PUBLIC DISCLOSURE STATEMENT

MUSEUM OF APPLIED ARTS AND SCIENCES

100 CLIMATE CONVERSATIONS

FEBRUARY 2022 – DECEMBER 2023

PRE-EVENT REPORT

Australian Government

Climate Active
Pre-event Public Disclosure Statement

Large event

Museum of Applied Arts & Sciences

An Australian Government Initiative

Climate Active

Museum of Applied Arts & Sciences

100 Climate Conversations

February 2022 to December 2023

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.

Signature Jane Latief Date 15/06/22

Name of Signatory – Jane Latief

Position of Signatory – Exhibitions Project Coordinator

Australian Government
Department of Industry, Science, Energy and Resources

Version number May 2021

1. Carbon neutral information

The activity data collected from the museum operations and the Climate Active event calculator, which was based on the *Climate Active Carbon Neutral Standard for Events* were used to prepare this carbon inventory.

Event introduction

100 Climate Conversations is a survey of leading Australian innovators acting on climate change that will take place from February 2022 and finishing in December 2023. Renowned Australian journalists will engage experts in the fields of traditional knowledge, marine ecology, landscape architecture, environmental engineering, and climate law among many other critical sectors involved in the climate challenge.

100 Climate Conversations is entirely owned and managed by the Museum of Applied Arts and Sciences and is estimated to attract 120,000 attendees for the weekly conversations alone. All conversations will take place in a custom-built studio, with a floor area of 495 m^2, within the exhibition space of the Powerhouse each week. Each conversation will be filmed and incorporated into the exhibition as it continues to grow.

On completion of the two-year project, all 100 conversations will become an important archive acknowledging the Australian innovation in responding to climate change during this historical and pivotal moment in time. As Australia's most ambitious climate-focused exhibition and program, 100 Climate Conversations will play a crucial role in engaging audiences and presenting an evidence-based and empowering vision of the future.

2. Emissions reduction measures

The following actions have been identified as emission reduction opportunities for the 100 Climate Conversations event:

Diversion of waste from landfills by repurposing props and equipment wherever possible in future events: All cameras, teleprompters, and television screens purchased for use in the 100 Climate Conversations exhibition will be utilized in future museum projects and will not be sent to landfill.

Currently, the Powerhouse Museum sends comingled waste to an EPA Accredited Resource Recovery Centre for sorting. The museum has also sent approximately 30,000 kilograms of E-waste to an accredited E-waste management company.

3. Emissions boundary

Emission boundary Diagram

Quantified	Non-quantified	Excluded
Electricity	Advertising	N/A
Natural gas		
Travel – Ground		
Travel – Flights		
Accommodation		
Food and drink		
Waste		
Construction materials		
Water usage		
Food waste		

4. Emissions summary

The carbon inventory in the table below refers to the estimated emissions.

Table 1 Emissions summary

Emission source category	Sum of Scope 1 (TCO2e)	Sum of Scope 2 (TCO2e)	Sum of Scope 3 (TCO2e)	Sum of Total Emissions (TCO2e)
Accommodation and facilities			20.21	20.21
Cleaning and Chemicals			1.65	1.65
Construction Materials and Services			141.44	141.44
Electricity		78.56		78.56
Food			1.85	1.85
Stationary Energy (gaseous fuels)	1.07		0.27	1.35
Transport (Air)			195.74	195.74
Transport (Land and Sea)			10.86	10.86
Waste			6.90	6.90
Water			4.60	4.60
Total	**1.07**	**78.56**	**383.51**	**463.14**

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_2-e
Uplift to account for all emissions resulting from advertising and promotion	46.31
Uplift to account for the emissions for the duration of the event	92.51
Total of all uplift factors	138.94
Total footprint to offset *(total net emissions from summary table + total uplifts)*	**601.97**

5. Carbon neutral products

The following carbon neutral products were used during this reporting and at the time of the pre-event statement:

- Carbon neutral Winc paper used in corporate operations

6. Data collection

Table 2 Data collection

Emission source	Data collection method	Assumptions
Natural gas	The gas usage of the event was based on the gas consumption of the Museum of Applied Arts and Sciences for FY2019-2020 and the floor area of 495 m^2 within the Powerhouse exhibition space that will be used for the event. This will be updated in the post-event report to reflect the actual gas consumption during the event.	n/a
Electricity	The electricity use of the event was based on the total electricity consumption of Museum of Applied Arts and Sciences for FY2019-2020, the estimated special lighting power consumption, and the 495 m^2 within the Powerhouse exhibition space that will be used for the event. This will be updated in the post-event report to reflect the actual electricity consumption during the event.	• It was assumed that special lighting uses maximum power (at 100% brightness) for 1 hour during the filming of the conversations and dimmed by 50% when not filming.
Local transport	The local transport data was based on the FY 2020 visitation postcodes gathered by the Powerhouse Museum and the split between the different types of local transport was calculated using the Climate Active event calculator. An attribution factor was applied based on the estimated activity data. The attribution factor accurately represents the proportion of travel that can be attributed to the event versus other activities the attendee may have travelled for on that day. The method of data collection will be updated in the post-event report to reflect the actual split during the event.	• It was assumed that an attendee spends an average of 2 hours at the museum. • The exhibit area is approximately 5% of the total gallery space floor area.
Regional ground transport	Ground transport data was based on the FY 2020 visitation postcodes gathered by the Powerhouse Museum and the average kilometres travelled by light vehicles by type of fuel provided in Table 12	• It was assumed that an attendee spends an average of 2 hours at the museum.

