



PUBLIC DISCLOSURE STATEMENT


QANTAS AIRWAYS LIMITED

OPT-IN SERVICE CERTIFICATION

FY2021-22

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY	Qantas Airways Limited
REPORTING PERIOD	1 July 2021 – 30 June 2022 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>Tom Gallagher Head of Carbon Offsetting 16/01/2024</p>



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

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Version March 2023.



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	154,912 tCO ₂ -e (Fly Carbon Neutral program only)
CARBON OFFSETS USED	70% CERs, 21% ACCUs, 8% VCU, 1% VERs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: EnergyLink Services Pty Ltd
TECHNICAL ASSESSMENT	Date: 04/08/2023 Organisation: EnergyLink Services Pty Ltd Next technical assessment due: FY2025 report

Contents

1. Certification summary.....	3
2. Carbon neutral information.....	4
3. Emissions boundary.....	6
4. Emissions reductions	9
5. Emissions summary	12
6. Carbon offsets.....	16
7. Renewable Energy Certificate (REC) summary	23
Appendix A: Additional information	24
Appendix B: Electricity summary.....	30
Appendix C: Inside emissions boundary	33
Appendix D: Outside emission boundary	34

2. CARBON NEUTRAL INFORMATION

Description of certification

The Qantas Group's product offering is the provision of voluntary (opt-in) carbon-neutral passenger and freight services to our customers.

To assess the volume of emissions attributable to a passenger and freight flying a sector (from one airport to another), Qantas Group has undertaken a comprehensive well-to-wake Life Cycle Assessment (LCA) of energy usage in flight (aviation fuel) and on the ground (catering centres, engineering facilities, airport terminals, office and ground transport vehicles). The LCA includes the embodied energy of the aircraft flown by the airline.

Qantas has selected emission factors that are geographically specific to the emission sources accounted for in the product LCA. There are no geographic limitations to the scope of the LCA as we are a global airline.

The objective of the LCA is to assess the emissions footprint of our customers in sufficient detail, to evaluate the global warming potential attributable to a passenger, or freight, travelling on a Qantas Group aircraft. An average emissions footprint per-passenger-kilometre and per-freight-kilometre (i.e. functional unit) is applied to codeshare and other non-Qantas Group flights for carbon neutral certification under the Climate Active Carbon Neutral Standard.

Using Qantas Group activity data over the previous 12 months and 'full fuel cycle' emission factors published by the Australian Government (National Greenhouse Accounts), the passenger's specific portion of emissions released by a given Qantas Group fleet are added to the related emissions released from ground activities and divided by the total distance travelled. For Qantas Group sectors, these rates are weighted by the aircraft used in that sector as well as the distance travelled.

Scope of certification includes only Fly Carbon Neutral program and Carbon Neutral freight program. No other Qantas group carbon offsetting programs are included in this opt-in certification. Carbon Neutral freight service (Freight) and Qantas Future Planet (Business to Business) program are standalone programs and not marketed under Fly Carbon Neutral (Passenger) program.

Service description

Founded in regional Queensland in 1920, as the Queensland and Northern Territory Aerial Service (QANTAS), Qantas is widely regarded as the world's leading long-distance airline and one of the strongest brands in Australia. We've built a reputation for excellence in safety, operational reliability, engineering and maintenance, and customer service.

Qantas Group's main business is the transportation of customers using two complementary airline brands - Qantas and Jetstar. Our airline brands operate regional, domestic and international services. The Group's broad portfolio of subsidiary businesses ranges from Qantas Freight Enterprises to Qantas Frequent Flyer.

This is an opt-in service offered by Qantas which is marketed as its Fly Carbon Neutral program.

Consolidation approach

An operational consolidation approach has been used and includes the entities shown in Figure 1. It should be noted that the organisational diagram represents the reporting structure for the purpose of Climate Active certification and does not reflect the legal corporate structure of Qantas Group.

