



PUBLIC DISCLOSURE STATEMENT

THE SYDNEY OPERA HOUSE

ORGANISATION
FY 2019-20

Australian Government
Climate Active
Public Disclosure Statement



An Australian Government Initiative



NAME OF CERTIFIED ENTITY: The Sydney Opera House

REPORTING PERIOD: 1 July 2019 – 30 June 2020

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 17/11/2020

Ian Cashen

Name of Signatory

Executive Director, Building, Safety & Security

Position of Signatory



Australian Government

**Department of Industry, Science,
Energy and Resources**

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1. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the financial year from 1 July 2019 to 30 June 2020 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-

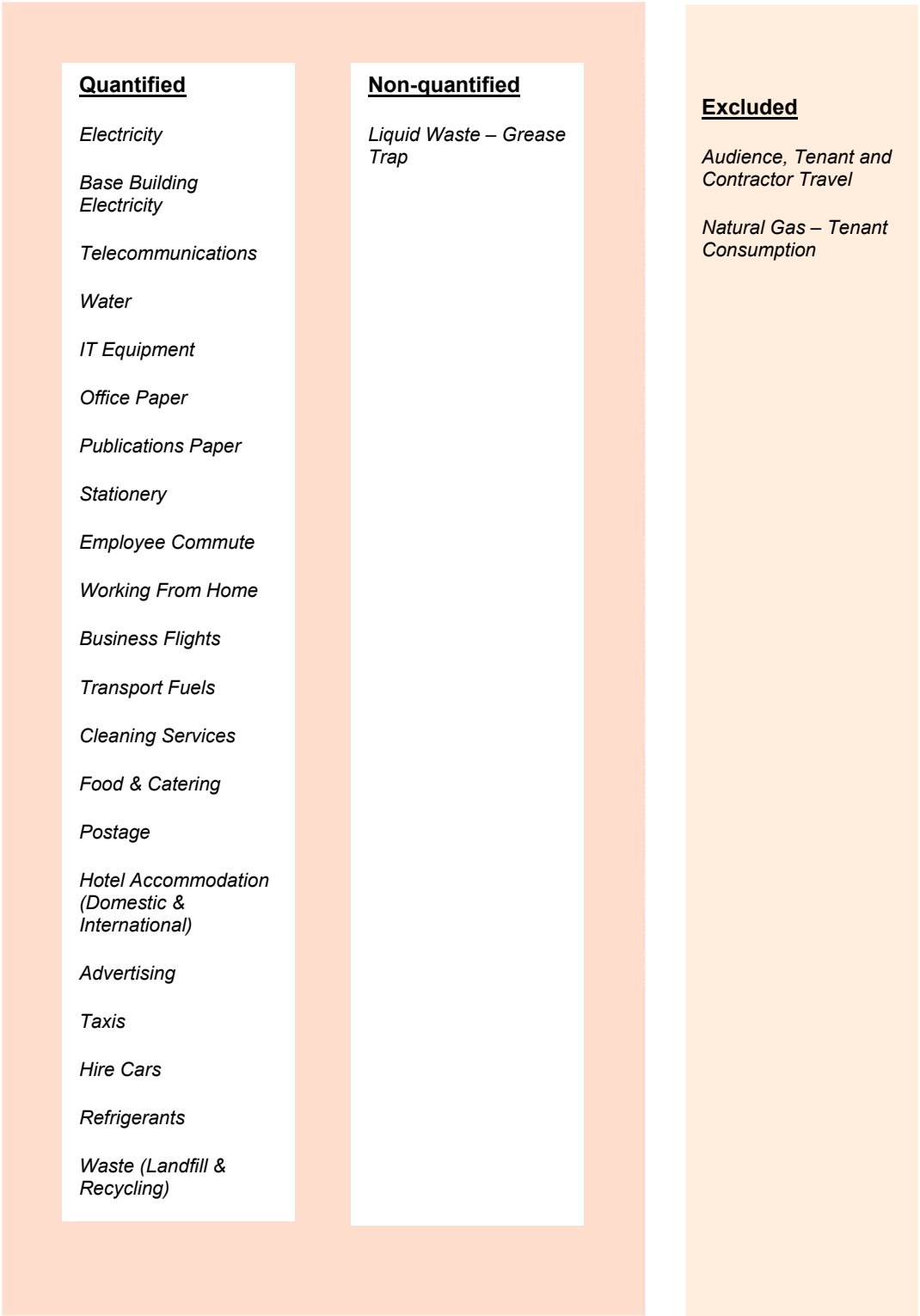
"Climate Active enables the Opera House to demonstrate a genuine commitment to climate action."