	of the 2020 Survey of Motor Vehicle Use in Australia from the Australian Bureau of Statistics. An attribution factor was applied based on the estimated activity data. The attribution factor accurately represents the proportion of travel that can be attributed to the event versus other activities the attendee may have travelled for on that day. This method of data collection will be updated in the post-event report to reflect the actual split during the event.	• The exhibit area is approximately 5% of the total gallery space floor area.
Air travel	The international flights data was based on the FY 2020 visitation postcodes gathered by the Powerhouse Museum and the average kilometres travelled by each attendee from the capital city of their country of origin. An attribution factor was applied based on the estimated activity data. The attribution factor accurately represents the proportion of travel that can be attributed to the event versus other activities the attendee may have travelled for on that day. This method of data collection will be updated in the post-event report to reflect the actual kilometres travelled by the event attendees.	• It was assumed that an attendee spends an average of 2 hours at the museum. • Domestic travellers spend an average of 2.7 days in Sydney according to Tourism Research Australia (TRA) • International travellers spend an average of 20.3 days in Sydney according to Tourism Research Australia (TRA) • The exhibit area is approximately 5% of the total gallery space floor area.
Food	The food data was based on the museum café visitation data for FY2020 and the staff FTE involved in the event and exhibitions. This method of data collection will be updated in the post-event report to reflect the actual number of meals consumed during the event.	It was assumed that attendees can choose from 3 meal types: • Morning tea (low emissions meal) • Lunch (high-emissions meal) • Afternoon tea (low emissions meal It was assumed that the meal consumption split is:

		Morning tea – 33% Lunch – 33% Afternoon tea – 33%
Accommodation	Accomodation data was based on the FY2020 visitation postcodes gathered by the Powerhouse Museum. Corresponding attribution factors were applied on domestic and international attendees. The attribution factor accurately represents the proportion of travel that can be attributed to the event versus other activities the attendee may have travelled for on that day. This method of data collection will be updated in the post-event report to reflect the actual number of event attendees.	• It was assumed that an attendee spends an average of 2 hours at the museum. • Domestic travellers spend an average of 2.7 days in Sydney according to Tourism Research Australia (TRA) • International travellers spend an average of 20.3 days in Sydney according to Tourism Research Australia (TRA) • 21% of travellers (total of domestic and international) to Sydney prefer to stay in a 4-star or 5-star luxury hotel according to Tourism Research Australia (TRA) • 20% of travellers (total of domestic and international) to Sydney prefer to stay in standard hotels or inns (below 4-star) according to Tourism Research Australia (TRA) • The exhibit area is approximately 5% of the total gallery space floor area.
Water	The water use at the event was based on the water consumption estimate for 1 flush and 1 handwash per attendee. This will be updated in the post-event report to reflect the actual water consumption during the event.	• It was assumed that each attendee uses 1 flush and 1 handwash. • It was assumed that the speakers and event staff water usage is 100% attributed to the event.

		• The exhibit area is approximately 5% of the total gallery space floor area. • The average water consumption of a 4-star toilet is 3.5L per flush and the average water consumption of a 6-star tap is is 4.2L per handwash.
Waste	The Climate Active events calculator was used to estimate the food waste generated from the event. The general waste generation during the event was estimated based on the assumption that each attendee generates 100 grams of waste. This will be updated in the post-event report to reflect the actual food waste and construction waste generated during the event.	• The average waste generated per person in Sydney (Commercial & Industrial) is 2.00 kg. The amount of waste that is diverted to the landfill is 52%.
Cleaning and Chemicals	The cleaning and chemicals data was based on the actual museum expenditure to clean all buildings at the Ultimo site and the 495 m^2 area within the Powerhouse exhibition space that will be used for the event.	n/a
Construction Materials and Services	The construction materials and services data was based on the actual budget for the construction of the exhibition area.	n/a

