Australian Government

Climate Active Program

# Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY: NEXTDC Limited

REPORTING PERIOD: 1 July 2018 to 30 June 2019

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 31 January 2020 |
| Name of Signatory | Alex Teo |
| Position of Signatory | Vice President, Strategy & Investor Relations |

Australian Government
Department of the Environment and Energy

# CLIMATE ACTIVE PROGRAM

PUBLIC DISCLOSURE STATEMENT

# TABLE OF CONTENTS

# 1. Carbon neutral information

## Description of certification

NEXTDC is certified Carbon Neutral by Climate Active for its Australian corporate operations under the Climate Active Carbon Neutral Standard for organisations. This certification does not include the electricity consumed by customer servers.

Based on an operational consolidation approach, the organisational carbon inventory boundary includes NEXT DC's head office in Brisbane and all operational data centres (referred to as facilities); B1 (Brisbane), B2, C1 (Canberra), M1 (Melbourne), M2, P1 (Perth), and S1 (Sydney). Other facilities that came online throughout the reporting period were considered for the timeframe they were in operation (Facility S2 and P2). P2 is still under construction with no dedicated staff, only a small portion of the site was being used by NEXTDC during FY19.

The reporting period for this inventory is 1 July 2018 to 30 June 2019 (FY19). This is the second inventory under the Standard and the baseline has been independently assured (FY18) to support the validity and transparency of the carbon neutral claim.

## Organisation description

NEXTDC Limited ("NEXTDC") is a public technology company listed on the Australian Securities Exchange as part of the ASX200 with revenues of $179.3 million in the financial year 2018/19 (up 11% from FY18), serving over 1,184 customers and over 550 partners.

NEXTDC is Australia's leading independent data centre operator with facilities across five capital cities including Brisbane, Canberra, Melbourne, Perth and Sydney with its headquarters being in Brisbane. It delivers Data Centre-as-a-Service solutions to its partners and customers, including colocation and connectivity solutions along with professional services such as Remote Hands technical assistance, business continuity and infrastructure management software. On 30 June 2019, NEXTDC contracted over 52.5 MW power utilisation and supported 10,972 interconnections.

With a focus on sustainability and renewable energy, NEXTDC delivers industry leading engineering solutions that champion innovative technologies designed to deliver our customers with levels of energy efficiency that have never before achieved in the Australian data centre industry. For further information regarding NEXTDC's Investor Relations activities visit: https://www.nextdc.com/our-company/investor-centre.

NEXTDC's vision is to improve society through the advancement of technology and it is committed to delivering greater energy efficiencies and sustainable initiatives across its entire footprint. Climate change is one of the most challenging and complex issues facing the planet. NEXTDC recognises the need to continuously work towards building a sustainable environment, building resilience against the impacts of the changing climate and exploring new opportunities that arise as a result, including also supporting its customers' efforts to reduce their own carbon footprint.

For NEXTDC, Environmental Sustainability is about ensuring it focuses attention on measurable objectives to reduce the environmental impact of its data centres, including but not limited to:

- Design, commission and tune Mechanical and Electrical Plant (MEP) to maximise energy efficiency
- Reduce the risk of an environmental incident
- Minimise carbon emissions
- Minimise landfill contribution
- Minimise water usage
- Ethical treatment, recycling and/or disposal of industrial waste

### Emissions reduction strategy

Emission reduction actions are continually reviewed. The following environmental objectives were established for FY19:

- Design, commission and tune MEP to maximise energy efficiency
- Minimise carbon emissions
- Minimise landfill contribution
- Minimise water usage
- Ethical treatment, recycling and/or disposal of industrial waste

NEXTDC is dedicated to the continuous monitoring and improvement of the management of its data centres. It is committed to:

- Delivering the highest levels of energy efficiency
- Minimising its impact on the environment and natural resources, and
- Meeting and exceeding the minimum environmental legislative requirements.

