



PUBLIC DISCLOSURE STATEMENT

LENDLEASE BUILDING

**SERVICE CERTIFICATION
FY2019-20**

Australian Government
Climate Active
Public Disclosure Statement



An Australian Government Initiative



NAME OF CERTIFIED ENTITY: Lendlease Building Contractors Pty Ltd

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.

A handwritten signature in black ink, appearing to read "D Paterson".

Signature

Date 22 July 2021

David Paterson

Name of Signatory

Director

Position of Signatory



Australian Government

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

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1. CARBON NEUTRAL INFORMATION

Description of certification

Lendlease provides a Climate Active certified carbon neutral construction service to its Australian clients on an opt-in basis. The carbon neutral certification accounts for emissions associated with construction activities between the time of site establishment through to practical completion. Projects that commit to Climate Active certification are required to account for and offset their emissions on an annual basis for the entire duration of construction. The embodied carbon emissions associated with building materials are not included within the scope of this service certification.

The functional unit for this service certification is defined as one square meter of building gross floor area (GFA).

The following Lendlease Building projects are included within the Climate Active carbon neutral certification for FY19/20:

- Woodside Building for Technology and Design (VIC)
- 140 Lonsdale St (VIC)
- One Sydney Harbour – R1, R2 and R3 (NSW)
- New Performing Arts Venue (QLD)

This year's certification of One Sydney Harbour includes retroactive offsetting all greenhouse gas emissions associated with the remediation and basement construction phases from 2016-2020.

Organisation description

Lendlease is an international property and investments group with core expertise in shaping cities and creating strong and connected communities.

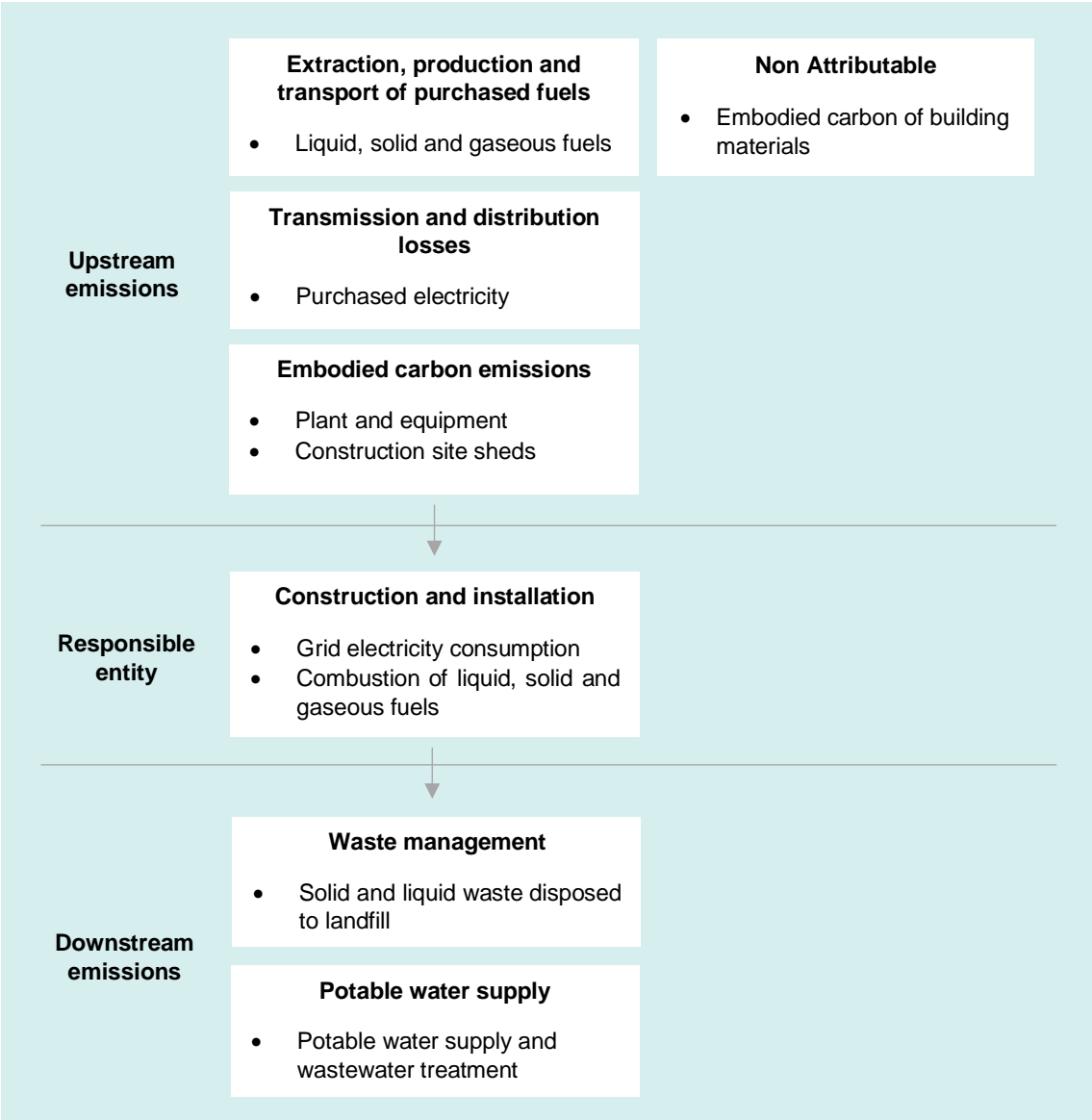
Founded in Sydney in 1958 by Dutch immigrant and innovator Dick Dusseldorp, Lendlease was born out of a vision to create a company that could successfully combine the disciplines of Development, Construction and Investments.

