



PUBLIC DISCLOSURE STATEMENT


NEXTDC LIMITED

SERVICE CERTIFICATION

FY2022–23

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY	NEXTDC Limited
REPORTING PERIOD	1 July 2022 – 30 June 2023 Arrears report
DECLARATION	<p><i>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.</i></p>  <p>Nishi Vissamraju Head of Sustainability 01/07/2024</p>



Australian Government
**Department of Climate Change, Energy,
the Environment and Water**

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Version: August 2023



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	1,518 tCO ₂ -e
THE OFFSETS USED	7% ACCUs, 93% CERs
RENEWABLE ELECTRICITY	19.43%
CARBON ACCOUNT	Prepared by: Ndevr Environmental Pty Ltd
TECHNICAL ASSESSMENT	Date: 18 December 2023 (FY2023) Organisation: Ndevr Environmental Pty Ltd Next technical assessment due: FY 2026

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2. CARBON NEUTRAL INFORMATION

Description of certification

This carbon neutral certification is for the Australian business operations of NEXTDC Limited, ABN 35 143 582 521, under the Climate Active Carbon Neutral Standard for services. NEXTDC's service certification is for NEXTDC's data centre services to Australian customers.

The reporting period for this service inventory is 1 July 2022 to 30 June 2023 (FY23) and based on an **operational control approach**, the boundary of the organisational inventory includes NEXTDC's head office in Brisbane and all operational data centres (referred to as facilities); B1 & B2 (Brisbane), C1 (Canberra), M1, M2 & M3 (Melbourne), P1 & P2 (Perth), S1, S2 & S3 (Sydney), and SC1 (Sunshine Coast). During FY23 the M3, and S3 facilities began operations in September and October 2022, respectively.

NEXTDC is also a certified carbon-neutral organisation under the Australian Government's Carbon Neutral Initiative since FY2019. We have ensured that the emission boundary for service emissions to our customers does not overlap with emission sources associated with NEXTDC's organisational operations.

Service description

NEXTDC offers connectivity and colocation solutions to our customers via an as-a-service model, with power, security and connectivity provided to clients. Standard rack rental includes a power allocation provided in kW. Racks are installed in the data halls and connected to redundant power sources ready for the clients to install and operate their equipment with 100% uptime guaranteed.

The data centres and the environment around the servers are under the operational control of NEXTDC, yet the demand for data services is driven by the customers' usage. Activity data for electricity can be readily attributed to either corporate operations or specific customers, as racks of servers are allocated to specific customers.

The functional unit for the service certification is calculated on a cradle-to-grave basis and is tCO₂e/kW of server capacity. To establish the emission factor per functional unit, the certification uses FY18 as the baseline year, which was not offset.

NEXTDC's customer carbon offset program, NEXTneutral was launched in March 2021 and is an opt-in service offered to our customers.

3. EMISSIONS BOUNDARY

Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

Quantified emissions have been assessed as 'attributable processes' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable emissions have been quantified in the carbon inventory.

Non-quantified emissions have been assessed as attributable and are captured within the emissions boundary but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

Outside the emissions boundary

Non-attributable emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and, therefore, have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.

Inside emissions boundary

Quantified

Business machines and equipment repair, customer load

Diesel, stationary energy, customer load

Electricity, purchased from the grid, customer server cooling

Electricity, purchased from the grid, customer server usage

Electricity, solar generation

Facility maintenance and repairs, customer load

ICT services, customer load

IT hardware - rack housing

IT hardware - servers and switches

Packaging - server racks, cardboard

Packaging - server racks, plastic

Professional services, customer load

Refrigerant fugitives, customer server cooling

Waste, cardboard recycling, customer load

Waste, co-mingled recycling, customer load

Waste, electrical (WEEE), customer load

Waste, landfill, customer load

Water, customer server cooling

Non-quantified

Freight – upstream (Rack transportation)