7. Eligible offset units

Offsets summary

Table 3: Offsets summary

Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Quantity (tonnes CO2-e)
Carbon Conscious Carbon Capture Project 2 (Project ID: EOP100638)	KACCU	ANREU	11/02/2022	3,753,728,701 - 3,753,728,799	2016-17	99
Jandra/Nulty Native Forest Regeneration Project (Project ID: ERF101511)	KACCU	ANREU	11/02/2022	8,323,922,949 - 8,323,922,970	2020-21	22
Bundled Solar Power Project by Vector Green Energy Private Limited	VCU	VERRA	16/02/2022	8342-10136417-10136897-VCS-VCU-997-VER-IN-1-1770-23052018-31122018-0	2018	481
Total offsets cancelled						602

One hundred twenty-one (121) units of ACCUs and four hundred eighty-one (481) units of VCUs have been retired on behalf of Powerhouse Ultimo's 100 Climate Conversations exhibition to support its carbon neutral claim against the Climate Active Carbon Neutral Standard. The museum will calculate the final carbon footprint of the event post-completion. At that time, a true-up will be performed against the actual carbon footprint versus the carbon offsets that have been purchased.If the final carbon footprint exceeds the current offset purchase, additional carbon offsets will be retired.

Offset projects – co-benefits

This section provides a brief description of the carbon offsets project purchased and retired for the 100 Climate Conversations' carbon-neutral claim.

Reforestation project in Western Australia

The project relates to 16 per cent of the total amount of offsets purchased and retired for this reporting period. The activity includes the strategic revegetation of forest area that was previously cleared for agriculture. This connects the 11,007 hectares of reforestation sites that are contained on 21 properties within the Central and Northern Agricultural Regions of Western Australia. From 2009 to 2012 over 13,000,000 native species mallee trees were planted in the regions that were recognised as significantly over-cleared. To date, about 33,000tCO2e have been sequestered. Reforestation continues to provide protective habitats for native flora and fauna such as the endangered Carnaby's Black Cockatoo; reduces wind and water erosion; in some cases reduces soil salinity; and some cases provide a useful environment for sheep and honey bees.

Jandra/Nulty Native Forest Regeneration project in NSW

The project relates to 4 per cent of the total amount of offsets purchased and retired for this reporting period. The activity includes the restoration of native forests and carbon sequestration on degraded agricultural land. Forest cover is restored through Human-Induced Regeneration methods. This creates an alternative and additional revenue stream for the regional communities. As trees grow, local ecosystems regenerate, improving biodiversity, land and water quality.

Bundled Solar Power Project by Vector Green Energy Private Limited

This project relates to 80 per cent of the total amount of offsets purchased and retired for this reporting period. The activity includes the installation of 105 MW solar PV in 2 Indian states using over 1 million PV panels. The project reduces anthropogenic emissions of greenhouse gases (GHG) estimated to be approximately 292,998 tCO_2e per year, and displaces 303,534 MWh/year of electricity generated from fossil fuel based power plants. It creates employment and increases the reliability and quality of the electricity grid, thereby generating economic activity in the area.

