PUBLIC DISCLOSURE STATEMENT

THE SYDNEY OPERA HOUSE

ORGANISATION

FY 2020-2021

PLEASE DO NOT CHANGE THE DESIGN OR FORMATTING OF THIS DOCUMENT

Australian Government

Climate Active Public Disclosure Statement

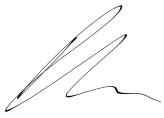
An Australian Government Initiative

NAME OF CERTIFIED ENTITY: The Sydney Opera House

REPORTING PERIOD: 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.

Signature  Date 20/09/21

Name of Signatory Ian Cashen

Position of Signatory Executive Director, Building, Safety & Security

Australian Government
Department of Industry, Science, Energy and Resources

1. CARBON NEUTRAL INFORMATION

Description of certification

"Climate Active certification is important to demonstrate a genuine commitment to climate action.

This inventory has been prepared for the financial year from 1 July 2020 to 30 June 2021 and covers the business operations of the Sydney Opera House Trust (SOHT).

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 Sydney Opera House Trust

The boundary excludes the transport of audience members, tenants and contractors to and from the Opera House precinct. Natural gas consumption by tenants within the precinct has also been excluded as this is separately metered.

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

- Climate Active Standard for organisations
- The GHG 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). No perfluorocarbons (PFCs), and sulphur hexafluoride (SF6) or nitrogen trifluoride (NF3) were detected within the operational boundary. All emission sources have been expressed as carbon dioxide equivalents (CO2-e) using relative global warming potentials (GWPs).

Organisation description

The Sydney Opera House is a masterpiece that belongs to all Australians.
It is Australia's number one tourist destination and one of the world's busiest performing arts centre, welcoming more than 10 million visitors a year and hosting 2,000 performances attended by 1.45 million people. On its 40th Anniversary in 2013, the Opera House embarked upon a Decade of Renewal to

prepare it for future generations of artists, audiences and visitors.

As the symbol of modern Australia, the Opera House is committed to leading by example and embedding environmental sustainability in everything it does. It is one of only a handful of UNESCO World Heritage-listed buildings internationally to achieve a 5 Star Green Star - Performance rating, setting a new standard for heritage buildings and inspiring positive change in our community.

The Opera House's fourth Environmental Action Plan (2020-23) commits to achieving a number of ambitious goals by its 50th anniversary in 2023. Key goals include reducing energy use by 20%; recycling more than 85% of operational waste; achieving a 6 Star Green Star performance rating, which is equivalent to Global Leadership in Sustainability and developing a pathway to become climate positive.

2. EMISSION BOUNDARY

Diagram of the certification boundary

Quantified

Electricity

Base Building Electricity

Telecommunications

Water

IT Equipment

Office Paper

Paper

Stationery

Employee Commute

Working From Home

Business Flights

Transport Fuels

Cleaning Services

Food & Catering

Postage

Hotel Accommodation (Domestic & International)

Advertising

Taxis

Hire Cars

Refrigerants

Waste (Landfill & Recycling)

Non-quantified

Liquid Waste – Grease Trap

Excluded

Audience, Tenant and Contractor Travel

Natural Gas – Tenant Consumption

Non-quantified sources

- Quantification of emissions related to the processes involved in the various streams associated with the treatment of grease trap waste is not currently possible due to insufficient data from third-party suppliers. Further engagement will be undertaken so that this activity can be incorporated into future accounts. The associated emissions with the grease trap waste will also be immaterial.

"Climate Active certification is important to demonstrate a genuine commitment to climate action.

Data management plan

N/A

Excluded sources (outside of certification boundary)

- Carbon emissions related to travel to and from the Opera House precinct by the audience, tenants and contractors, who are not directly employed by the Opera House are outside of the operational control boundary as there is no jurisdiction to enforce policies and procedures related to health, safety and the environment.

- The consumption of natural gas by tenants within the Opera House precinct is separately metered and not under the operational control of the SOHT.

3. EMISSIONS SUMMARY

Emissions reduction strategy

The Opera House's Environmental Action Plan (EAP) 2020-23 sets an objective to reduce its energy use by 20% from baseline; achieve 85% recycling of operational waste; achieve a 6 Star Green Star - Performance rating and develop a climate positive pathway by 2023.

Electricity (Scope 1 & 2) is responsible for over 80% of the Opera House's emissions. Scope 2 - purchased electricity - was identified as the largest emissions source, and therefore provided the greatest opportunity for decarbonisation, making it the primary focus of the emissions reduction strategy.