Optionally included

N/A

Outside emission boundary

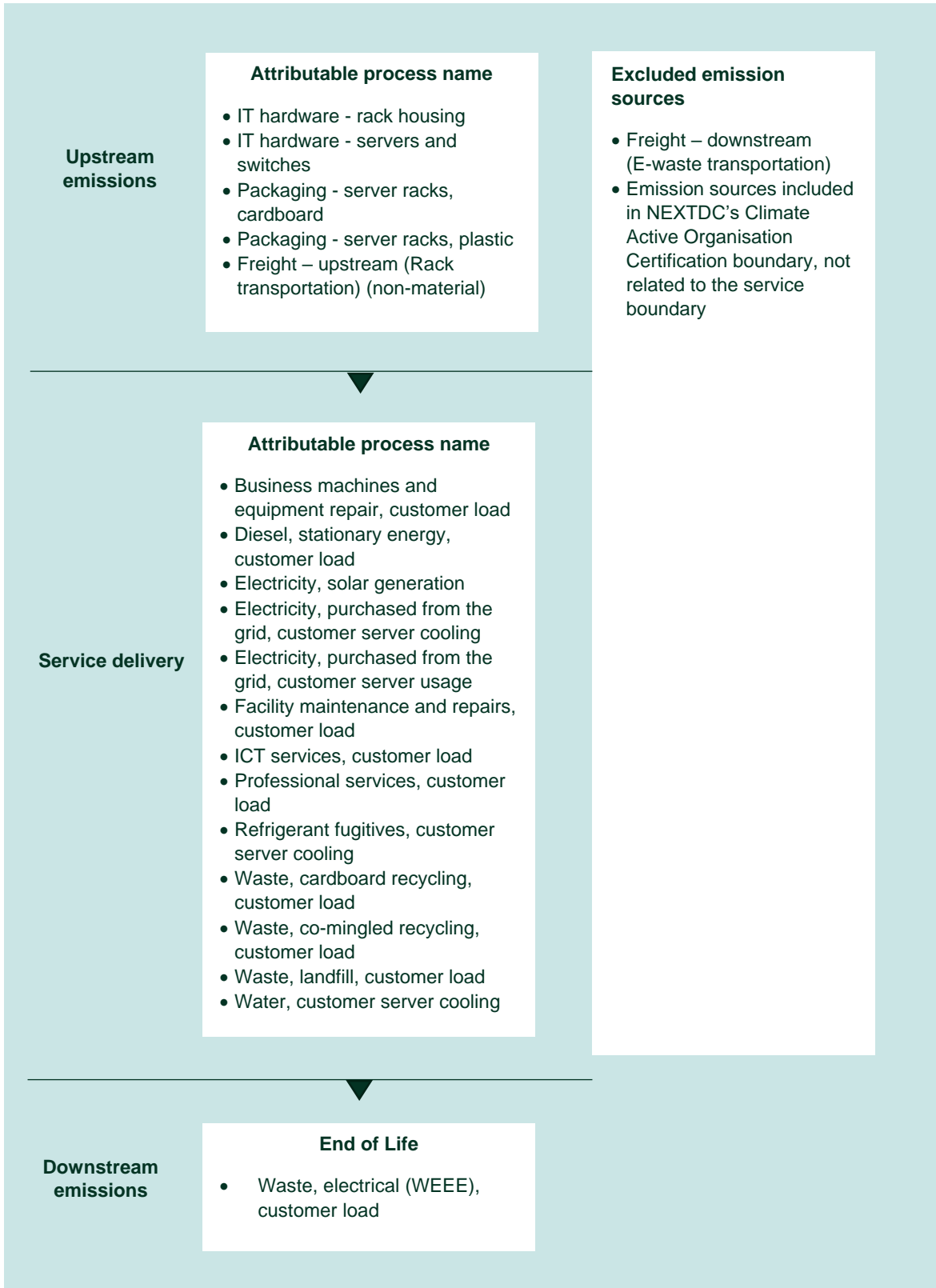
Non-attributable

Freight – downstream (E-waste transportation)

Emission sources included in NEXTDC's Climate Active Organisation Certification boundary, not related to the service boundary

Service process diagram

The below diagram is a cradle-to-grave boundary.