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 Sustainability 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



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.

“Carbon neutrality ensures the Opera House protects the environment; leads by example, and inspires positive change”

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 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 an 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 of waste recycling from 60-85%,

In 2019-20 SOH's carbon footprint was impacted by Sydney Opera House closure from April- June 2020 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; site tours and; the closure of retail and F&B operations.

Table 1

Emissions since base year			
	Base year: 2017-18	Year 1: 2018-19	Current year Year 2: 2019-20
<i>Total tCO2e</i>	17,597.6	17,471.2	15,142.1

Emissions reduction actions

- During the 2019-20 period the SOH engaged a consultant to undertake an 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.
- Additional metering and monitoring was implemented to ensure the team work to continually optimize building performance.

Emissions summary (inventory)

Table 2

Emission source category	tonnes CO ₂ -e
Accommodation and facilities	11.83
Air Transport (km)	166.50
Car Hire	12.37
Cleaning and Chemicals	540.72
Electricity	12,800.49
Employee Commute	465.58
Food	97.92
ICT services and equipment	241.01
Land and Sea Transport (fuel)	4.31
Office equipment & supplies	49.78
Postage, courier and freight	97.86
Professional Services	129.15
Refrigerants	267.83
Taxis	8.99
Waste	145.21
Water	33.57
Working From Home	68.94
<i>Total Net Emissions</i>	15,142.06

Uplift factors

Table 3

Reason for uplift factor	tonnes CO ₂ -e
N/A	
<i>Total footprint to offset (uplift factors + net emissions)</i>	15,142.06

Carbon neutral products

N/A

Electricity summary

Electricity was calculated using a Location-based approach.

The Climate Active team are consulting on the use of a market vs location-based approach for electricity accounting with a view to finalising a policy decision for the carbon neutral certification by July 2020. Given a decision is still pending on the accounting way forward, a summary of emissions using both measures has been provided for full disclosure and to ensure year on year comparisons can be made.

Market-based approach electricity summary

Table 4

Electricity inventory items	kWh	Emissions (tonnes CO ₂ e)
Electricity Renewables	2,651,141	0.00
Electricity Carbon Neutral Power	0	0.00
Electricity Remaining	11,576,440	12,515.29
Renewable electricity percentage	19%	
<i>Net emissions (Market based approach)</i>		12,515.29

Location-based summary

Table 5

State/ Territory	Electricity Inventory items	kWh	Full Emission factor (Scope 2 +3)	Emissions (tonnes CO ₂ e)
ACT/NSW	Electricity Renewables	4,811	-0.90	-4.33
ACT/NSW	Electricity Carbon Neutral Power	-	-0.90	0.00
ACT/NSW	Netted off (exported on-site generation)	-	-0.81	0.00
ACT/NSW	Electricity Total	14,227,581	0.90	12,804.82
	<i>Total net electricity emissions</i>		0.00	12,800.49

4. CARBON OFFSETS

Offset purchasing strategy: in arrears

Offsets summary

Table 7

1. Total offsets required for this report				15,143					
2. Offsets retired in previous reports and used in this report				0					
3. Net offsets required for this report				15,143					
Project description	Eligible offset units type	Registry unit retired in	Date retired	Serial number (including hyperlink to registry transaction record)	Vintage	Quantity (tonnes CO2-e)	Quantity used for previous report	Quantity to be banked for future years	Quantity to be used this report
Tiwi Islands Savanna Burning	ACCUs	ANREU	28 Oct 2020	3,772,962,929 – 3,772,966,778	2018-19	3,850	0	0	3,850
Mytrah Wind Power Project	VCUs	Verra	3 Nov 2020	7410-393192075-393193941-VCU-034-APX-IN-1-1521-01012019-01082019-0 7410-393102856-393106220-VCU-034-APX-IN-1-1521-01012019-01082019-0 7466-400407086-400413146-VCU-034-APX-IN-1-1521-01012019-01082019-0	2019	11,293	0	0	11,293
<i>Total offsets retired this report and used in this report</i>							15,143		
<i>Total offsets retired this report and banked for future reports</i>							0		

