

National Carbon Offset Standard Carbon Neutral Program Public Disclosure Summary



An Australian Government Initiative

1. Organisation and Product Information

Table 1: Organisation and Product Information

Organisation Name	Zoos Victoria	
Name of the subject(s) of certification	Zoos Victoria	
Type of certification (tick all applicable)	<input checked="" type="checkbox"/> Organisation <input type="checkbox"/> Product/service <input type="checkbox"/> Part of organisation <input type="checkbox"/> Event	
Reporting year period	From 1/07/2012	To 30/06/2013
Emissions in this reporting year	14,730.76 t CO ₂ -e	
Base year period ^{1,2}	From 1/07/2011	To 30/06/2012
Emissions in the base year	14,913.84 t CO ₂ -e	

2. Description of Organisation Activities

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. Combined these zoos see more than

¹ First year for which the GHG Inventory has been completed – this will be considered to be the base year against which emission reduction activities will be measured.

² For events, a reference case can be provided against which emissions may be compared.



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Department of Industry, Innovation, Climate Change,
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2 million visitors each year and 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.

3. Organisational & Geographic Boundary/ Scope & system Boundary

For the purposes of certification, Zoos Victoria defines its organisational boundary in accordance with NCOS. More specifically, Zoos Victoria adopts an operational control consolidation approach to defining its boundary definition. All corporate group members and facilities are included in the boundary, including:

- i. the controlling corporation – Zoos Victoria
- ii. subsidiaries – that operate within the Zoos Victoria boundary
- iii. joint ventures - none
- iv. partnerships – none

The Zoos Victoria emissions boundary definition includes all scope 1 & 2 emissions and scope 3 emissions from business air travel, staff travel to and from work, waste to landfill, energy supply, paper use, reticulated water and the supply of animal foods. Scope 3 emissions are included on the basis of materiality and measurability. The diagram overleaf identifies key Zoos Victoria activities (applicable and measured at all sites), together with the breakdown of emission sources and the organizational boundary for emissions