4. EMISSIONS REDUCTIONS

Emissions reduction strategy

NEXTDC intends to continue leading, listening, and acting on sustainable business operations and actively investing in environmental and social and governance (ESG) areas. While we always aspire to our vision of being the leading customer-centric data centre services company, we also acknowledge our responsibility to do this sustainably and responsibly and we are constantly looking for new ways to minimise our environmental footprint.

NEXTDC is dedicated to devising and monitoring the best methods of managing data centres, to ensure energy efficiency and minimise impact on the environment and our natural resources. Our facilities are designed, engineered, and operated to optimise their energy efficiency. NEXTDC has invested significantly in improving energy efficiencies by focusing on its environmental objectives, operational efficiencies and best in class data centre designs. NEXTDC is committed to each data centre having a target Power Usage Effectiveness (PUE) rating to be as energy efficient as possible. In FY23, we achieved a national average PUE of 1.39, which is better than NEXTDC's target PUE of 1.4 and compares very favourably with the industry average of 1.7.

Our organisation continues to prioritise sourcing renewable energy, including solar installations at our data centres and engaging with our customers and energy providers on renewable opportunities. NEXTDC intends to continue the journey to convert its operational performance ambitions for efficiency and energy usage into short/medium GHG reduction targets. Ultimately the aim is to develop a net zero pathway quantifying the Company's full value chain to 2030 and beyond. NEXTDC recognises this is a major ambition and is committed to disclosing its roadmap to net zero, taking into consideration its operational, regulatory, and legislative constraints in a competitive market. Our public statements are available in our FY23 Annual Report and FY23 Environmental, Social and Governance (ESG) Report available on the company website www.nextdc.com.

Considering our projected organic growth, emissions may rise during the following reporting periods. NEXTDC will continue to track its emissions performance using an emissions intensity reduction target (kW capacity). **NEXTDC commits to reduce all service emissions intensity of 0.323 tCO₂-e/kW capacity in 2020-21 by 20% by 2030.** NEXTDC has selected 2020-21 as the base year for target setting.

For further information regarding NEXTDC's Environmental Sustainability policy and emission reduction actions and a copy of our [FY23 Environmental, Social and Governance \(ESG\) Report](#), visit: <https://www.nextdc.com/about-us/environmental-sustainability>.

Whilst working on this plan to reduce emissions, we are proactively offsetting our impacts through the purchase of carbon credits. The emission reduction strategy for the organisational and service operations will include the following actions (but are not limited to):

Emission source	Scope	Opportunity Description	Target year	Potential abatement
Electricity	2	<ul style="list-style-type: none"> • Energy Management: <ul style="list-style-type: none"> - Ensure each NEXTDC data centre is operated to the lowest seasonal Power Usage Effectiveness (PUE) ratio, ensuring optimal energy efficiency when delivering services. - Optimise existing equipment and/or replace equipment with more energy-efficient equipment. - Ensure that cooling equipment is not over-powered for the task. - Increase allowable temperature and humidity ranges and avoid strict temperature control where possible. - Airflow assessment and planning (prevent blocked air ducts and poor airflow design). - Ensure new buildings are designed and built in line with best practice. • Procurement of renewable energy: <ul style="list-style-type: none"> - NEXTDC is actively engaged in directly procuring and investing in renewable energy, committing to the target of reaching 100% renewable energy in our operations by 2030. 	2030	100%
Water	3	<ul style="list-style-type: none"> • Water Management: <ul style="list-style-type: none"> - Ensure each NEXTDC data centre reports on and works toward minimal water usage, tracking the Water Usage Effectiveness (WUE) ratio per facility. • Other reduction actions may include: <ul style="list-style-type: none"> - Improvements in mechanical and electrical plants. - Increase allowable temperature and humidity ranges and avoid strict temperature control where possible. - Ensure new buildings are designed and built in line with best practices (i.e., efficient water rating). - Install efficient cooling systems. - Purchase water efficient products. - Rainwater harvesting. 	2028	20%
Waste	3	<ul style="list-style-type: none"> • General waste: <ul style="list-style-type: none"> - Implement a Zero Waste program, targeting 90% waste diversion from landfill at all Hyperscale, Metro and Regional data centres. - Implement solid waste audits and develop a waste management action plan. - Implement a recycling education program (e.g., improve the graphics and signage on bins, standardize all recycling bins, use digital apps). • Electronic waste <ul style="list-style-type: none"> - NEXTDC has an eWaste management system. • Paper and cardboard (not recycled): <ul style="list-style-type: none"> - Promote a paper-conscious usage policy. - Promote the procurement of products that have been recycled. 	2030	80%