As one of Australia's top construction companies, Lendlease Building is recognised for market leading project management, design and construction services. We create award winning urban precincts, living options for any stage of life, retail precincts and workplaces to the highest sustainability standards.

“Lendlease has a long-held view that truly great places should deliver positive environmental and social outcomes, alongside financial value. We embarked on a journey with Climate Active to pioneer an opt-in carbon neutral construction service certification for our clients and projects”

Service process diagram

The following diagram is cradle to grave.

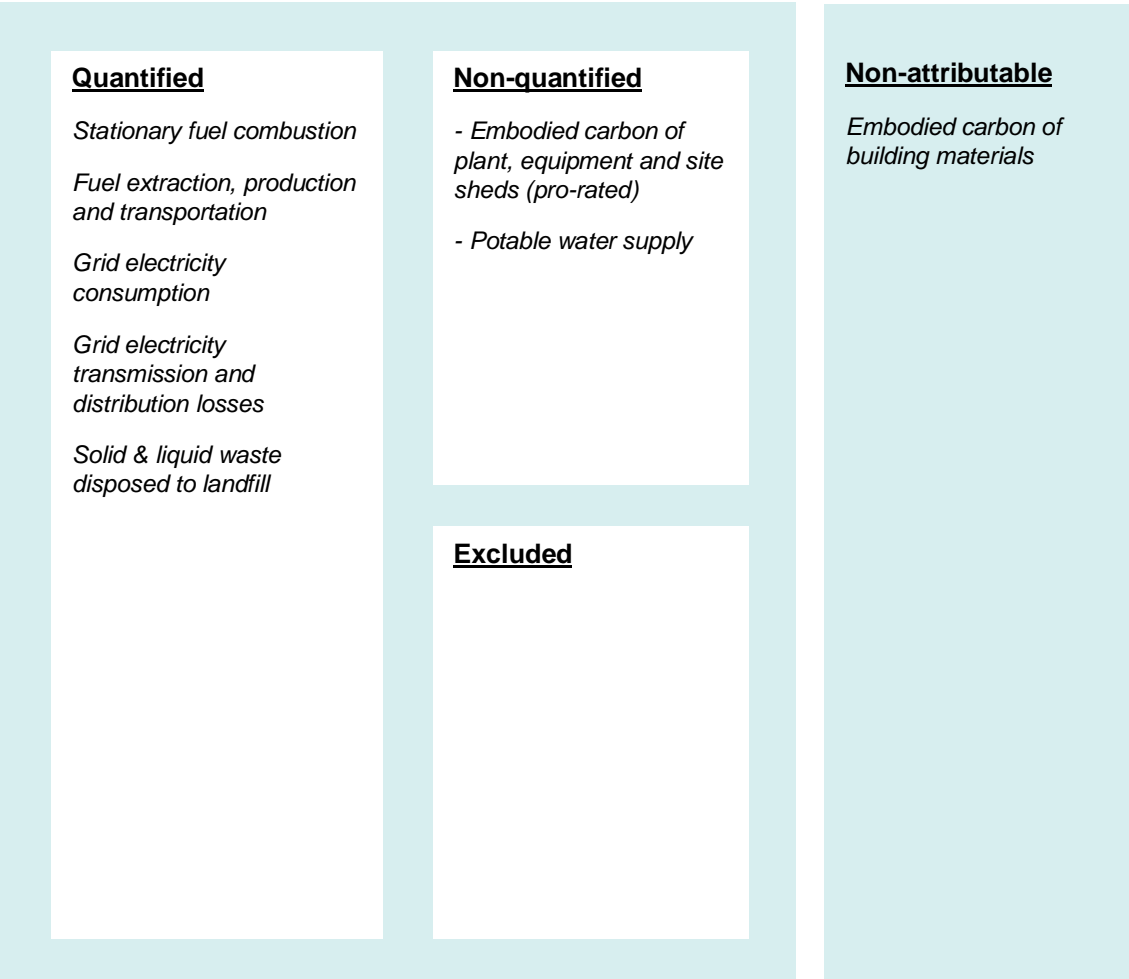


2. EMISSION BOUNDARY

Diagram of the certification boundary

Emission sources relevant to the delivery of a construction service have been identified in accordance with the Climate Active Carbon Neutral Standard for Products and Services. The key principle governing the emissions boundary of the service is that it must include all attributable processes – these are processes directly connected to the service and its ability to perform its function.

The construction service boundary has been established in accordance with building life cycle assessment standard EN15978¹ and encompasses all attributable processes associated with Module A5, with the additional inclusion of embodied carbon of construction plant, equipment and site offices as required by Climate Active.



¹ EN15978:2011 - Sustainability of construction works – Assessment of environmental performance of buildings – calculation method

Attributable non-quantified sources

The following listed emission sources have been deemed relevant to a construction service, however their quantification is not technically feasible, practical or cost effective relative to their significant.

- **Embodied carbon of plant, equipment and site sheds (pro-rated)** – Data is unavailable, but an uplift factor has been applied.
- **Potable water supply**– Emissions from mains water supply are considered immaterial to the overall carbon account.

Data management plan

A data management plan has been established for the attributable non-quantified sources listed as non-quantified due to data being unavailable plan; this includes:

- **Embodied carbon of plant, equipment and site sheds (pro-rated)** - Internal processes have been established to ensure projects maintain a record of the plant and equipment used on site throughout project duration. The records will detail specific manufacturers, models and the duration that plant and equipment are used on site to enable an assessment of the embodied carbon of plant and equipment.