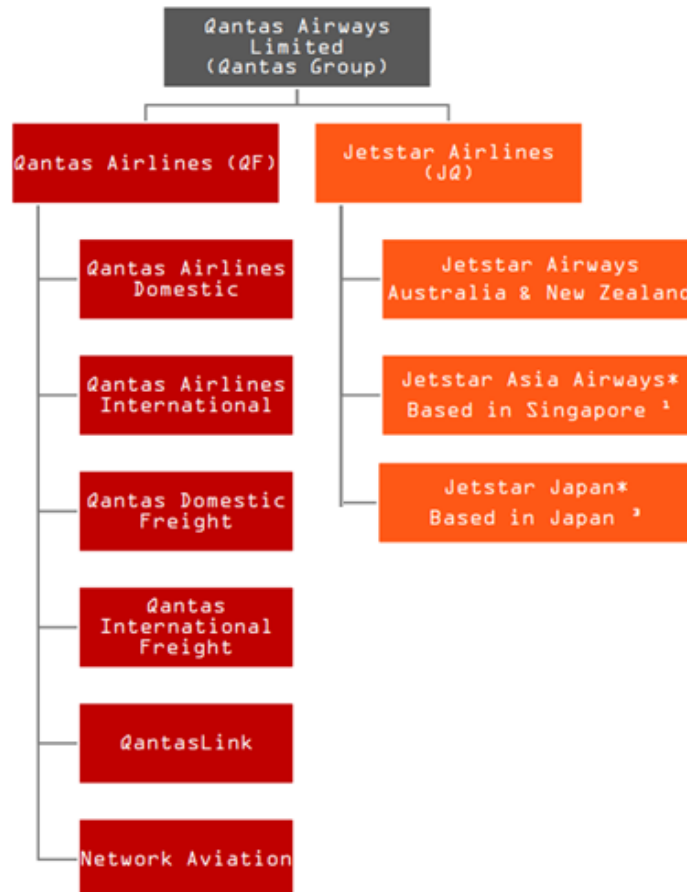


Figure 1: Organisational diagram representing the reporting structure for the purpose of Climate Active

* These organisations' activities have been excluded from the carbon footprint assessment that forms the basis for calculating emissions-per-passenger-kilometre rates that are subsequently used to estimate emissions-per-passenger for each sector (from one airport to another) that the product is offered. These organisations are excluded as they do not form part of the Fly Carbon Neutral (FCN) program. Duty travel has also been excluded as it is offset separately by Qantas and Jetstar.

¹ Minority ownership.

³ Minority ownership

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 in 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 in Appendix D.

Inside emissions boundary

Quantified

Kerosene (Stationary & Transport)

Diesel (Stationary & Transport)

Gasoline (Transport)

LPG (Stationary & Transport)

Natural gas (Stationary & Transport)

Electricity

Refrigerants

Oils, greases & solvents

Inflight magazines for Jetstar & Qantas

Accommodation & taxis

Waste (Food & commercial & Industrial)

Embodied energy of aircraft

Onboard catering including food, drink & plastics consumables across all airlines (Jetstar & Qantas mainlines)

Water use

Non-quantified

Office paper

Excluded

Ground fuels at international ports

Electricity at international ports

International scope 3 emissions (except for fuel burn and embodied energy related emission sources)

Airline related business travel (Duty)