Emissions reduction actions

The following are some actions undertaken during the reporting period FY23:

Energy Management

In FY23, NEXTDC maintained its commitment to delivering some of the highest levels of operational energy efficiency in the market, an outcome enabled by innovative design, engineering, and operational excellence.

Our data centres are certified to globally acknowledged environmental standards. Our M1 Melbourne and S1 Sydney data centres have become the first colocation data centres in Australia to achieve a National Australian Built Environment Rating System (NABERS) 5-Star rating for energy efficiency. This year, our P1 facility achieved a 4.5-star rating.

Power usage effectiveness (PUE) is a metric used to determine the energy efficiency of a data centre. PUE is expressed as a ratio, with overall efficiency improving as the quotient decreases toward 1.0. Our average Power Usage Effectiveness (PUE) performance across the national fleet during FY23 was 1.39. These are outstanding energy efficiency results, ahead of the industries average of around 1.7, and are a testament to our drive for continual improvement in energy efficiency.

All our facilities are compliant with the industry-leading ISO 14001 standard for Environmental Management Systems. Our Edge data centres in Sunshine Coast facility (SC1) and Port Hedland (PH1) which are being operated to the same standards, will soon be certified ISO 14001 compliant. We maintain our Uptime Institute (UI) Tier III certification for our first-generation facilities, and Tier IV certification for the design, construction, and operations for our second-generation sites. The design certifications verify that NEXTDC data centres are built to operate in line with globally recognised standards, demonstrating the operational excellence of our national footprint.

NEXTDC's M1 data centre has a 400kW rooftop solar array, which was Australia's largest rooftop solar array at its commissioning in 2014 and continues to support the work of the City of Melbourne in achieving its sustainability and clean energy goals. In FY23, we added a 300kW solar array at our S1 data centre. Collectively, in FY23, we produced 762.14MWh of renewable energy which provided an offset of over 604 tonnes of CO₂. The array produced around 1% of the electricity used by NEXTDC's customers at M1 and S1, reducing our peak demand from the grid. Additionally, the installation of 198kW solar panel on P1, 60kW in M3 and 17kW on SC1 rooftops are now complete and scheduled to be online in Q1 FY24. NEXTDC has also been a Principal Partner to the Melbourne Renewable Energy Project (MREP) since its inception in 2014.

During FY23, NEXTDC continued its positive uptake of the NEXTneutral program with a 40% increase in customers onboarded. NEXTneutral is our carbon neutral colocation program enabling our customers to achieve 100% carbon neutrality for IT footprints colocated in our data centres.

Water Management

NEXTDC is committed to optimising the use of water in its facilities by reusing, recycling and recovering water where possible. Our plan is to continually reduce our short- and long-term water needs and their environmental impact.

NEXTDC's water usage efficiency is measured through the Water Usage Effectiveness (WUE) metric for each of our data centres. WUE is tracked and reported as part of the weekly operational dashboard presented to management, including the Board. In FY23, NEXTDC's total water consumption across our data centre fleet was 531.68ML. We recorded an average WUE of 1.73, a slight increase contributed to by our M3 and S3 facilities becoming operational in FY23.