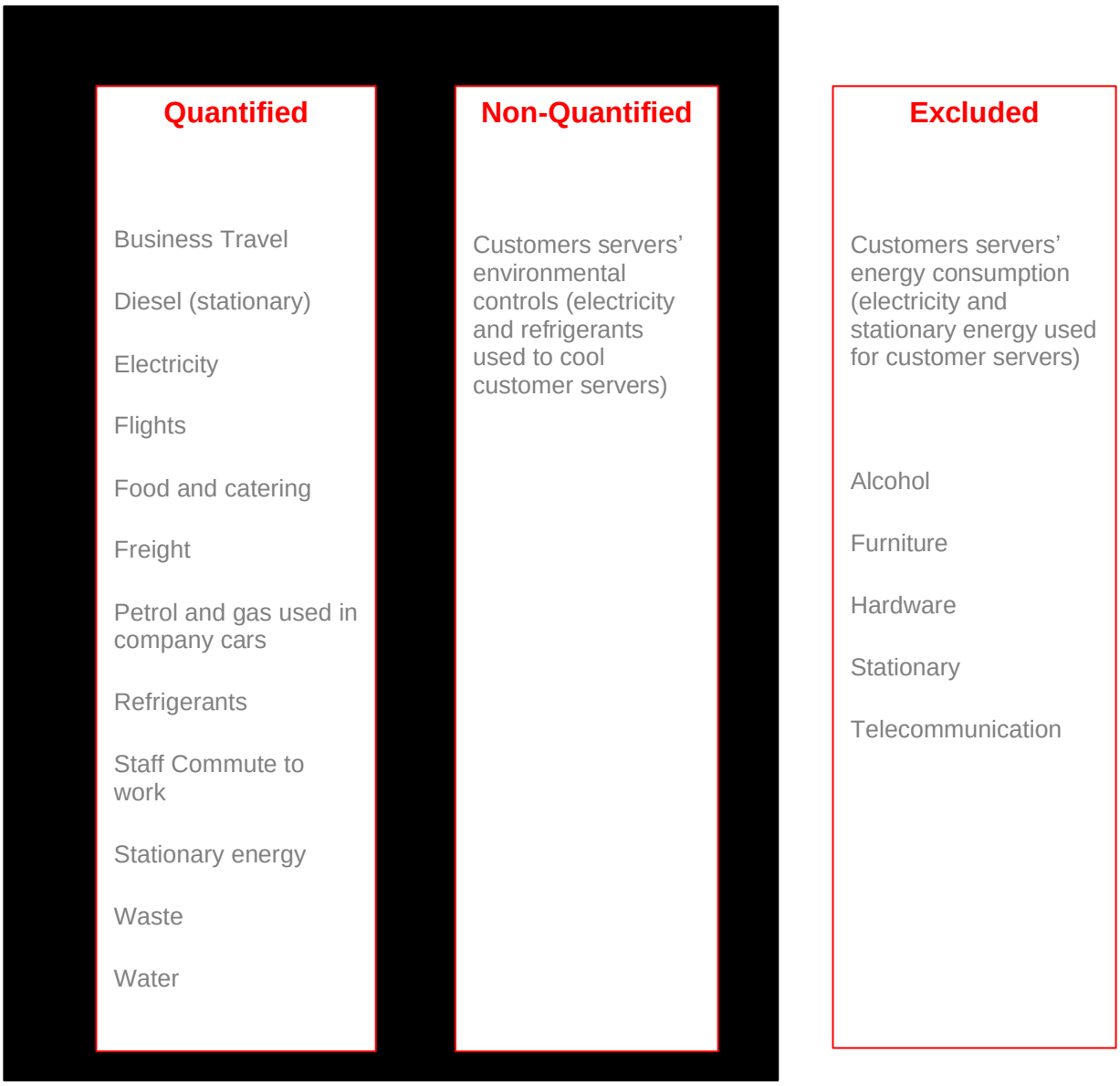
NEXTDC's Energy and Environmental Policy has been established to achieve the above by setting meaningful and achievable objectives and targets, overseen by NEXTDC management.

NEXTDC customers and data centres will have increasing IT power requirements year-on-year. NEXTDC controls the non-IT power usage portion of the data centre environment. The performance of this is measured through the Power Usage Effectiveness (PUE) rating metric for each of its data centres. In FY19 NEXTDC's average PUE across all data centres was 1.30. This represents a decrease of 3% from the previous period and aligns with corporate environmental objectives, to achieve a target PUE rating of below 1.40 in every data centre. For further information regarding NEXTDC's Environmental Sustainability policy and activities visit: https://www.nextdc.com/data-centres/environmental-sustainability

# 2. Emission Boundary

According to the Climate Active Standard, section 2.3.1. for an organisation, the emissions boundary must include all relevant emissions sources. This includes all emissions under the direct control or ownership of an organisation, as well as emissions that are a consequence of the organisation's activities but outside of its direct ownership or control.