“Climate Active certification provides a robust third party verification that our efforts to directly reduce emissions in construction have been realised and that residual emissions have been offset to achieve a carbon neutral outcome.”

Excluded sources (within certification boundary)

Not applicable.

Non attributable sources (outside certification boundary)

Non-attributable processes are defined by the *GHG Protocol – Product Standard (WBCSD and WRI,2011b)* as services, materials, and energy flows which are not directly connected to the studied product or service during its life cycle because they do not become the product or service. The following emission sources have been excluded from the carbon account as it has been assessed as non-attributable:

- **Embodied carbon of building materials** – The embodied emissions of building materials are considered non-attributable to the construction service. In the context of building life cycle assessment standard EN15978 *Sustainability of construction works – Assessment of environmental performance of buildings – calculation method*, this certification boundary encompasses the processes associated with Module A5. It is envisaged that Modules A1-A3 and A4, which account for embodied carbon of building products and their transport to site, will form part of a separate certification of the final building product.

3. EMISSIONS SUMMARY

Emissions reduction strategy

In August 2020, Lendlease announced their most ambitious climate change targets. The targets are fully aligned with the goals of the Paris Agreement and set a global benchmark for the real estate industry.

Lendlease has set a target to be a '1.5°C aligned company²', committing to:

- Net Zero Carbon by 2025 for Scope 1 emissions, produced directly from the fuels we burn, and Scope 2 emissions from the power we consume; and
- Absolute Zero Carbon by 2040, eliminating all emissions, including Scope 3 emissions generated indirectly from our activities, without the use of offsets.

Lendlease has defined five clear milestones to decarbonisation, these are:

1. Create a decarbonisation investment strategy in 2021
2. Phase out diesel and gas in our operations
3. Use 100% renewable electricity before 2030
4. Collaborate with supply chain partners to set pathways to zero carbon by 2040
5. Collaborate with our tenants and residents to transition to renewable electricity by 2040.