Alternate water management options are continuously being explored to mitigate our environmental impact. A good example of this is that the existing electrical room cooling system in S2 pours water down evaporative pads that go down the drain. In the interest of repurposing this water, the team at S2 has been trialling a system that can capture and reuse this water. Our facilities are built in locations that are safe during a 1 in 500 PMF events (possible maximum flood) and able to have fuel supplies delivered during these events. The highly resilient evaporative water-cooling systems are expected to effectively cool our data centres during high temperatures.

Rainwater tanks in our S3 facility capture rainwater used for toilets and watering the garden. 11,000 litres rainwater tanks have been installed with rainwater captured, filtered, and UV-treated prior to use. The water is also used at the end of trip facilities and the building has also been designed to support the recapture and recycling of cooling tower water.

Waste Management

The following reduction activities have continued to be carried out in FY23 in all our facilities:

- Clearly marked bins for separate recycling streams such as 'cardboard and packaging materials' are made available for all customers and staff in all facilities. These include deploying coloured bins for general, cardboard and commingled waste which are then collected and treated accordingly. End of life battery bins have also been made available to ensure these are disposed of correctly and recycled if possible.
- NEXTDC does not permit the disposal of e-waste in its general waste bins. Clear signage is posted around the disposal areas to remind staff and customers. All replaced fluorescent lights are placed into recycling boxes to ensure they are disposed of correctly and recycled.
- E-waste (computers, phones, etc) disposal options for customers implemented.
- We have been working with our customers to ensure they recycle the packaging used to deliver the IT infrastructure installed at our facilities

NEXTDC's waste management initiatives are measured and shared with Management regularly, with Facility Managers held accountable for site level targets. NEXTDC produced 156.95 tonnes of waste during FY23, with 125.05 tonnes being recycled and saved from going into landfill. Our average diversion rate for FY23 is 79.55% with four of our facilities (B1, B2, S1 and S2) achieving more than 90% diversion rate in FY23. This is pleasing progress, achieved in a short time, and putting us in a great position to continue our journey towards our overall target of 90% diversion at all our facilities.

In August 2023, NEXTDC's S1 Sydney became the first data centre in Australia to achieve the TRUE (Total Resource Use and Efficiency) Certification, a comprehensive certification program recognising our efforts to minimise non-hazardous solid wastes and maximising the efficient use of resources. This achievement is a

significant milestone in our journey to reduce our environmental impact and further reflects our commitment. We are proud to be recognised for our efforts and will continue to work towards achieving this certification at all our sites.

Transport (Land and Sea) – employee commuting

In FY23, NEXTDC installed Electric Vehicle (EV) charging stations in 5 of our 12 facilities, with more to come. In encouraging the use of public transport or cycling to work, all our facilities are equipped with end of journey to support employees and customers before or after their commute.

5. EMISSIONS SUMMARY

Emissions over time

Emissions since base year		Total tCO ₂ -e	Emissions intensity of the functional unit
Base year:	2017–18	N/A	0.5
Year 1:	2020–21	127	0.323
Year 2:	2021–22	821	0.353
Year 3:	2022–23	1,518	0.317

Total emissions have increased by around 84% compared to the previous reporting period (FY22). This is primarily due to the service operation of new data centres in FY23, M3 (Melbourne) and S3 (Sydney). The total emissions intensity per functional unit has decreased by around 10% compared to the previous reporting period (FY22) because of an increase in the annual load hire (kW) in FY23.

Use of Climate Active carbon neutral products and services

Certified brand name	Product or Service used
N/A	

Emissions summary

Stage	tCO ₂ -e
Products used in Operations	3,573.9
Operations	350,370.2
End of Life	0.5

No uplift factor was used for NEXTDC's service inventory.

Emissions intensity per functional unit (tCO₂e/kW capacity)	0.317
Number of functional units to be offset (kW capacity)	4,782
Total emissions to be offset (tCO₂e)	1,518

Total emissions represent all functional units from customers that have opted in to NEXTneutral.