## Diagram of the certification boundary



## Materiality and Relevance Tests

Next DC assessed the materiality and relevance of identified emission sources in line with the Climate Active Standard. The criterion of relevance is adapted from the GHG Protocol – Corporate Standard ensures the carbon account appropriately reflects the emissions of the organisation and meets the expectations of consumers and stakeholders – both internal and external to the organisation. More information on materiality and relevance of the emission sources below.

*Table 1: Climate Active Materiality and Relevance Test for NEXTDC Emission Sources*

| Scope | Emission Source | Materiality | Relevance | Inclusion in Boundary | Relevance Test* | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1) | 2) | 3) | 4) | 5) |
| 1 | Diesel combustion for stationary energy for customer's servers | ✓ | ✗ | excluded | ✓ | ✗ | ✗ | ✗ | ✗ |
| 1 | Refrigerants used to cool customer's servers | ✓ | ✓ | relevant-non-quantified | ✓ | ✗ | ✓ | ✗ | ✗ |
| 2 | Electricity used in customer's servers | ✓ | ✗ | excluded | ✓ | ✗ | ✗ | ✗ | ✗ |
| 2 | Electricity used to cool customer's servers | ✓ | ✓ | relevant-non-quantified | ✓ | ✗ | ✓ | ✗ | ✗ |
| 3 | Food | ✓ | ✓ | relevant-quantified | ✗ | ✗ | ✓ | ✓ | ✗ |
| 3 | Beverages & Alcohol | ✓ | ✗ | excluded | ✗ | ✗ | ✗ | ✓ | ✗ |
| 3 | Furniture | ✗ | ✗ | excluded | ✗ | ✗ | ✗ | ✓ | ✗ |
| 3 | Hardware | ✗ | ✗ | excluded | ✗ | ✗ | ✓ | ✗ | ✗ |
| 3 | Stationary | ✗ | ✗ | excluded | ✗ | ✗ | ✗ | ✗ | ✗ |
| 3 | Telecommunication | ✗ | ✗ | excluded | ✗ | ✗ | ✓ | ✗ | ✗ |

** Do the emissions meet two or more Relevance Test criteria or is it always relevant? See test details above in Relevance Test*

1) *Are the emissions likely to be large (~10%) relative to the organisation's electricity, stationary energy and fuel emissions?*
2) *Do the emissions contribute to the organisation's greenhouse gas risk exposure i.e. will the impacts of climate change pose a serious risk to the viability of this emission source over a timeframe suitable to the responsible entity?*
3) *Are these emissions deemed relevant or important by key stakeholders?*
4) *Does the responsible entity have the potential to influence the reduction of emissions from this source?*
5) *Are these emissions from outsourced activities that were previously undertaken within the organisation's boundary or from outsourced activities that are typically undertaken within the boundary for comparable events?*

## Non-quantified sources

The following items have been **included in the inventory boundary, and not quantified**:

1) Electricity used to cool customer servers
2) Refrigerants used to cool customers servers

Additional notes for items 1 and 2): The application of the relevance test has determined that emissions associated with the thermal aspects of environmental control (i.e. the operation of air conditioner units) of customer servers are within NEXTDC's operational control and therefore considered relevant for all entities. These emissions have not been quantified to date due data availability as the practicability of apportioning electricity consumption sufficiently robust to this activity is part of the broader exercise of the development of a carbon neutral data service. Climate Active requires an uplift factor to be applied to relevant, non-quantified emissions from FY23/24. In the meanwhile, NEXTDC will operationalise and refine this calculation within a separate *Climate Active* product certification made available to its customers as an opt-in service and revisit the non-quantification based on the experience gained.