As part of the decarbonisation strategy, Lendlease Building has implemented a number of strategies that directly reduce emissions on construction sites, including the following:

- **Site Sustainability Standards** –Version 2 of Lendlease Building's Site Sustainability Standards were released in September 2020 and include revised minimum requirements that all projects must comply with to reduce environmental, economic and social impacts through energy and water efficiencies and operational management. The new standards include a "carbon badge" for projects that take substantial action to reduce and eliminate emissions.
- **The 'Shed Deal' Site Accommodation** – Lendlease has engaged with supply chain partners to agree a 'Shed Deal' which stipulates minimum requirements for all site accommodation provided to Lendlease projects. Site shed initiatives include but are not limited to: ensuring LED lighting to 95% of fittings, motion sensors for lightings, installation of door closers, tinted windows and blinds, and establishing minimum requirements for insulation and appliance energy star ratings.
- **Renewable Electricity** – Lendlease Building has committed to using 100% renewable electricity across all projects nationally from 2021 onward. This will be achieved via on-site renewable technologies as well as the purchase of renewable energy certificates.
- **Fuel Switching** – Lendlease Building remains committed to phasing out fossil fuel-based energy sources within our operations. Various projects have begun using biofuels, including the use of B5 and B20 biodiesel blends, within plant and equipment on construction sites.

² <https://www.lendlease.com/au/media-centre/media-releases/lendlease-pledges-new-sustainability-goals-of-net-zero-carbon-emissions/>

Emissions over time

The functional unit for this certification is defined as one square meter of building gross floor area (GFA). Due to the nature of construction projects spanning multiple years, the emissions generated within a single year is only attributed to construction of a portion of the building. To enable effective comparison of emissions over time, emission intensity will therefore be assessed and compared based on projects at practical completion. Table 1 below will be updated as projects reach practical completion, enabling comparison of emissions between projects and over time.

Table 1

Project	Practical Completion	FY16	FY17	FY18	FY19	FY20	Emissions Per Project (tCO ₂ -e)	Functional Unit (kgCO ₂ -e/m ² of GFA)
Woodside Building for Technology and Design (VIC)	2020	0	0	0	177*	561	738	38.84
140 Lonsdale St (VIC)	2021	0	0	0	0	91	91	Emissions per functional unit to be declared at practical completion
New Performing Arts Venue (QLD)	2022	0	0	0	0	147	147	
One Sydney Harbour - R1 (NSW) †	2022	0	0	0	0	1	1	
One Sydney Harbour - R2 (NSW) †	2022	0	0	0	0	0	0	
One Sydney Harbour - R3 (NSW) †	2024	0	0	0	0	0	0	
One Sydney Harbour - Remediation	Part of R1, R2 R3	762	1,667	1,235	1,446	150	5,260	Emissions per functional unit to be declared at practical completion
One Sydney Harbour - Basement	Part of R1, R2 R3	0	0	849	2,160	1,457	4,466	
Total Emissions Per Financial		762	1,667	2,084	3,783	2,407	10,703	

* The FY19 emissions associated with the Woodside Building for Technology and Design were offset by Lendlease Building in the FY19 reporting period. When excluded from the carbon inventory, the residual emissions to be offset in FY20 is 10,526 tCO₂-e.

† The three One Sydney Harbour residential apartment towers, R1, R2 and R3, sit above a shared basement. The emissions generated from the One Sydney Harbour remediation and basement phases will be apportioned to each tower based on their respective gross floor area.

Emissions reduction actions

The following initiatives have been implemented as emission reduction actions within this reporting period:

- All project site sheds / site offices have included energy efficient appliances with a star rating of no lower than two stars from the highest possible rating as determined on www.energyrating.gov.au
- Site sheds are fitted with HVAC motion sensor systems that will automatically switch on or off the heating and cooling to site shed areas.
- Construction sites have implemented measures to improve fuel use efficiency by implementing efficient driving operation and productivity strategies that reduce the quantum of fuel used during the construction period.
- B5 biodiesel blends have been used within construction plant and equipment on the 140 Lonsdale St project.
- Hybrid and electric cranes have been used on the New Performing Arts Venue (NPAV) site.

Emissions summary (inventory)

The table below summarises the Lendlease Building inventory for the FY19/20 reporting period. The carbon inventory reported below also includes FY16-FY19 emissions from the One Sydney Harbour remediation and basement construction phases, which are retroactively offset in this reporting period. The following table outlines the carbon inventory prior to applying uplift factors.