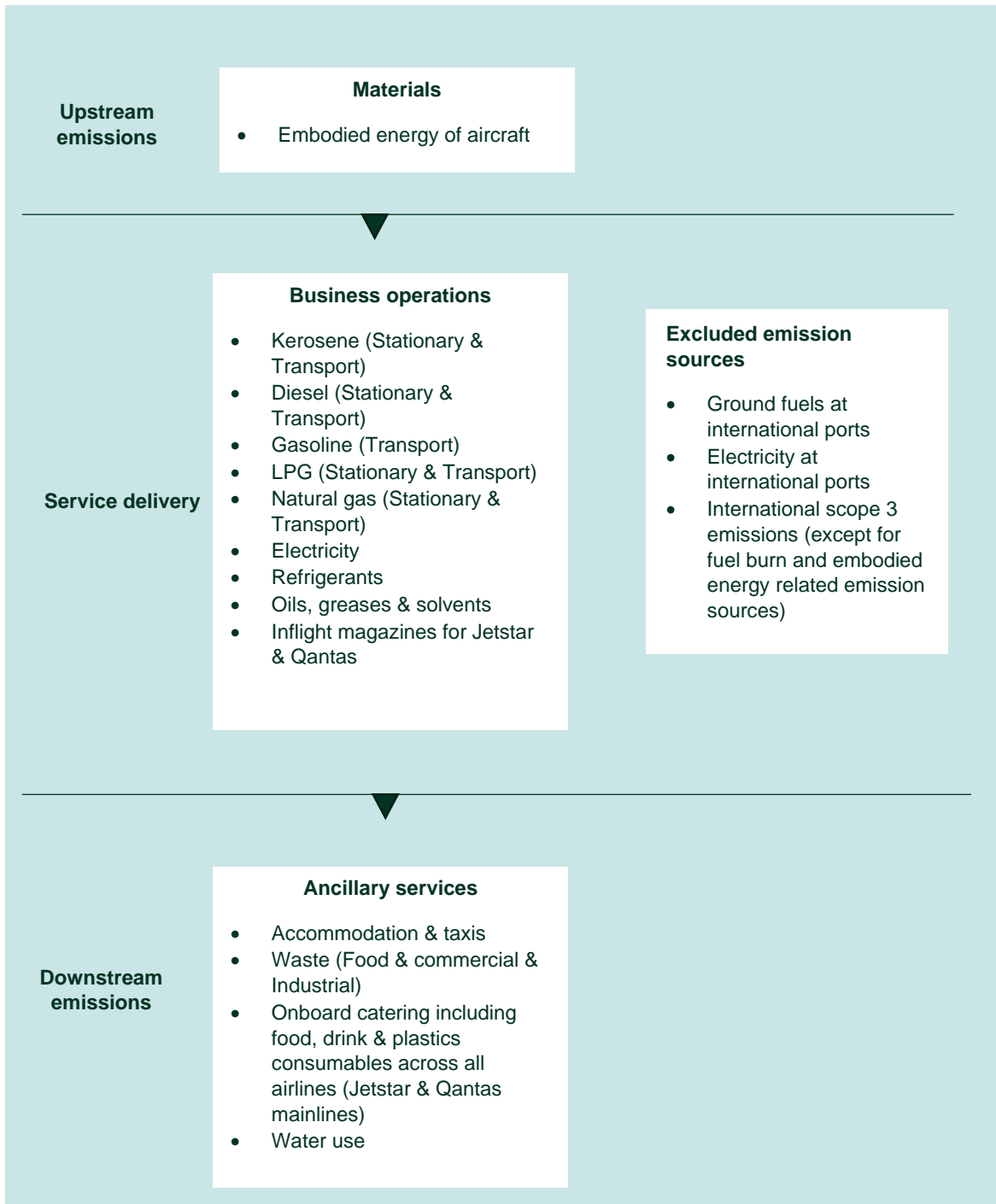
Outside emission boundary

Non-attributable

N/A

Service process diagram

This diagram below represents attributable processes on a well-to-wake basis.



4. EMISSIONS REDUCTIONS

Emissions reduction strategy

At Qantas, we believe all businesses have a responsibility to continually reduce their environmental footprint. While the COVID-19 crisis is compelling Qantas to restructure many parts of the business, we are still committed to continuing to lead the way in sustainable aviation.

By positioning environmental sustainability at the core of our business, we are able to implement programs that reduce our impact and drive greater efficiencies across all aspects of how we operate, Table 1.

Table 1 Qantas Group targets: in the air

Target	Strategy to Deliver	Performance to Target (FY22)
1.5% average annual fuel efficiency improvement	Fuel efficiency through fleet modernisation and operational improvements	Fuel efficiency has been impacted by the reduction in flying due to COVID-19.
Cap emissions at 2019 levels	In addition to fuel efficiency measures, utilise sustainable aviation fuels and carbon offsets where possible. The Group remains committed to achieving net zero emissions by 2050.	The Group remains committed to achieving net zero emissions by 2050.
Net zero emissions by 2050	Continual investment in new aircraft technology, sustainable aviation fuels and carbon market industry development.	Group emissions for 2021/22 were ~60 per cent lower than 2018/19 level in line with reduced operating conditions.

In addition to our stated 2050 targets and commitments, in 2022 the Qantas Group released its Climate Action Plan which outlined interim targets for 2030, Table 2.

Table 2 Qantas Group Interim 2030 Targets: in the air

Target	Strategy to Deliver	Performance to Target (FY22)
Interim target: 25% reduction in net emissions from 2019 levels by 2030*	Continual investment in new aircraft technology, sustainable aviation fuels and carbon market industry development.	Group emissions for 2021/22 were ~60 per cent lower than 2018/19 level in line with reduced operating conditions.
10% of Sustainable Aviation Fuel (SAF) in fuel mix by 2030	Continuing to work with state and federal governments to ensure policy frameworks support the acceleration of sustainable aviation, including the development of a SAF industry in Australia.	Initial investment of AU\$50M in SAF domestic production, development of a SAF corporate program, offshore SAF deals, and US\$200M partnership with Airbus to support a domestic SAF industry.
Average of 1.5% per year fuel efficiency improvements to 2030	Fuel efficiency through fleet modernisation and operational improvements.	Fuel efficiency has been impacted by the reduction in flying due to COVID-19.