## Excluded sources (outside of certification boundary)

The following items have been **excluded from the boundary**:

1) Electricity used in customers servers (hosted within NEXTDC facilities) – material & not relevant
2) Diesel combustion for stationary energy for stationary energy for customer's servers - material, not relevant
3) Beverages & Alcohol - immaterial & not relevant
4) Furniture - immaterial & not relevant
5) Hardware - immaterial & not relevant
6) Stationary - immaterial & not relevant
7) Telecommunication - immaterial & not relevant

Additional notes for items 1 and 2): Emissions associated with consumption of servers (electricity and stationary energy) are fully considered outside of NEXTDC's control and therefore not considered relevant as per the determinations of the Climate Active Standard. NEXTDC does not prescribe customers' set up, customers select and install their own IT equipment, including model and load, which directly determines electricity consumption (and associated heat production driving cooling demand). NEXTDC customers also control whether they switch on their equipment or not, and how much equipment they switch on. NEXTDC has no control over

this. Customers contract with NEXTDC for the right to determine what they plug in, how much they plug in and when they choose to do so. The scenario is directly comparable to the electricity network providers. Up to the capacity limit of the infrastructure, actual power usage is entirely in the control of the end-customer, not the power network. Clients pay NEXTDC for their metered power usage. As such, these emission sources are deemed outside the certification boundary.

As mentioned previously, NEXTDC will be offering its customers the opportunity to purchase a carbon neutral data centre service, which will be certified against the Climate Active Carbon Neutral Standard for service.

# 3. Emissions summary

**Table 3: Emissions Summary**

| Emission source category | tonnes $CO_2$-e |
|---|---|
| Diesel (stationary) | 1 |
| Refrigerants | 7 |
| Electricity | 4,526 |
| Business Travel | 134 |
| Flights | 594 |
| Freight | 210 |
| Staff Commute | 231 |
| Waste | 16 |
| Water | 0 |
| Food and catering | 147 |
| **Total Net Emissions** | **5,866** |

### Uplift factors

**Table 4. Uplift factors**

| Reason for uplift factor | tonnes CO2-e |
|---|---|
| No uplift factor applied | 0 |
| **Total Footprint to offset (uplift factors + net emissions)** | **5,866** |

## Carbon Neutral products

This account has been prepared by Ndevr Environmental who provide Climate Active certified carbon neutral services.

## 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 have been provided for full disclosure and to ensure year on year comparisons can be made.

**Table 5. Market based approach Electricity summary**

| Electricity Inventory Items | Kwh | Emissions Tonnes Co2e |
|---|---|---|
| Electric Renewables | 852,675 | 0.00 |
| Electricity Carbon Neutral Power | 0 | 0.00 |
| Electricity Remaining | 3,731,598 | 4,034 |
| Renewable Electricity Percentage | 19% | |

**Table 6: Location based summary**

| State/Territory | Electricity Inventory Items | Emissions (tonnes CO2e) |
|---|---|---|
| ACT/NSW | Electricity Renewables | 0 |
| ACT/NSW | Electricity Carbon Neutral Power | 0 |
| ACT/NSW | Netted off (exported on-site generation) | 0 |
| ACT/NSW | Electricity Total | 1,861 |
| VIC | Electricity Renewables | 0 |
| VIC | Electricity Carbon Neutral Power | 0 |
| VIC | Netted off (exported on-site generation) | 0 |
| VIC | Electricity Total | 1,951 |
| WA | Electricity Renewables | 0 |
| WA | Electricity Carbon Neutral Power | 0 |
| WA | Netted off (exported on-site generation) | 0 |
| WA | Electricity Total | 227 |
| QLD | Electricity Renewables | 0 |
| QLD | Electricity Carbon Neutral Power | 0 |
| QLD | Netted off (exported on-site generation) | 0 |
| QLD | Electricity Total | 486 |
| **Total net electricity emissions (Location based)** | | **4,526** |

In Victoria, the M1 data centre produces renewable energy via a 400kW solar system. The meter that records the solar generation was malfunctioning during the reporting period, therefore has been treated as 0 (although estimated to have generated approximately 489,664kWh). The meter was replaced in June 2019. Actual solar generated, and the amount that is exported to the grid will be reported in future reporting periods.

# 4. Carbon offsets

## Offset purchasing strategy

Offset purchasing will be done in arrears. NEXTDC has ongoing arrangements in place to purchase offsets for the purpose of Climate Active Organisation certification through the Qantas Future Planet program. Offsets will be purchased and retired annually.

