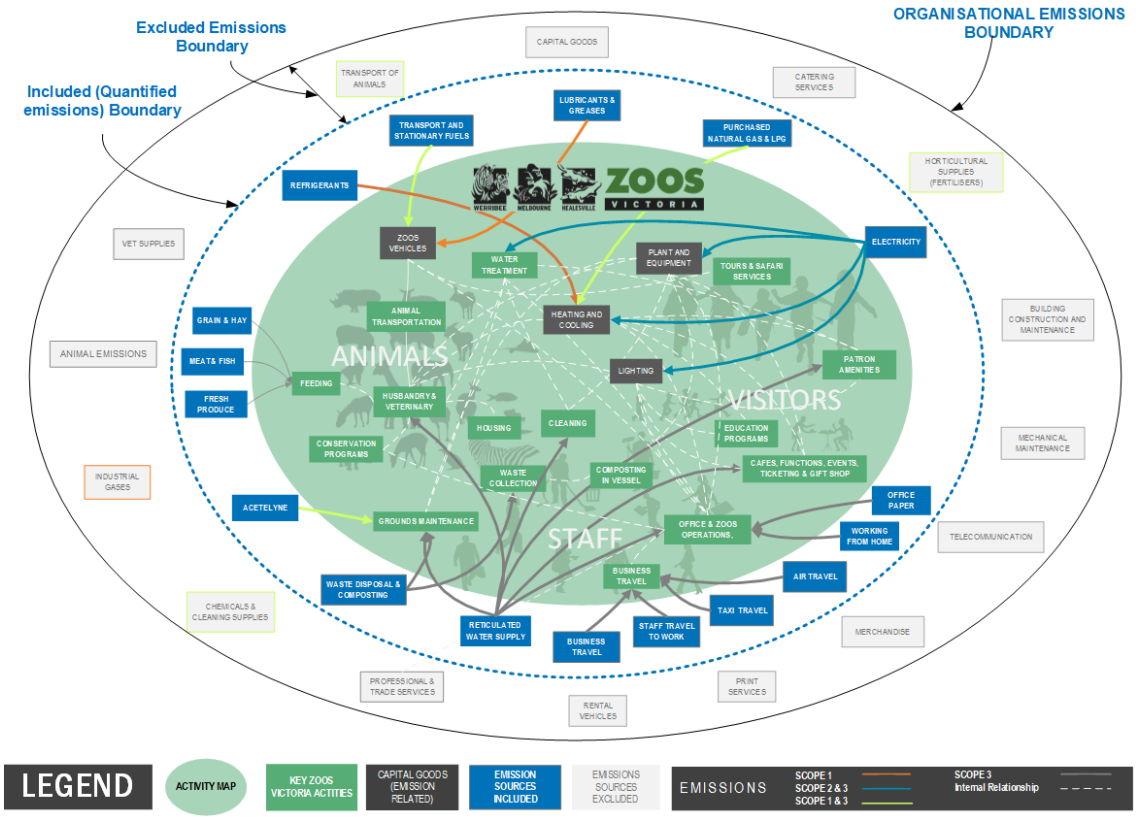
Quantified emissions have been assessed as relevant and are quantified in the carbon inventory. This may include emissions that are not identified as arising due to the operations of the certified entity, however are **optionally included**.

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 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.



Inside emissions boundary

Quantified

Fuel for vehicles

Refrigerant losss

Natural gas

Liquified petroleum gas

Acetylene

Organics waste composting

Greases and lubricants

Electricity

Municipal and Construction & Demolition Waste

Air travel

Business accommodation

Taxi

Office Paper

Potable Water

Freight

Staff commute to work

Purchased Animal Food

Staff Working from Home

Non-quantified

N/A

Outside emission boundary

Excluded

Transport of Animals

Rental vehicles

Telecommunications

Chemicals and Cleaning Supplies

Vet Supplies

Animal Emissions

Mechanical Maintenance

Industrial gasses

Horticulture Supplies

Professional & Trade Services

Print Services

Building Construction

Catering Services

Merchandise

Capital Goods

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

Zoos Victoria uses the ISO 14001:2015 Environmental Management System (EMS) to manage its environmental performance and minimise environmental impacts including its carbon emissions. Zoos Victoria has an Environmental Policy and plans that assist in guiding the organisation towards its environmental goals, which includes:

- Maintaining carbon neutrality.
- Investments in projects such as resource efficiency, waste management and on-site renewable energy projects through our Zoos Victoria Environmental Sustainability Prospectus.
- Having a Zero Waste to Landfill program with a target of 90% diversion rate. Current diversion rate is 89%. Emissions reduction from this initiative (scope 3) accounts for 20% reduction (2,400 tonnes CO2e/yr) from base year.
- A target of 100% renewable energy by June 2021. In 2020-21, 675kW of on-site solar PV was installed across our three zoos reducing scope 2 and 3 emissions by 5% from baseline year or 632 tonnes CO2e/yr. Our PPA for electricity and LGCs from the Crowlands Wind farm for Healesville Sanctuary reduces scope 2 and 3 emissions by 9% from baseline or 1,055 tonnes CO2e/yr. From 1st July 2021 Zoos Victoria is 100% powered by renewables with the addition of GreenPower for Melbourne Zoo and Werribee Open Range Zoo. This GreenPower will further reduce Zoos Victoria's emissions (scope 2 and 3) by 36% or 4,379 tonnes CO2e/yr.
- Having an Environmental, Social and Governance Procurement Framework to progress sustainable procurement considering life cycle impacts (including carbon) from services and products we use.
- Encouraging staff and contractors to improve our overall environmental performance by providing training and awareness.
- Maintaining our water recycling program at Melbourne Zoo, recycling 100ML of potable water per year to Class A recycled water for reuse in irrigation, refilling water bodies and cleaning exhibits.