* The statement of “net emissions” denotes our 2019 baseline position. From that baseline position, Qantas aims to reduce 25% of carbon emissions by 2030.

Emissions reduction actions

Qantas undertook a range of initiatives and actions during the FY22 reporting period to reduce our emissions. More details can be found in our 2022 Sustainability Report (FY22 SR).

Fleet Modernisation and Renewal of Our Narrow Body Fleet

In May 2022, the Qantas Group announced several major fleet decisions that will reshape our international and domestic networks. Domestically, Qantas will start the renewal of our narrow-body jets as part of 'Project Winton' with orders for 20 Airbus A321XLRs and 20 A220-300s as our Boeing 737s and 717s are gradually retired.

FlightPulse

A flight data application developed in partnership with GE Aviation, used by Qantas Group pilots since 2017. FlightPulse provides tailored flight analytics to pilots around fuel efficiency, providing data to help them fly more efficiently and help reduce carbon emissions. FlightPulse was designed by pilots, for pilots, providing access to data like never before.

Constellation Flight Planning System

In 2018, the Qantas Group launched a cloud-based flight planning system, Constellation, that models thousands of flight paths across millions of data points to determine the optimal fuel plan and best route, accounting for time, aircraft capability, weather and external constraints such as closed airspace or ash clouds.

Fly Carbon Neutral (FCN) program

Qantas' FCN program continues to provide a platform for customers and Qantas to contribute towards emissions reduction activities through investing in carbon offsetting projects.

5. EMISSIONS SUMMARY

Emissions over time

Emissions since the base year		Total tCO ₂ -e	Emissions intensity of the functional unit (kg CO ₂ -e/PAX km)	Emissions intensity of the functional unit (kg CO ₂ -e/Freight km)
Base year:	2012-13	16,263,831	0.134	0.994
Year 1:	2013-14 (PAX)	11,073,707	0.1087	-
Year 1:	2013-14 (Freight)	-	-	-
Year 2:	2014-15 (Pax)	10,985,885	0.104	-
Year 2:	2014-15 (Freight)	1,897,595	-	0.989
Year 3:	2015-16 (Pax)	11,652,495	0.104	-
Year 3:	2015-16 (Freight)	1,760,342	-	0.908
Year 4:	2016-17 (PAX)	11,860,518	0.104	-
Year 4:	2016-17 (Freight)	1,746,526	-	0.935
Year 5:	2017-18 (PAX)	12,045,150	0.100	-
Year 5:	2017-18 (Freight)	1,730,749	-	0.929
Year 6:	2018-19 (PAX and Freight)	13,618,264	0.094	0.902
Year 7:	2019-20 (PAX and Freight)	10,242,941	0.094	0.902
Year 8:	2020-21 (PAX and Freight)	3,495,135	0.094	0.902
Year 9:	2021-22 (PAX and Freight)	3,466,118	0.101	0.761

Significant changes in emissions

N/A

Use of Climate Active carbon neutral products and services

Certified brand name	Service
EnergyLink Services	Consulting

Emissions summary

Attributable process	tCO ₂ -e
Embodied Energy (Aircraft)	32,931
Electricity	72,540
Transport (Air)	3,293,277
Stationary Energy (gaseous fuels)	6,089
Stationary Energy (liquid fuels)	14,081
Refrigerants	1,248
Transport (Land and Sea)	1,916
Office equipment & supplies	723
Waste	20,818
Water	870
Accommodation and facilities	21,626

Emissions intensity per functional unit (kg CO₂-e/PAX km)	Commercial in confidence
Number of functional units to be offset (kg CO₂-e/PAX km)	Commercial in confidence
Emissions intensity per functional unit (kg CO₂-e/Freight km)	Commercial in confidence
Number of functional units to be offset (kg CO₂-e/Freight km)	Commercial in confidence
Total emissions to be offset (tCO₂-e)	154,912*

*Qantas Fly Carbon Neutral program only, excluding Qantas Duty Travel.

Functional units

Passenger

The functional unit for domestic travel is the transport of a single passenger, over a specified distance, from entry into the airport terminal at origin to exiting the airport terminal (i.e. 'kg CO₂-e per-passenger-kilometre').