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken in-arrears offsetting approach. The total emission to offset is 1,518 t CO₂-e. The total number of eligible offsets used in this report is 4,209. Of the total eligible offsets used, 1,412 offsets were previously banked and 2,784 were newly purchased and retired. 2,678 are remaining and have been banked for future use.

Co-benefits

EXTRAORDINARY IMPACT

OFFSET PROJECT CATEGORY OVERVIEW

Arnhem Land in the Northern Territory is prone to extreme, devastating wildfires that affect the landscape, people, plants and animals. These projects are owned exclusively by Aboriginal people with custodial responsibility for those parts of Arnhem Land under active bushfire management. Local rangers conduct controlled burns early in the dry season to reduce fuel on the ground and establish a mosaic of natural firebreaks, preventing bigger, hotter and uncontrolled wildfires later in the season.

The projects provide employment and training opportunities for local rangers while supporting Aboriginal people in returning to, remaining on and managing their country. Communities are supported in the preservation and transfer of knowledge, the maintenance of Aboriginal languages and the wellbeing of traditional custodians.

The projects meet the following Sustainable Development Goals




EXTRAORDINARY IMPACT

OFFSET PROJECT CATEGORY OVERVIEW

Across India, wind farms introduce clean energy to the grid which would otherwise be generated by coal-fired power stations. Wind power is clean in two ways: it produces no emissions and also avoids the local air pollutants associated with fossil fuels. Electricity availability in the regions have been improved, reducing the occurrence of blackouts across the area.

The projects support national energy security and strengthen rural electrification coverage. In constructing the turbines new roads were built, improving accessibility for locals. The boost in local employment by people engaged as engineers, maintenance technicians, 24-hour on-site operators and security guards also boosts local economies and village services.

The projects meet the following Sustainable Development Goals




Eligible offsets retirement summary

Offsets retired for Climate Active carbon neutral certification											
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity retired (tCO ₂ -e)	Eligible quantity used for previous reporting periods	Eligible quantity banked for future reporting periods	Eligible quantity used for this reporting period	Percentage of total (%)
Enercon Wind Farms in Karnataka Bundled Project	CER	ANREU	30 June 2023	269,034,198 -269,035,622	CP2		1,425	13	0	1,412	93%
Central Arnhem Land Fire Abatement (CALFA) Project	ACCU	ANREU	29 June 2023	3,800,797,499 -3,800,797,507	2020		9	0	0	9	1%
Central Arnhem Land Fire Abatement (CALFA) Project	ACCU	ANREU	29 June 2023	3,785,079,734-3,785,079,863	2019		130	0	33	97	6%
Enercon Wind Farms in Karnataka Bundled Project	CER	ANREU	29 June 2023	269,010,389 - 269,013,033	CP2		2,645	0	2,645	0	0%
Total offsets retired this report and used in this report										1,518	
Total offsets retired this report and banked for future reports									2,678		
Type of offset units		Eligible quantity (used for this reporting period)					Percentage of total				
Australian Carbon Credit Units (ACCU)		106					7%				
Certified Emissions Reductions (CERs)		1,412					93%				

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

The following RECs have been surrendered to reduce electricity emissions under the market-based reporting method.

1. Large-scale Generation certificates (LGCs)*	N/A
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* LGCs in this table only include those surrendered voluntarily (including through PPA arrangements), and does not include those surrendered in relation to the LRET, GreenPower, and jurisdictional renewables.

Project supported by LGC purchase	Project location	Eligible unit type	Registry	Surrender date	Accreditation code	Certificate serial number	Generation year	Fuel source	Quantity (MWh)
Total LGCs surrendered this report and used in this report									

APPENDIX A: ADDITIONAL INFORMATION

Serial number 269,034,198 - 269,035,622:

Australian National Registry of Emissions Units

Transaction ID: AU29245
 Current Status: Sending (91)
 Status Date: 30/09/2023 12:26:07 (AEST)
 Transaction Type: Cancellation (4)
 Transaction Initiator: Grant, Andrew William Thorold
 Transaction Approver: Grant, Andrew William Thorold
 Comment: Retired on behalf of NEXTDC Limited for its NEXTneutral product to meet its Service obligations under the Climate Active certification for the period FY2021/22.