This was supported by implementation of a best practice waste management program which has led to over 80% of operational waste being recycled and diverted from landfill.

Emissions over time

The Opera House has achieved energy savings since base year as a result of efficiency projects from 2018 including the upgrade of SOH central chiller plant, the implementation of a new Building Management Control System to optimize heating and cooling performance, and improved waste management performance which resulted an increase waste recycling from 60-85%,
In 2020-21SOH's carbon footprint was impacted by Sydney Opera House closure from July - September2021 due to the Covid-19 pandemic. Site closure resulted in a reduction in resource use and waste generation precinct wide due to the cancellation of all performances and events; tours and; closure of retail and F&B operations.

Table 1

Emissions since base year			
	Base year: 2017-18	Year 2: 2019-20	Current year Year 3: 2020-21
Total tCO_2-e	17,597.6	15,142.1	12,349.6

Emissions reduction actions

During the 2019-20 period the SOH engaged a consultant to undertake a site wide energy audit. The purpose of the audit was to identify further energy savings opportunities to further reduce consumption toward the 20% reduction target. A hot weather protocol was initiated to respond to high temperature conditions and efficiently cool the building. During 2020-21 period wok continued to optimise building performance while meeting the requirements of the Opera House's Covid safe plan.

Emissions summary (inventory)

Table 2

Emission source category	tonnes CO_2-e
Accommodation and facilities	2.189
Air Transport (km)	9.100
Bespoke	265.918
Cleaning and Chemicals	579.754
Electricity	10,773.102
Food	33.735
ICT services and equipment	197.805
Land and Sea Transport ($)	2.228
Land and Sea Transport (fuel)	3.786
Land and Sea Transport (km)	101.013
Office equipment & supplies	62.321
Postage, courier and freight	10.819
Professional Services	139.190
Waste	69.216
Water	44.692
Working from home	54.760
Total Net Emissions	12,349.627

Uplift factors

Table 3

Reason for uplift factor	tonnes CO_2-e
N/A	
Total footprint to offset (uplift factors + net emissions)	12,349.627

Carbon neutral products

N/A

Electricity summary

Electricity was calculated using a market-based approach.

Market-based approach summary
Table 4

Market-based approach	Activity Data (kWh)	Emissions ($kgCO_2$-e)	Renewable %
Behind the meter consumption of electricity generated	0	0	0.0%
Total non-grid electricity	**0**	**0**	**0.0%**
LGC Purchased and retired (kWh) (including PPAs)	0	0	0.0%
GreenPower	3,574	0	0.0%
Jurisdictional renewables	0	0	0.0%
Residual Electricity	10,039,416	10,773,102	0.0%
Large Scale Renewable Energy Target (applied to grid electricity only)	2,344,293	0	19%
Total grid electricity	**12,387,284**	**10,773,102**	**19%**
Total Electricity Consumed (grid + non grid)	**12,387,284**	**10,773,102**	**19%**
Electricity renewables	2,347,868		
Residual Electricity	10,039,416	10,773,102	
Exported on-site generated electricity	**0**	**0**	
Emission Footprint ($kgCO_2$-e)		10,773,102	

Emission Footprint (tCO_2-e)	**10,773**
LRET renewables	**18.93%**
Voluntary Renewable Electricity	**0.03%**
Total renewables	**18.95%**

Location-based approach summary
Table 5

Location-based approach	Activity Data (kWh)	Emissions ($kgCO_2$-e)
NSW	12,367,264	11,148,055
Grid electricity (scope 2 and 3)	**12,367,264**	**11,148,055**
NSW	0	0
Non-grid electricity (Behind the meter)	**0**	**0**
Total Electricity Consumed	**12,367,264**	**11,148,055**

Emission Footprint (tCO_2-e)	**11,149**

4. CARBON OFFSETS

Offsets strategy

Table 6

Offset purchasing strategy: **In arrears**	
1. Total offsets previously forward purchased and banked for this report	*0*
2. Total emissions liability to offset for this report	12,349.627
3. Net offset balance for this reporting period	12,349.627
4. Total offsets to be forward purchased to offset the next reporting period	*376.0*
5. Total offsets required for this report	12,350

Co-benefits

NIHT Topaiyo REDD +: NIHT Inc. has partnered with the traditional landowners of New Ireland and East New Britain to put an end to deforestation initiated by industrial logging in the region. The preservation of these rainforests is essential to not only the carbon and biodiversity benefits inherent with projects of this nature, but also for the wellbeing and prosperity of the people of New Ireland and East New Britain. The project is located in the forested areas of New Ireland and East New Britain in Papua New Guinea. The project has evolved based on the input and needs expressed by persons living in the region. What began as a traditional timber operation has been recognised as an opportunity with enormous carbon sequestering potential and has evolved into a forest protection project that will provide substantial economic benefits to the people of Papua New Guinea. Through the avoidance of carrying out exploitative industrial commercial timber harvesting in the project area, the project expects to generate nearly 60 million tonnes of CO2 emissions reductions across the 30 year project lifetime, depending on the number and size of Project Activity Instances (PAIs) added to the project.