For international travel, the functional unit is the transport of a single passenger, over a specified distance, from entry into an Australian airport terminal at origin to exiting the aircraft at an international port.

Similarly, for the return trip to Australia, the functional unit is the transport of a single passenger over a specified distance, from entry into the aircraft at an international port, to exiting at an Australian airport terminal (expressed in 'kg CO₂-e per-passenger-kilometre').

Freight

The functional unit is the transport of one tonne of freight expressed in tonnes CO₂-e per tonne-kilometre (i.e. 't CO₂-e per tonne-kilometre') based on freight transported on an aircraft within and outside of Australia. It includes Qantas Freight and belly freight transported on Qantas and Jetstar passenger aircraft. The functional unit only includes the ground support required to load the freight onto the aircraft and excludes transport to and from the airport. Ground support is not included for freight loading/unloading at international ports. Note that the resulting emission factor is to be applied across all freight including belly freight and freight transported on Qantas dedicated air freight services to take into account the inherent variability in the method used to transport freight.

Standard

The LCA has been prepared in alignment with Climate Active Carbon Neutral Standard guidelines in accordance with international standards ISO 14040:2006 and ISO 14044:2006.

Greenhouse gases considered

Greenhouse gases considered include Carbon Dioxide (CO₂), Nitrous Oxide (N₂O), Methane (CH₄), Sulphur Hexafluoride (SF₆), Hydrofluorocarbons (HCFs) and Perfluorocarbons (PFCs).

Allocation of belly freight

Qantas Freight uses passenger aircraft for freight transport (belly freight). The quantity of fuel used for freight transported in passenger aircraft was determined using traffic statistics for Qantas mainline which provided information on the following by aircraft type:

- **PAX RTK** passenger revenue-tonne-kilometres – which is the revenue load in tonnes of passengers multiplied by the distance flown.
- **RTK** which is the revenue load in tonnes multiplied by the distance flown (that is the total load – freight and passengers flown).

The freight component for each aircraft type was determined using the following formula:

- **%RFTK** = (RTK – PAX RTK)/RTK

This percentage was applied to fuel use by aircraft type to apportion fuel to belly freight.

A similar approach was used for Jetstar services; however, PAX RTK and RTK were not available by aircraft type and a single belly freight percentage was applied across the Jetstar fleet.

The goal of the LCA is to assess an emissions footprint in sufficient detail that supports the global warming potential attributable to a passenger on a Qantas Group and/or an average emissions footprint-per-kilometre to be applied to codeshare and other non-Qantas Group flights for carbon neutral certification under the Climate Active program.

6. CARBON OFFSETS

Offsets retirement approach

This reporting year, Fly Carbon Neutral program volume requirements for voluntary carbon offsets was communicated to our voluntary carbon offsets suppliers. Once our suppliers prepared a portfolio and it was approved by Qantas Group, they purchased and retired the offsets on Qantas' behalf.

This certification has taken an in-arrears offsetting approach. The total emissions to offset are 154,912 tCO₂-e. The total number of eligible offsets used in this report is 154,912. Of the total eligible offsets used, 0 were previously banked and 154,912 were newly purchased and retired. 0 are remaining and have been banked for future use.

A summary of the offsets purchased and retired by Qantas Group in FY22 are highlighted below:

- 154,912 carbon credits were purchased and retired for customers who 'ticked-the-box' to participate in Qantas' Fly Carbon Neutral program which is the Climate Active certified service detailed in this PDS.
- 11,032 carbon credits were purchased and retired to offset all duty travel.
- 131,500 carbon credits were purchased and retired for customers as part of Qantas's Dollar for Dollar matching program. See Appendix A for more details on this program.

NOTES:

- No freight emissions have been offset as part of this certification for FY22.
- An external review of the required credit retirement revealed 10,885 additional credits were purchased and retired by Qantas in FY22. These credits are not being carried forward and are retired here as part of this certification, and are disclosed in the 'Eligible offsets retirement summary table' below.

Co-benefits

Our carbon offset portfolio reflects the strategic priorities of Qantas Group. This includes our commitment to support Indigenous economic development through our Reconciliation Action Plan, which involves supporting the employment of Indigenous rangers in northern Australia, who use traditional practices to promote the regeneration of native vegetation. For FY22 these projects included:

- Wunambal Gaambera Uunguu Fire Project
- Wilinggin Fire Project
- Dambimangari Fire Project
- Balangarra Fire Project
- South East Arnhem Land Fire Abatement Project

These projects also align to 9 of the United Nations Sustainable Development Goals (SDGs).