4. Diagram of the Boundary of the Subject of Certification

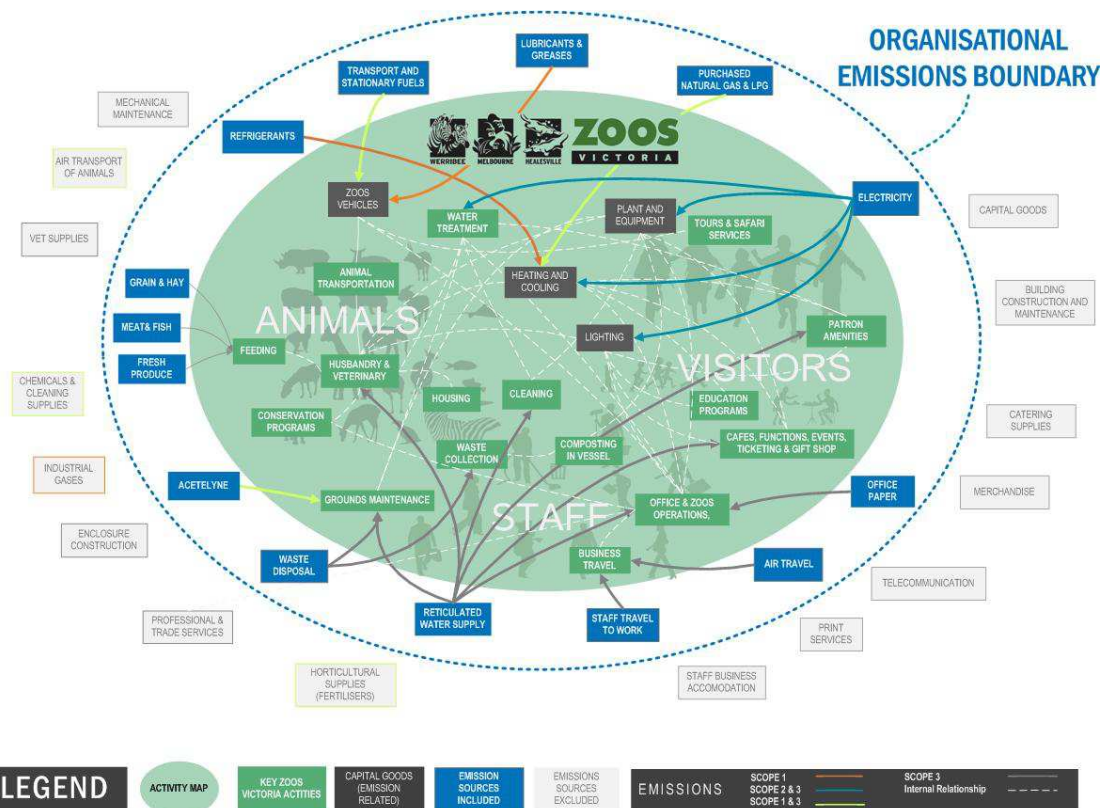


Diagram of Zoos Victoria's Emissions Boundary

5. Purchase of GreenPower and Retirement of GreenPower Eligible Large-Scale Generation Certificates (LGCS)

Table 2: GreenPower

Type	Volume	Unit	t CO ₂ -e	Status
GreenPower	0	kWh	0	Choose an item.

Table 3: LGCs Surrendered

Details of LGCs Voluntarily Surrendered	
Quantity	Serial No.
0	Nil

6. Purchase of NCOS Carbon Neutral Products

Table 4: Carbon Neutral Products

Product/service	Company	Quantity	Units	t CO ₂ -e (if known)
Flights	Qantas	39,882.96	Kilometres	9.00
Total (if known)				9.00

7. Total Carbon Footprint

Table 5: Emission sources, scopes and quantities

Scope	Emission source	t CO ₂ -e ³
1	Petrol for vehicles	100.20
1	Diesel for vehicles	233.83
1	B20 diesel for vehicles	4.63
1	LPG for vehicles	5.09
1	Refrigerant losses	78.88
1	Acetylene	0.01
1	Greases and lubricants for transport	15.20
1	Natural gas usage for buildings	669.49
1	LPG usage for buildings	18.36
2	Purchased electricity for buildings	8,359.98
3	Purchased electricity for buildings (fuel extraction, production & transport and transmission & distribution losses)	1,078.40

³ = Activity data x energy content factor (if applicable) x emission factor converted to tonnes CO₂-e

Scope	Emission source	t CO ₂ -e ³
3	Natural gas usage for buildings (extraction, production & transport)	50.87
3	LPG usage for buildings (extraction, production & transport)	1.53
3	Petrol for vehicles (extraction, production & transport)	7.94
3	Diesel for vehicles (extraction, production & transport)	17.75
3	B20 diesel for vehicles (extraction, production & transport)	0.34
3	LPG for vehicles (extraction, production & transport)	0.42
3	Municipal solid waste	1,084.39
3	Air travel	146.80
3	Purchased animal food	1,645.89
3	Purchased office paper	5.25
3	Employee travel to and from work	711.52
3	Reticulated water supply	502.96
3	Acetylene	0.001
Total (gross) carbon footprint in tonnes CO ₂ -e		14,739.75
Purchased Carbon Neutral flights		9.00
Net carbon footprint in tonnes CO ₂ -e		14,730.76 ⁴

⁴ Net carbon footprint (after deducting carbon neutral product) in two decimals places without rounding error.

8. Carbon Offset Purchases and Retirement for this Reporting Period

Our offset purchasing and cancelling is done at the end of the reporting period. This is in line with our annual reporting on environmental indicators. As a leading zoo-based conservation organisation, we will purchase NCOS acceptable offsets that have co-benefits that promote habitat protection, biodiversity and with social benefits.

Offset Cancellation:

Offset type	Registry	Serial number	Quantity (t CO ₂ -e)
VCU	Markit	2574-109974981-109977966-VCU-001-MER-KE-14-612-01012011-31122011-1	2,986
VCU	Markit	1597-66137091-66140076-VCU-006-MER-MY-14-672-01012007-31122010-0	2,986
VCU	Markit	2646-115092684-115098655-VCU-016-MER-AU-14-641-01072011-15042012-0	5,972
VCU	APX VCS Registry	3009-132464627-132467612-VCU-006-MER-PE-14-844-01012009-31122012-0	2,986
VCU	Markit	2970-131627188-131628113-VCU-006-MER-PE-14-84401012009-31122012-0; and 2902-127019396-127021395-VCU-006-MER-PE-14-844-01012009-31122012-0	2,926 ⁵

⁵ Offset in credit that was purchased to offset year 2011-12 but delivered in July 2013 due to verification delays. We will not be using this as a credit for future years but continue its original intent to be used for offsetting 2011-12 emissions.