**Table 7: Offsets Summary**

| | |
|---|---|
| 1. Total offsets required for this report | 5,866 |
| 2. Offsets retired in previous reports and used in this report | 0 |
| 3. Net offsets required for this report | 5,866 |

| Project description | Eligible offset units' | Registry unit retired in | Date retired | Serial number (including hyperlink to registry transaction | Vintage | Quantity (tonnes CO2-e) | Quantity to be banked for future years | Quantity to be used this report |
|---|---|---|---|---|---|---|---|---|
| Wind Power Project in Tirupur District, VCU | VCUs | APX | 29/10/2019 | 6884-356378599-356383014-VCU-050-APX-IN-1-1163-01012017-31122017-0 | 2017 | 4,416 | 155 | 4261 |
| Colodan Great Barrier Reef, KACCU | KACCU | CER | 30/10/2019 | 3,784,689,654 - 3,784,691,153 | 2018-19 | 1,500 | 0 | 1500 |
| WALFA, KACCU | KACCU | CER | 30/10/2019 | 3,769,405,028 - 3,769,405,119 & 3,769,458,630 - 3,769,458,642 | 2017-18 | 105 | 0 | 105 |
| **Total offsets retired this report and used in this report** | | | | | | | | **5,866** |
| **Total offsets retired this report and banked for future reports** | | | | | | | **155** | |

## Co-benefits

### West Arnhem Land Fire Abatement (WALFA) Project

ALFA (NT) Limited delivers the WALFA project. ALFA is a not-for-profit company owned exclusively by Aboriginal people with custodial responsibility for those parts of Arnhem Land under active bushfire management. The company was created by Landowners and the Indigenous ranger groups operating the fire projects in Arnhem Land to support Indigenous land

management with funding generated through the sale of Australian Carbon Credit Units. The purchase of ALFA generated ACCUs supports Aboriginal people in returning to, remaining on and managing their country, the protection of biodiversity, the preservation and transfer of knowledge, the maintenance of Aboriginal languages and the wellbeing of traditional custodians (Source Carbon Market Institute 2019). The project types stated here relate to 0.02 per cent of the total amount of offsets purchased and retired for this reporting period.

### Colodan Great Barrier Reef project

The Colodan Reef Project located 8.5km north-west of Rawbelle, Queensland. The project encourages natural forest regrowth, habitat regeneration, and improved water quality in the Burnett catchment area. The Burnett Catchment flows directly through Bundaberg before joining the Coral Sea. The project is also in partnership with Douglas Shire Council and has the potential to increase the council's sustainable tourism credentials and build positive relationships with local businesses and tourism operators. The project types stated here relate to 26 per cent of the total amount of offsets purchased and retired for this reporting period.

### Wind Power Project in Tirupur District

The project would help in generating employment opportunities during the construction and operation phases. The project participant will contribute 2% of net revenue realised from sale of certified emission reductions towards community development initiatives. The project is a clean technology investment in the region and will help to reduce the demand supply gap in the state. It will generate power using zero emissions, wind-based power generation which helps to reduce GHG emissions and specific pollutants like SOx, NOx, and SPM associated with the conventional thermal power generation facilities. The project activity will indirectly help in conserving natural resource like forest, ecosystems by using renewable wind resource to generate power (Source Verified Carbon Standard (VCS) Project Description).

# 5. Use of trademark

## Table 5

| Description where trademark used | Logo type |
|---|---|
| Sustainability report | Certified Organisation |
| Website | Certified Organisation |
| Business cards and stationery | Certified Organisation |
| Marketing materials (online and print) | Certified Organisation |
| Email signature | Certified Organisation |
| LinkedIn | Certified Organisation |
| Newsletters | Certified Organisation |

# 6. Additional information

## WEB CONTENT

https://www.nextdc.com/data-centres/environmental-sustainability

https://www.nextdc.com/blog/staying-focused-data-centre-sustainability

https://www.nextdc.com/blog/australias-first-data-centre-100-carbon-neutral-corporate-operations

https://www.nextdc.com/news/australias-first-nabers-5-star-rated-data-centre

https://www.nextdc.com/news/nextdc-s1-sydney-achieves-nabers-5-star-rating

https://www.nextdc.com/news/harnessing-wind-power-cloud

## VIDEOS

https://www.youtube.com/watch?v=yb-clITneLY

https://www.youtube.com/watch?v=V9PsXWijAI0