Table 3 – Carbon Inventory (tonnes CO₂-e)

Emission Source	tonnes CO ₂ -e
<i>FY16 – Stationary energy, electricity (location-based), waste disposed to landfill</i>	747
<i>FY17 – Stationary energy, electricity (location-based), waste disposed to landfill</i>	1,634
<i>FY18 – Stationary energy, electricity (location-based), waste disposed to landfill</i>	2,043
<i>FY19 – Stationary energy, electricity (location-based), waste disposed to landfill</i>	3,535
<i>FY20 – Stationary energy, electricity (location-based), waste disposed to landfill</i>	2,361
Carbon Footprint (Prior to applying uplift factors)	10,320

Uplift factors

The following uplift factors have been applied to account for attributable non-quantified sources of emissions where data is unavailable.

Table 4

Reason for uplift factor	tonnes CO ₂ -e
Embodied carbon of plant, equipment, and site offices (2% uplift)	206
<i>Total uplift factors</i>	2%
Total to offset (Carbon footprint + total uplift factors)	10,526

Carbon neutral products

Not applicable.

4. CARBON OFFSETS

Offset purchasing strategy: Forward purchasing.

Forward purchasing has been used to claim carbon neutrality for the FY19-20 reporting period. This is detailed in Table 5 below.

Table 5

Forward purchasing summary	
1. Total offsets previously forward purchased for this reporting period	473
2. Total offsets required for this reporting period	10,526
3. Net offset balance for this reporting period	10,053
4. Total offsets to be forward purchased for next reporting period*	1,742

*The quantity of offsets forward purchased for the next reporting period is less than this year's reported total due to the anticipated emission reductions achieved from purchasing 100% renewable electricity for all construction projects nationally.

Offsets summary

Table 6

1. Total offsets required for this report						10,526				
2. Offsets retired in previous reports and used in this report						473				
3. Net offsets required for this report						10,053				
Offset Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Quantity (tonnes CO2-e)	Quantity used in previous report	Quantity banked for future years	Quantity used in this report	Lendlease Projects
Akbuk Wind Farm Project, Turkey	GS VER	Gold Standard	19 Dec 2019	GS1-1-TR-GS436-12-2015-7440-6573-6882	2015	310	177	0	133	Woodside Building for technology and Design (VIC) – 133 units
Ceramic water Purifier, Cambodia	GS VER	Gold Standard	19 Dec 2019	GS1-1-KH-GS1020-16-2013-3699-61-100	2013	40	0	0	40	Woodside Building for technology and Design (VIC) – 40 units
Tongliao Biomass Power Plant	GS VER	Gold Standard	19 Dec 2019	GS1-1-CN-GS2502-9-2017-6569-38717-39016	2017	300	0	0	300	Woodside Building for technology and Design (VIC) – 300 units
Bundled Wind Power project in Tamil Nadu managed by Enercon India Limited I	VCU	VCS/Verra	10 Dec 2020	5369-228192684-228201781-VCU-050-APX-IN-1-281-08122015-07122016-0	2015	9098	0	0	6209	Woodside Building for technology and Design (VIC) – 88 units One Sydney Harbour (NSW) – 6121 units <i>The remaining 2,889 units were used to voluntarily offset other Lendlease projects</i>

Colodan Great Barrier Reef, Australia	KACCU	ANREU	20 Aug 2019	3,784,686,654 - 3,784,689,653	2018-19	3,000	0	0	3,000	One Sydney Harbour (NSW) – 3000 units
Hezhang Rural Methane Digesters Project in Guizhou	GS VER	Gold Standard	20 Aug 2019	GS1-1-CN-GS2640-4-2016-17447-23502-26001	2016	2500	0	0	606	One Sydney Harbour (NSW) – 606 units <i>The remaining 1894 units were used to voluntarily offset other Lendlease projects</i>
Colodan Great Barrier Reef, Australia	KACCU	ANREU	10 Dec 2020	3,807,117,401 - 3,807,119,380	2020-21	1980	0	1,742	238	140 Lonsdale St (VIC) – 91 units New Performing Arts Venue (QLD) – 147 units <i>The remaining 1,742 units have been banked for future Climate Active certifications</i>
Total offsets retired this report and used in this report									10,526	
Total offsets retired this report and banked for future reports									1,742	

- Lendlease Building provides a carbon neutral construction service for all projects nationally based on reportable Scope 1 and 2 emissions under National Greenhouse and Energy Reporting (NGER), and work with clients to gain Climate Active certification on an opt-in approach. The projects listed have voluntarily offset their additional Scope 3 emissions in order to achieve Climate Active certification.