Co-benefits

Tiwi Islands, NT, Aboriginal Savanna Burning Project

Savanna burning the investment stays within First Nations communities. The savanna burning methodology reduces greenhouse gas emissions from hot bushfires. By burning in the early dry season when fires are cooler and patchy, and burning less country, there will be fewer emissions and an environmental/ecological benefit by protecting habitats.

Examples of environmental, social and cultural core benefits are:

- Elders sharing traditional ecological knowledge with young people;
- Protection of rock art and sacred sites;
- Protection of the environment by Aboriginal led land and sea management;
- Meaningful employment aligning with the interests and values of Traditional Owners; and
- Contribution to increased pride and self- esteem of Aboriginal people.

Mytrah Wind Power Project

As well as providing a source of clean energy, the Mytrah Energy Wind Power Project improves the overall well-being of local communities. The result of Mytrah's work is impressive and contributes to the United Nations Sustainable Development Goals as it provides employment, clean water and sanitation, improved agricultural techniques, and opportunities for everyone - including women and youth. Here are just a few examples.

Lifting poverty, increasing the income of farmers: Mytrah's contribution includes teaching better, more environmentally-sound methods of fodder cultivation and livestock development. Farmers benefit from higher yields of milk, and higher incomes.

Providing training for youth: New training programs help youth find meaningful employment. Areas of study include IT, electrician courses, motor repairs and dairy management.

Creating educational programs for gender equality: Opportunities for adolescent girls include coaching and life skill training. Mytrah facilitates Adolescent Girls Collectives with an aim to restore the rights of young women through parent and community-wide participation.

Building better healthcare systems: This initiative provides training for healthcare workers. One successful program teaches early diagnosis for common diseases such as hypertension and diabetes. Today there is a clinic and laboratory staffed with skilled volunteers. The project also captures digital data.

Clean water and sanitation: The Swachh Bharat Sanitation Project improves the health and quality of life for rural-based people in the region. The initiative educates communities in sanitation and cleanliness and provides the necessary infrastructure.

5. USE OF TRADE MARK

Table 8

Description where trademark used	Logo type
https://www.sydneyoperahouse.com/	Carbon Neutral Organization

APPENDIX 1

Excluded emissions

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	<i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions</i>	<i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i>	<i>Key stakeholders deem the emissions from a particular source are relevant.</i>	<i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i>	<i>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.</i>
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

Please advise which of the reasons applies to each of your non-quantified emissions. You may add rows if required.

Table 10

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

nationalregistry.cleanenergyregulator.gov.au/transaction/show/126188

- Projects
- Transaction Log
- CER Notifications
- Public Reports
- My Profile

Transaction ID AU16486

Current Status Completed (4)

Status Date 28/10/2020 14:24:35 (AEDT)
28/10/2020 03:24:35 (GMT)

Transaction Type Cancellation (4)

Transaction Initiator Foley, Rowan Paul Bulmer

Transaction Approver Foley, Rowan Paul Bulmer

Comment Retailed on behalf of Sydney Opera House for Climate Active Emissions for FY2019/20.

Transferring Account

Account Number AU-2798

Account Name Aboriginal Carbon Fund Limited

Account Holder Aboriginal Carbon Fund Limited

Acquiring Account

Account Number AU-1088

Account Name Australia Voluntary Cancellation Account

Account Holder Commonwealth of Australia

Transaction Blocks

Party	Type	Transaction Type	Original CP	Current CP	ERE Project ID	NGER Facility ID	NGER Facility Name	Safeguard #	Kyoto Project	Vintage	Expiry Date	Serial Range	Quantity
AU	KACCU	Voluntary ACCU Cancellation			ERE105045					2018-19		3,772,962,929 3,772,966,778	3,850