Transferring Account
 Account Number: AU-2734
 Account Name: Tasman Environmental Markets Pty Ltd
 Account Holder: Tasman Environmental Markets Pty Ltd

Acquiring Account
 Account Number: AU-2704
 Account Name: Voluntary Cancellation – CP2
 Account Holder: Commonwealth of Australia

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
IN	CER	Kyoto Voluntary Cancellation	2	2					IN-1286			269,034,198 - 269,035,622	1,425

Serial numbers 3,800,797,499 -3,800,797,507 and 3,800,797,499 -3,800,797,507:

Australian National Registry of Emissions Units


Transaction ID: AU28193
 Current Status: Completed (4)
 Status Date: 29/09/2023 11:41:29 (AEST)
 Transaction Type: Cancellation (4)
 Transaction Initiator: Grant, Andrew William Thorold
 Transaction Approver: Grant, Andrew William Thorold
 Comment: Retired on behalf of NEXTDC Limited for its NEXTneutral product to meet its Service obligations under the Climate Active certification for the period FY2022/23.

Transferring Account
 Account Number: AU-2734
 Account Name: Tasman Environmental Markets Pty Ltd
 Account Holder: Tasman Environmental Markets Pty Ltd

Acquiring Account
 Account Number: AU-1088
 Account Name: Australia Voluntary Cancellation Account
 Account Holder: Commonwealth of Australia

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			EDP100947					2019-20		3,800,797,499 - 3,800,797,507	9
AU	KACCU	Voluntary ACCU Cancellation			EDP100947					2018-19		3,785,079,734 - 3,785,079,863	130

Serial number 269,010,389 - 269,013,033:



Australian National Registry of Emissions Units

Logged in as: Andrew Grant / Industry User

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Transaction Details

Transaction details appear below.

Transaction Successfully Approved

Transaction ID	AU28194
Current Status	Sending (91)
Status Date	29/05/2023 11:45:27 (AEST) 29/05/2023 01:45:27 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Grant, Andrew William Thorold
Transaction Approver	Grant, Andrew William Thorold
Comment	Retired on behalf of NEXTDC Limited for its NEXTneutral product to meet its Service obligations under the Climate Active certification for the period FY2022/23.

Transferring Account

Account Number: AU-2734

Account Name: Tasman Environmental Markets Pty Ltd

Account Holder: Tasman Environmental Markets Pty Ltd

Acquiring Account

Account Number: AU-2764

Account Name: Voluntary Cancellation - CP2

Account Holder: Commonwealth of Australia

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
IN	CER	Kyoto Voluntary Cancellation	2	2					IN-1286			269,010,389 - 269,013,033	2,645

APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

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.

For this certification, electricity emissions have been set by using the **market-based approach**.

Market-based approach summary			
Market-based approach	Activity Data (kWh)	Emissions (kgCO ₂ -e)	Renewable percentage of total
Behind the meter consumption of electricity generated	275,496	0	0%
Total non-grid electricity	275,496	0	0%
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	0	0	0%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	0	0	0%
Precinct/Building jurisdictional renewables (LGCS surrendered)	0	0	0%
Electricity products (voluntary renewables)	0	0	0%
Electricity products (LRET)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	2,630,922	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	667,224	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	84,055,751	0	0%
Residual Electricity	363,300,225	346,951,715	0%
Total renewable electricity (grid + non grid)	87,629,393	0	19%
Total grid electricity	450,654,122	346,951,715	19%
Total electricity (grid + non grid)	450,929,618	346,951,715	19%
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	363,300,225	346,951,715	
Scope 2	320,836,563	306,398,917	
Scope 3 (includes T&D emissions from consumption under operational control)	42,463,663	40,552,798	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	