Total	17,856
Less Offsets purchased for 2011-12 ⁵	2,926
Net Total Offsets for 2012-13	14,930
Net Carbon Footprint	14,730.76
Balance Offsets retained for subsequent years	199.24 ⁶

9. Emission Reduction Measures

Emission Reduction Measures

Emission source	Reduction Measure	Scope	Status	Reduction t CO ₂ -e
Electricity consumption	Lighting Upgrades - old	2	Implemented in a past reporting period	261.0
Electricity consumption	Heat Pump hot water systems	2	Implemented in a past reporting period	168.0
Electricity consumption	Variable Speed Pump upgrade	2	Implemented in a past reporting period	133.0
Electricity consumption	4 kW Solar PV at Melbourne Zoo	2	Implemented in a past reporting period	9.0
Energy consumption	Reflective paints at Melbourne Zoo	2	Implemented in a past reporting period	3.0

⁶ This offset balance acts as a positive buffer and will be used to negate subsequent year's carbon footprint.

Electricity consumption	HVAC upgrade at Healesville Sanctuary offices	2	Implemented in a past reporting period	33.8
Electricity consumption	Staff 'Switch Off' campaign	2	Implemented in a past reporting period	90.9
Fuel consumption	Hybrid Vehicle for executive staff	1	Implemented in a past reporting period	12.4
Water consumption	Rain water tanks and water recycling	3	Implemented in a past reporting period	288.7
Gas consumption	Insulation of Reptile House at Melbourne Zoo	1	Implemented in a past reporting period	9.4
Gas consumption	Double glazing of Butterfly House at Melbourne Zoo	1	Implemented in a past reporting period	80.2
Fuel consumption	Bio-diesel 10% for Melbourne Zoo	1	Implemented this reporting period	1.3
Waste to Landfill	<p>Maximise production of the Hot Rot in-vessel composter system by:</p> <ul style="list-style-type: none"> -taking organics waste from visitors and composting. This involves a 3rd bin system and changing takeaway food and beverage containers to compostable ones. -composting horticulture waste -diverting elephant waste from landfill into garden compost through a nursery. <p>Recycling of plastics, paper, building material and e-waste</p>	3	Implemented this reporting period	1219.4

Electricity consumption	12.5 kW Solar PV at Healesville Sanctuary	2	Planned for future reporting period	24.6
Electricity consumption	60.5 kW Solar PV at Melbourne Zoo	2	Planned for future reporting period	119.2
Electricity consumption	20 kW Solar PV at Werribee Open Range Zoo	2	Planned for future reporting period	39.4
Electricity consumption	Lighting Upgrades at Healesville Sanctuary	2	Planned for future reporting period	35.6
Electricity consumption	65 kW Solar PV at Melbourne Zoo	2	Planned for future reporting period	128
Total emission reductions implemented in this reporting period				1220.7
Total expected emission reductions in future reporting periods				346.8

Carbon Neutral Products

Product/service	Company	Quantity	Units	t CO ₂ -e (if known)
Flights	Qantas	39,882.96	Kilometres	9.00
Total (if known)				9.00

10. Other Information

Zoos Victoria has taken its story of becoming carbon neutral certified to zoos around the world, presenting to the Zoos and Aquariums Association (ZAA) about our achievement. The ZAA consists of zoological institutions from across the world and since presenting, we have heard from numerous organisations eager to follow our achievement.

Our 150,000 Zoos Victoria Members have also been learning about our achievement through our member magazine, Zoo News. The magazine highlighted the work completed to become carbon neutral and also provided them with small tips about how they could also reduce their environmental footprint.

Finally, our carbon neutrality program has received a number of award recognitions namely:

Finalist and Special Commendation for Zoos Victoria's 'Becoming Carbon Neutral' in the United Nations Association of Australia World Environment Day Awards 2013 – Business Award for Best Specific Environmental Initiative category.

Finalist for Zoos Victoria's 'World's First Carbon Neutral Zoos' in the Banksia Awards 2013 - Leading in Sustainability - Setting the Standard for Large Organisations Award

Finalist (final results to be announced on 16th November 2013) for Zoos Victoria's 'Going Carbon Neutral' in the 2013 Melbourne Awards - Contribution to sustainability by a corporation

11. Declaration

To the best of my knowledge and having implemented the quality controls and standards required under the NCOS Carbon Neutral Program and made all appropriate inquiries, the information provided in this Public Disclosure Summary is true and correct.

Kiam Yoong



Name of Signatory

Signature

Manager Environmental Sustainability

Position / Title of Signatory

24/01/2014

Date