- A hyperlink to the ANREU transaction records is not available. Evidence of offset retirements have been provided to Climate Active.

Co-benefits

Colodan Native Forest Project, Great Barrier Reef

The Great Barrier Reef’s water quality is under serious threat by land-based activities such as farming along the coastline. Water runoff from farms flushes fertilizers, pesticides and soil into rivers and onto the reef with dire consequences for corals, sea grasses and marine wildlife.

The Colodan Native Forest Project located between Gladstone and Bundaberg, Queensland, will regenerate nearly 3,000 hectares of natural woodland, including endangered Brigalow forest, and will protect around 500 hectares of established native forest from being cleared.

Sustainable management of the property is improving soil health and water retention, helping to reduce erosion and run off within the Burnett catchment. The project is further securing crucial habitat for native wildlife and will support 98 threatened plant and animal species including the koala, brush-tailed rock wallaby, northern brown bandicoot, echidna and sugar glider.

This project contributes to 31% of the total of offsets purchased and retired for this reporting period.

5. USE OF TRADE MARK

Table 7

Description where trademark used	Logo type
Lendlease Website	Certified Service

6. ADDITIONAL INFORMATION

Woodside Building for Technology and Design (VIC)

Emission source category	FY16	FY17	FY18	FY19	FY20
Stationary Energy	-	-	-	77	77
Purchased Electricity	-	-	-	97	397
Waste disposed to landfill	-	-	-	3	77
Embodied carbon of plant and equipment (2% uplift)	-	-	-	-	11
Gross Emissions (tCO2-e)	-	-	-	177	561

140 Lonsdale St (VIC)

Emission source category	FY16	FY17	FY18	FY19	FY20
Stationary Energy	-	-	-	-	70
Purchased Electricity	-	-	-	-	12
Waste disposed to landfill	-	-	-	-	7
Embodied carbon of plant and equipment (2% uplift)	-	-	-	-	2
Gross Emissions (tCO2-e)	-	-	-	-	91

New Performing Arts Venue (QLD)

Emission source category	FY16	FY17	FY18	FY19	FY20
Stationary Energy	-	-	-	-	6
Purchased Electricity	-	-	-	-	3
Waste disposed to landfill	-	-	-	-	136
Embodied carbon of plant and equipment (2% uplift)	-	-	-	-	3
Gross Emissions (tCO2-e)	-	-	-	-	147

One Sydney Harbour – Remediation (NSW)					
Emission source category	FY16	FY17	FY18	FY19	FY20
Stationary Energy	277	1,397	806	999	52
Purchased Electricity	9	111	352	13	-
Waste disposed to landfill	461	125	52	405	95
Embodied carbon of plant and equipment (2% uplift)	15	33	24	28	3
Gross Emissions (tCO₂-e)	762	1,667	1,235	1,446	150

One Sydney Harbour – Basement (NSW)					
Emission source category	FY16	FY17	FY18	FY19	FY20
Stationary Energy	-	-	-	152	742
Purchased Electricity	-	-	833	1,966	658
Waste disposed to landfill	-	-	-	-	28
Embodied carbon of plant and equipment (2% uplift)	-	-	17	42	29
Gross Emissions (tCO₂-e)	-	-	849	2,160	1,457

One Sydney Harbour – R1 (NSW)					
Emission source category	FY16	FY17	FY18	FY19	FY20
Stationary Energy	-	-	-	-	1
Purchased Electricity	-	-	-	-	-
Waste disposed to landfill	-	-	-	-	-
Embodied carbon of plant and equipment (2% uplift)	-	-	-	-	-
Gross Emissions (tCO₂-e)	-	-	-	-	1

APPENDIX 1

Non-attributable emissions for products and services

Relevance has been determined in accordance with the criteria defined by the Climate Active Carbon Neutral Standard for Products and Services. To be deemed attributable an emission must meet two of the five relevance criteria. Non-attributable emissions are detailed below against each of the five criteria.

Table 8

Relevance test					
Non-attributable emission	<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>
Embodied carbon of building materials	Yes	No	No	No	No

APPENDIX 2

Non-quantified emissions for products/services

Table 9

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>
Embodied carbon of construction plant, equipment and site sheds	No	Yes	Yes	No
Potable water supply	Yes	No	No	No