150 MW grid connected Wind Power based electricity generation project in Gujarat, India.: The main purpose of the project is to generate renewable electricity using wind power and feed the generated output to the local grid in Gujarat, contributing to climate change mitigation efforts. In addition to the generation of renewable energy-based electricity, the project has also been conceived to enhance the propagation of commercialisation of wind power generation in the region and to contribute to the sustainable development

of the region, socially, environmentally and economically. The proposed project activity leads to alleviation of poverty by establishing direct and indirect employment benefits accruing out of infrastructure development of wind farms, installation work, operation and management of wind farm, providing daily needs, etc. The infrastructure in and around the project area will also improve due to project activity. This includes development of road network and improvement of electricity quality, frequency and availability as the electricity is fed into a deficit grid. The generated electricity is fed into the Western regional Grid through local grid, thereby improving the grid frequency and availability of electricity to the local consumers (villagers & sub-urban habitants) which will provide new opportunities for industries and economic activities to be setup in the area thereby resulting in greater local employment, ultimately leading to overall development.

Offsets summary

Proof of cancellation of offset units

Table 7

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 (%)**
NIHT Topaiyo REDD +	VCUs	VERRA	07 Sep 2021	9629-113179319-113181794-VCS-VCU-466-VER-PG-14-2293-01062017-31122019-0	2017-2019	2,476	0	376	2,100	19.4%
150 MW grid connected Wind Power based electricity generation project in Gujarat, India.	VCUs	VERRA	31 Aug 2021	9085-66625776-66627425-VCS-VCU-1491-VER-IN-1-292-01012017-31122017-0	2017	1,650	0	0	1,650	13.0%
Vishnuprayag Hydro-electric Project (VHEP) by Jaiprakash Power Ventures Ltd.(JPVL)	VCUs	VERRA	30 Aug 2021	10593-230730846-230739445-VCS-VCU-259-VER-IN-1-173-01012013-	2013	8,600	0	0	8,600	67.6%

				31122013-0						
									Total offsets retired this report and used in this report	12,350	100%
									Total offsets retired this report and banked for future reports		
Additional offsets cancelled for purposes other than 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)**	**Purpose of cancellation**			

Type of offset units	**Quantity (used for this reporting period claim)**	**Percentage of Total**
Verified Carbon Units (VCUs)	12,350	100%

5. USE OF TRADE MARK

Table 8

Description where trademark used	Logo type
https://www.sydneyoperahouse.com/	Certified Organisation

6. ADDITIONAL INFORMATION

The Sydney Opera House has also purchased an additional 1,650 tonnes of biodiversity offsets through Greenfleet. Greenfleet is a leading Australian not-for-profit environmental organisation on a mission to protect our climate by restoring forests. Greenfleet forests address critical deforestation, restore habitat for wildlife including many endangered species, capture carbon emissions to protect our climate, reduce soil erosion, improve water quality, and economically support local and indigenous communities.

APPENDIX 1

Excluded emissions

Please detail any excluded emissions in the table below and indicate yes or no against each of the specific criteria.

To be deemed relevant an emission must meet two of the five relevance criteria. Excluded emissions are detailed below against each of the five criteria.

Table 9

Relevance test					
Excluded emission sources	*The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions*	*The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.*	*Key stakeholders deem the emissions from a particular source are relevant.*	*The responsible entity has the potential to influence the reduction of emissions from a particular source.*	*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.*
Audience, Tenant and Contractor Travel	Yes	No	No	No	No
Natural Gas – Tenant Consumption	No	No	No	No	No

APPENDIX 2

Non-quantified emissions for organisations

Table 10

Non-quantification test				
Relevant-non-quantified emission sources	*Immaterial <1% for individual items and no more than 5% collectively*	*Quantification is not cost effective relative to the size of the emission but uplift applied.*	*Data unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.*	*Initial emissions non-quantified but repairs and replacements quantified*
Liquid Waste – Grease Trap	Yes	No	No	No

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