Emissions reduction actions

Summary of emissions reduction actions:

- Contracted GreenPower for Melbourne Zoo and Werribee Open Range Zoo in June 2021. From 1st July 2021, Zoos Victoria is powered by 100% renewable electricity. This is from a combination of the Greenpower, together with 675 kW of onsite solar PV and a PPA for renewable energy for Healesville Sanctuary.

- Approved an Environmental, Social and Governance (ESG) Procurement Framework to reduce life-cycle impacts (including emissions) from products and services we procure.

- Continuous improvement through our certified ISO14001:2015 Environmental Management System which includes management of programs such as the Zero Waste to landfill and water efficiency and recycling programs.

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year		
		Total tCO_2-e
Base year:	2011-12	14,913.8
Year 1:	2012-13	14,730.8
Year 2:	2013-14	14,803.1
Year 3:	2014-15	14,560.3
Year 4:	2015-16	14,783.3
Year 5:	2016-17	14,306.5
Year 6:	2017-18	14,646.9
Year 7:	2018-19	12,245.3
Year 8:	2019-20	8,515.8
Year 9:	2020-21	7,964.8

Significant changes in emissions

Emission source name	Current year (tCO_2-e and/ or activity data)	Previous year (tCO_2-e and/ or activity data)	Detailed reason for change
Business Accommodation	0	39.19	Travel restrictions due to COVID19
Air Travel	0.7	175.44	Travel restrictions due to COVID19
LPG consumption	34.55	4.48	Increase off-grid heating for animal husbandry.
Potable Water	392.18	131.84	Actual consumption (liters) increased by 7% due to increased demand in horticulture, and animal husbandry.
General Waste	356.62	346.55	Decrease in general waste tonnage is a result of COVID19 restrictions. The increase in emissions is due to emissions factor

			increase.
Natural Gas	639.65	712.21	Reduction due to reduced demand for animal husbandry.
Acetylene	0.05	0.01	Increase due to increased maintenance works.
Greases and Lubricants	0.32	0.29	Increase due to increased vehicle fuel use.
Office Paper	3.53	2.00	Increase due to unavailable carbon neutral paper.
Taxi	0.06	1.10	Decrease due to COVID19 restrictions.
Employee commute to and from work	494.22	738.40	Decrease due to COVID19 restrictions.
Employee Working from Home	126.80	0	Added new inventory due to extended stay at home orders due to COVID19
Animal Food	986.99	1,308.62	Change due to animal husbandry requirements.

Use of Climate Active carbon neutral products and services

None

Organisation emissions summary

The electricity summary is available in the 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 (tCO_2-e)
Air Transport (km)	-	-	0.70	0.70
Composting on Site	56.20	-	-	56.20
Electricity	-	4,378.71	-	4,378.71
Food	-	-	841.26	841.26
Horticulture and Agriculture	-	-	145.72	145.72
Land and Sea Transport (fuel)	360.98	-	18.52	379.50
Land and Sea Transport (km)	-	-	494.28	494.28
Office equipment & supplies	-	-	3.53	3.53
Refrigerants	-	-	114.69	114.69
Stationary Energy	626.49	-	48.08	674.57
Waste	-	-	356.62	356.62
Water	-	-	392.18	392.18
Working from home	-	-	126.80	126.80
Total	**1043.68**	**4378.71**	**2542.39**	**7964.78**

6.CARBON OFFSETS

Offsets strategy

Offset purchasing strategy: In arrears		
1.	Total offsets previously forward purchased and banked for this report	3,936
2.	Total emissions liability to offset for this report	7,965
3.	Net offset balance for this reporting period	4,029
4.	Total offsets to be forward purchased to offset the next reporting period	3,471
5.	Total offsets required for this report	7,500

Co-benefits

The Kasigau Corridor REDD Project - Phase II: The Community Ranches - Kenya

This project builds on Wildlife Works' first REDD project (Phase I, Rukinga Ranch) which has been protecting forests, flora and fauna since 2006. The aim of this new, larger project is to bring the benefits of direct carbon financing to surrounding communities, while simultaneously addressing alternative livelihoods and protecting vital flora and fauna. Human-wildlife conflict has been a problem in the past, as local agents are directly reliant on the environment as a means for subsistence. This Phase II project directly addresses such sources of conflict in a holistic, sustainable approach, and on a large scale.