Eligible offsets retirement summary

Please note, the below credit retirement summary has been separated per Qantas program to distinguish between each respective program. As a result, there may be discrepancies between the credit retirement detailed below and the credit retirement certificate.

Offsets retired for Climate Active certification

Project description	Type of offset units	Registry	Date retired	Serial number	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 - 73.60 MW	CER	ANREU	24/11/2021	200,825,046 - 200,837,907	CP2	-	12,862	0	0	12,862	8%
Cordillera Azul National Park REDD Project	VCU	VERRA	24/11/2021	5570-246357301-246358770-VCU-024-MER-PE-14-985-08082013-07082014-1	2014	-	1,470	0	0	1,470	1%
Kavakli Wind Power Plant	VCU	Gold Standard	24/11/2021	GS1-1-TR-GS2682-12-2015-4808-12570-12753	2015	-	184	0	0	184	0.1%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	23/02/2022	215,855,010 - 215,857,583	CP2	-	2,574	0	0	2,574	2%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	23/02/2022	268,983,429 - 269,005,702	CP2	-	22,274	0	0	22,274	14%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Cordillera Azul National Park REDD Project	VCU	VERRA	23/02/2022	5570-246454341-246456825-VCU-024-MER-PE-14-985-08082013-07082014-1	2014	-	2,485	0	0	2,485	2%
ONIL Stoves Guatemala Uspantan	VCU	VERRA	23/02/2022	9506-103733487-103734196-VCS-VCU-814-VER-GT-3-1721-01012016-31122016-0	2016	-	710	0	0	710	0.5%
Enercon Wind Farms in Karnataka Bundled Project – 33 MW	CER	ANREU	30/06/2022	238,847,374 - 238,881,041	2017	-	33,668	0	0	33,668	22%
Cordillera Azul National Park REDD Project	VCU	VERRA	30/06/2022	10141-187323209-187326575-VCS-VCU-263-VER-PE-14-985-08082014-07082015-1	2015	-	3,367	0	0	3,367	2%
Promoting Clean Cooking Solutions for the Disadvantaged Households in Nepal	VER	Gold Standard	30/06/2022	GS1-1-NP-GS6597-16-2017-18455-4707-5187	2017	-	481	0	0	481	0.3%
Kavakli Wind Power Plant	VER	Gold Standard	30/06/2022	GS1-1-TR-GS2682-12-2015-4808-13512-13992	2015	-	481	0	0	481	0.3%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Bundled Wind Power Project in Tamil Nadu, India, co-ordinated by Tamil Nadu Spinning Mills Association (TASMA-II)	CER	ANREU	29/08/2022	223,486,283 - 223,505,200	CP2	-	18,918	0	0	18,918	12%
Grid Connected Wind Energy Generation at Andhra Pradesh	CER	ANREU	29/08/2022	265,545,642 - 265,553,294	CP2	-	7,653	0	0	7,653	5%
Grid Connected Wind Energy Generation at Andhra Pradesh	CER	ANREU	29/08/2022	241,031,398 - 241,041,886	CP2	-	10,489	0	0	10,489	7%
Cordillera Azul National Park REDD Project	VCU	VERRA	29/08/2022	10141-187327313-187331018-VCS-VCU-263-VER-PE-14-985-08082014-07082015-1	2015	-	3,706	0	0	3,706	2%
Sah Wind Power Plant	VER	Gold Standard	29/08/2022	GS1-1-TR-GS905-12-2016-6849-16743-17272	2016	-	530	0	0	530	0.3%
Promoting Clean Cooking Solutions for the Disadvantaged Households in Nepal	VER	Gold Standard	29/08/2022	GS1-1-NP-GS6597-16-2017-18455-7397-7925	2017	-	529	0	0	529	0.3%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Dambimangari Fire Project	ACCU	ANREU	2/02/2023	8,328,224,903 - 8,328,239,546	2020-21	-	14,644 ¹	0	0	7,922	5%
Wilinggin Fire Project	ACCU	ANREU	2/02/2023	8,332,558,421 - 8,332,573,064	2021-22	-	14,644 ²	0	0	7,921	5%
Wunambal Gaambera Unguu Fire Project	ACCU	ANREU	2/02/2023	3,799,930,363 - 3,799,940,106	2019-20	-	9,744 ³	0	0	5,270	3%
Wunambal Gaambera Unguu Fire Project	ACCU	ANREU	2/02/2023	8,323,903,481 - 8,323,903,736	2020-21	-	256 ⁴	0	0	138	0.1%
Wunambal Gaambera Unguu Fire Project	ACCU	ANREU	2/02/2023	8,323,903,737 - 8,323,903,979	2020-21	-	243 ⁵	0	0	131	0.1%
Balanggarra 1 Fire Project	ACCU	ANREU	2/02/2023	8,344,659,422 - 8,344,671,421	2021-22	-	12,000 ⁶	0	0	6,490	4%
Balanggarra 1 Fire Project	ACCU	ANREU	2/02/2023	8,344,671,422 - 8,344,672,538	2022	-	1,117 ⁷	0	0	604	0.4%