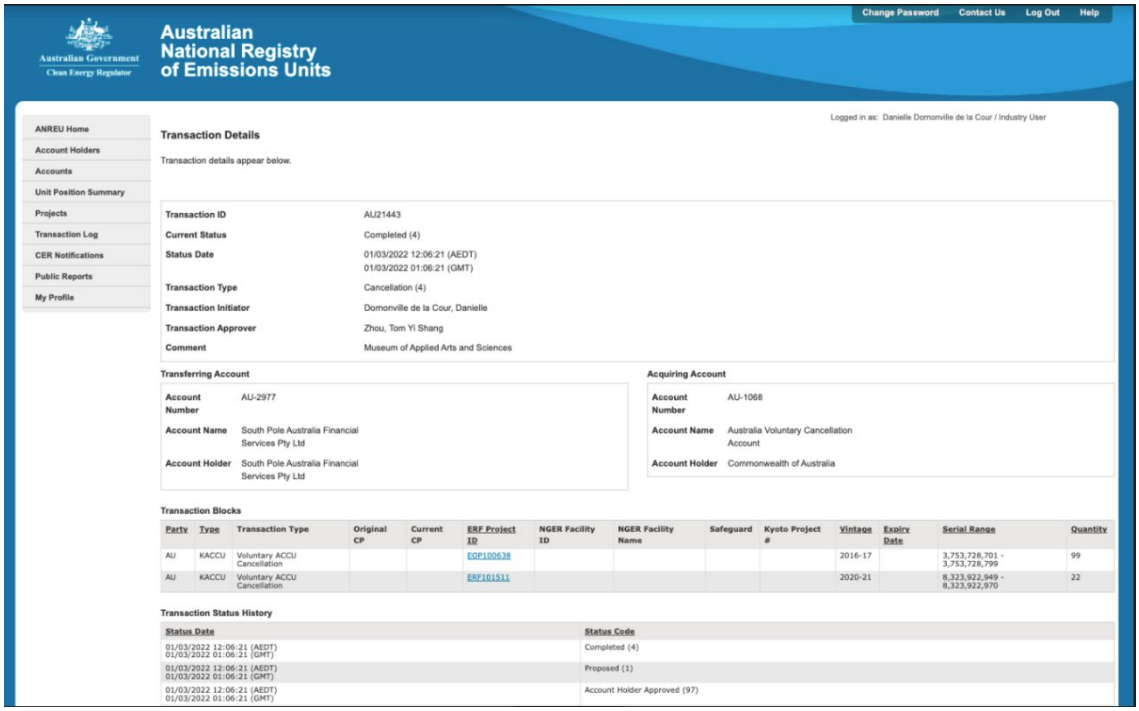
8. Use of certification trade mark

Table 4: Trade mark register

Description where trademark used	Logo type
Digital promotional materials	Certified event
Website – www.maas.museum	Certified event
Website – 100climateconversations.com.au	Certified event
Exhibition signage	Use of the text 'certified carbon neutral by Climate Active'

Appendix A: Attachment

Attachment 1: Proof of ACCU purchase and retirement



Australian Government
Clean Energy Regulator

Australian National Registry of Emissions Units

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Logged in as: Danielle Dornonville de la Cour / Industry User

ANREU Home
Account Holders
Accounts
Unit Position Summary
Projects
Transaction Log
CER Notifications
Public Reports
My Profile

Transaction Details

Transaction details appear below.

Transaction ID	AU21443
Current Status	Completed (4)
Status Date	01/03/2022 12:06:21 (AEDT) 01/03/2022 01:06:21 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Dornonville de la Cour, Danielle
Transaction Approver	Zhou, Tom Yi Shang
Comment	Museum of Applied Arts and Sciences

Transferring Account

Account Number	AU-2977
Account Name	South Pole Australia Financial Services Pty Ltd
Account Holder	South Pole Australia Financial Services Pty Ltd

Acquiring Account

Account Number	AU-1068
Account Name	Australia Voluntary Cancellation Account
Account Holder	Commonwealth of Australia

Transaction Blocks

Party	Type	Transaction Type	Original CP	Current CP	ERF Project ID	NGER Facility ID	NGER Facility Name	Safeguard	Kyoto Project #	Vintage	Expiry Date	Serial Range	Quantity
AU	KACCU	Voluntary ACCU Cancellation			EQP100638					2016-17		3,753,728,701 - 3,753,728,799	99
AU	KACCU	Voluntary ACCU Cancellation			ERF101511					2020-21		8,323,922,949 - 8,323,922,970	22

Transaction Status History

Status Date	Status Code
01/03/2022 12:06:21 (AEDT) 01/03/2022 01:06:21 (GMT)	Completed (4)
01/03/2022 12:06:21 (AEDT) 01/03/2022 01:06:21 (GMT)	Proposed (1)
01/03/2022 12:06:21 (AEDT) 01/03/2022 01:06:21 (GMT)	Account Holder Approved (97)

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	0	0	0%
Total non-grid electricity	**0**	**0**	**0%**
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)	17,088	0	19%
Residual Electricity	73,206	78,556	0%
Total grid electricity	**90,294**	**78,556**	**19%**
Total Electricity Consumed (grid + non grid)	**90,294**	**78,556**	**19%**
Electricity renewables	17,088	0	
Residual Electricity	73,206	78,556	
Exported on-site generated electricity	**0**	**0**	
Emission Footprint (kgCO2e)		78,556	

Total renewables (grid and non-grid)	**18.93%**
Mandatory	**18.93%**
Voluntary	**0.00%**
Behind the meter	**0.00%**
Residual Electricity Emission Footprint (TCO2e)	**79**

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

Location Based Approach Summary

Location Based Approach	Activity Data (kWh)	Scope 2 Emissions (kgCO2e)	Scope 3 Emissions (kgCO2e)
ACT	0	0	0
NSW	90,294	73,137	8,126
SA	0	0	0
Vic	0	0	0
Qld	0	0	0
NT	0	0	0
WA	0	0	0
Tas	0	0	0
Grid electricity (scope 2 and 3)	**90,294**	**73,137**	**8,126**
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
Vic	0	0	0
Qld	0	0	0
NT	0	0	0
WA	0	0	0
Tas	0	0	0
Non-grid electricity (Behind the meter)	**0**	**0**	**0**
Total Electricity Consumed	**90,294**	**73,137**	**8,126**

Emission Footprint (TCO2e)	**81**
Scope 2 Emissions (TCO2e)	73
Scope 3 Emissions (TCO2e)	8

Climate Active Carbon Neutral Electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO2e)
Enter product name/s here	**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.

Relevant-non-quantified emission sources	(1) Immaterial	(2) Cost effective (but uplift applied)
Advertising	No	Yes (uplift applied)