Rimba Raya Biodiversity Project

The project aims to protect and preserve 64,977ha of tropical lowland peat swamp forests; home of the endangered Borneo Orang-utan and other RED listed species. These forests are one of the most highly endangered ecosystems in the world. The Rimba Raya project also provides alternative income streams through capacity building, investments in micro-finance, programs that provide necessities and access to a conservation model that does not put the developing world’s need for economic growth at odds with the desire to protect this fragile ecosystem.

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_2-e)**	**Quantity used for previous reporting periods**	**Quantity banked for future reporting periods**	**Quantity used for this reporting period claim**	**Percentage of total (%)**
Kariba Forest Protection - Zimbabwe	VCU	VERRA	06 Jan 2020	5849-264225372-264231018-VCU-006-APX-ZW-14-902-01012014-30062014-1	2014	5,647	1,711	0	3,936	49.4%
Rimba Raya Biodiversity Reserve Project	VCU	VERRA	26 Oct 2021	7627-414485938-414490437-VCU-016-MER-ID-14-674-01072014-31122014-1	2014	4,500	0	3,471	1,029	12.9%
Kariba Forest Protection - Zimbabwe	VCU	VERRA	16 Oct 2021	9068-65917326-65920325-VCS-VCU-352-VER-ZW-14-902-01012016-30062016-1	2016	3,000	0	0	3,000	37.7%
Total offsets retired this report and used in this report									7,965	
Total offsets retired this report and banked for future reports								3,471		

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Verified Carbon Units (VCUs)	7,965	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.

1. Large-scale Generation certificates (LGCs)*	1,076
2. Other RECs	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
Crowlands Wind Farm	LGC	REC Registry	2020	WD00VC32	228412 - 228671	2020	260	Wind	Victoria, Australia
Crowlands Wind Farm	LGC	REC Registry	2020	WD00VC32	141508 - 141562	2020	55	Wind	Victoria, Australia
Crowlands Wind Farm	LGC	REC Registry	2020	WD00VC32	148914 - 149133	2020	220	Wind	Victoria, Australia
Crowlands Wind Farm	LGC	REC Registry	2021	WD00VC32	42782 – 43036	2021	255	Wind	Victoria, Australia
Crowlands Wind Farm	LGC	REC Registry	2021	WD00VC32	103267 - 103552	2021	286	Wind	Victoria, Australia
					Total LGCs surrendered this report and used in this report		1,076		

APPENDIX A: ADDITIONAL INFORMATION

N/A

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a market-based approach.

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.

Market Based Approach Summary

Market Based Approach	Activity Data (kWh)	Emissions (kgCO2e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	645,113	0	9%
Total non-grid electricity	**645,113**	**0**	**9%**
LGC Purchased and retired (kWh) (including PPAs & Precinct LGCs)	1,076,450	0	15%
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)	1,212,006	0	17%
Residual Electricity	4,115,804	4,416,589	0%
Total grid electricity	**6,404,260**	**4,416,589**	**32%**
Total Electricity Consumed (grid + non grid)	**7,049,373**	**4,416,589**	**42%**
Electricity renewables	2,933,569	0	
Residual Electricity	4,115,804	4,416,589	
Exported on-site generated electricity	**48,562**	**-37,878**	
Emission Footprint (kgCO2e)		4,378,711	

Total renewables (grid and non-grid)	**41.61%**
Mandatory	**17.19%**
Voluntary	**15.27%**
Behind the meter	**9.15%**
Residual Electricity Emission Footprint (TCO2e)	**4,379**

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

Location Based Approach Summary

Location Based Approach	Activity Data (kWh)	Emissions (kgCO2e)
Vic	6,404,260	6,980,644
Grid electricity (scope 2 and 3)	**6,404,260**	**6,980,644**
Vic	645,113	0
Non-grid electricity (Behind the meter)	**645,113**	**0**
Total Electricity Consumed	**7,049,373**	**6,980,644**
Emission Footprint (TCO2e)	**6,981**	

Climate Active Carbon Neutral Electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO2e)
None	**0**	**0**

Climate Active carbon neutral electricity is not renewable electricity. The emissions have been offset by another Climate Active member through their Product certification.

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following sources emissions have been assessed as relevant, 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	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
None				

APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

Excluded emission sources

The below emission sources have been assessed as not relevant to an organisation's or precinct'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	(1) Size	(2) Influence	(3) Risk	(4) Stakeholders	(5) Outsourcing	Included in boundary?
Transport of Animals	No	No	No	No	No	No
Rental vehicle	No	No	No	No	No	No
Telecommunications	No	No	No	No	No	No
Chemicals and Cleaning Chemicals	No	No	No	No	No	No
Vet Supplies	No	No	No	No	No	No

Animal Emissions	No	No	No	No	No	No
Mechanical Maintenance	No	No	No	No	No	No
Industrial Gasses	No	No	No	No	No	No
Horticulture Supplies	No	No	No	No	No	No
Professional & Trade Services	No	No	No	No	Yes	No
Print Services	No	Yes	No	No	No	No
Building Construction	No	Yes	No	No	No	No
Catering Services	No	Yes	No	No	No	No
Merchandise	No	No	No	No	No	No
Capital Goods	No	No	No	No	No	No

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