Total renewables (grid and non-grid)	19.43%
Mandatory	18.79%
Voluntary	0.58%
Behind the meter	0.06%
Residual scope 2 emissions (t CO₂-e)	306,398.92
Residual scope 3 emissions (t CO₂-e)	40,552.80
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	306,398.92
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	40,552.80
Total emissions liability (t CO₂-e)	346,951.72

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

Location-based approach summary						
Location-based approach	Activity Data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kgCO ₂ -e)	Scope 3 Emissions (kgCO ₂ -e)	(kWh)	Scope 3 Emissions (kgCO ₂ -e)
ACT	3,549,065	3,549,065	2,590,817	212,944	0	0
NSW	274,134,568	274,134,568	200,118,235	16,448,074	0	0
SA	0	0	0	0	0	0
VIC	121,405,413	121,405,413	103,194,601	8,498,379	0	0
QLD	25,978,288	25,978,288	18,964,150	3,896,743	0	0
NT	0	0	0	0	0	0
WA	25,586,788	25,586,788	13,049,262	1,023,472	0	0
TAS	0	0	0	0	0	0
Grid electricity (scope 2 and 3)	450,654,122	450,654,122	337,917,066	30,079,612	0	0
ACT	0	0	0	0		
NSW	140,800	140,800	0	0		
SA	0	0	0	0		
VIC	134,696	134,696	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
Non-grid electricity (behind the meter)	275,496	275,496	0	0		
Total electricity (grid + non grid)	450,929,618					
Residual scope 2 emissions (t CO ₂ -e)						337,917.07
Residual scope 3 emissions (t CO ₂ -e)						30,079.61
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO ₂ -e)						337,917.07
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO ₂ -e)						30,079.61
Total emissions liability (t CO ₂ -e)						367,996.68

Operations in Climate Active buildings and precincts

Operations in Climate Active buildings and precincts	Electricity consumed in Climate Active certified building/precinct (kWh)	Emissions (kg CO ₂ -e)
N/A	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market-based method is outlined as such in the market based summary table.</i></p>		

Climate Active carbon neutral electricity products

Climate Active carbon neutral product used	Electricity claimed from Climate Active electricity products (kWh)	Emissions (kg CO ₂ -e)
N/A	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their electricity product certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the electricity product under the market-based method is outlined as such in the market based summary table.</i></p>		

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources have been assessed as attributable, 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.
3. **Data unavailable** Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance** Initial emissions non-quantified but repairs and replacements quantified.

Relevant non-quantified emission sources	Justification reason
Freight – upstream (rack transportation)	Immaterial and data unavailable

Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

1. A data gap exists because primary or secondary data cannot be collected (**no actual data**).
2. Extrapolated and proxy data cannot be determined to fill the data gap (**no projected data**).
3. An estimation determines the emissions from the process to be **immaterial**.

	No actual data	No projected data	Immaterial

Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

The data management plan below outlines how more rigorous quantification can be achieved for material (greater than 1%) non-quantified emission sources.

APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

1. **Size** The emissions from a particular source are likely to be large relative to other attributable emissions.
2. **Influence** The responsible entity could influence emissions reduction from a particular source.
3. **Risk** The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.
4. **Stakeholders** The emissions from a particular source are deemed relevant by key stakeholders.
5. **Outsourcing** The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services.

Non-attributable emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Freight - downstream	N	N	N	N	N	<p>Size: The emissions source is not large compared to other attributable emissions.</p> <p>Influence: We do not have the potential to influence the emissions from this source, including by shifting to a different lower-emissions supplier for our product/service.</p> <p>Risk: There are no relevant laws or regulations that apply to limit emissions specifically from this source, the source does not create supply chain risks, and it is unlikely to be of significant public interest.</p> <p>Stakeholders: Key stakeholders, including the public, are unlikely to consider this a relevant source of emissions for our product/service.</p> <p>Outsourcing: Comparable products/services do not typically undertake this activity within their boundary.</p>



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