¹ Remaining units have been used as part of Qantas' dollar-for-dollar matching (see Appendix A of this document).

² As above.

³ As above.

⁴ As above.

⁵ As above.

⁶ As above.

⁷ As above.

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	5/10/2022	8,329,061,346 - 8,329,068,782	2020-21	-	7,437 ⁸	0	0	4,022	3%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	2/02/2023	268,888,020 - 268,899,111	CP2	-	11,092 ⁹	0	0	33	0.02%
Total offsets retired this report and used in this report										154,912	
Total offsets retired this report and banked for future reports									0		

Summary of offset units used for this certification

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCU)	32,498	21%
Certified Emissions Reductions (CERs)	108,471	70%
Verified Carbon Units (VCUs)	11,922 11,738	8%
Verified Emissions Reductions (VERs)	2,021 2,205	1%

⁸ See note 1.

⁹ Remaining units have been used as part of Qantas duty travel and dollar-for-dollar matching (see Appendix A of this document).

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

Additional offsets retired by Qantas – Duty Travel

Please note, the below credit retirement summary has been separated per Qantas program to distinguish between each respective program. As a result, there may be discrepancies between the credit retirement detailed below and the credit retirement certificate.

Project description	Type of offset units	Registry	Date retired	Serial number	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 - 73.60 MW	CER	ANREU	2/02/2023	268,888,020 - 268,899,111	CP2	-	11,092	0	0	11,032	100%
Additional offsets retired for Qantas Duty Travel										11,032	

Type of offset units	Quantity used	Percentage of total
Certified Emissions Reductions (CERs)	11,032	100%

Dollar for Dollar Matching

On the 11th of November 2019, Qantas Group announced that they will be matching every dollar spent by customers who 'tick-the-box' to Fly Carbon Neutral through the Qantas and Jetstar channels, effectively doubling the program.

This was done following the same strategic priorities of our voluntary customer offset portfolio and was communicated to our voluntary carbon offset suppliers who purchased and retired on Qantas' behalf. 131,500 tonnes of additional carbon offsets were purchased and retired through matching every dollar spent by customers who 'ticked-the-box' and opted into the Fly Carbon Neutral program.

Additional offsets retired by Qantas – Dollar for Dollar Matching

Please note, the below credit retirement summary has been separated per Qantas program to distinguish between each respective program. As a result, there may be discrepancies between the credit retirement detailed below and the credit retirement certificate.

Project description	Type of offset units	Registry	Date retired	Serial number	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 - 73.60 MW	CER	ANREU	24/11/2021	200,837,908 - 200,849,029	CP2	-	11,122	0	0	11,122	8%
Cordillera Azul National Park REDD Project	VCU	VERRA	24/11/2021	5570-246358771-246360041-VCU-024-MER-PE-14-985-08082013-07082014-1	2014	-	1,271	0	0	1,271	1%
Kavakli Wind Power Plant	VCU	Gold Standard	24/11/2021	GS1-1-TR-GS2682-12-2015-4808-12754-12912	2015	-	159	0	0	159	0%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Renewable Energy											
Wind Power Project in Karnataka	CER	ANREU	23/02/2022	242,183.404 - 242,185.203	CP2	-	1,800	0	0	1,800	1%
Renewable Energy											
Wind Power Project in Karnataka	CER	ANREU	23/02/2022	265,973.744 - 265,993.517	CP2	-	19,774	0	0	19,774	15%
Cordillera Azul National Park REDD Project	VCU	VERRA	23/02/2022	5570 246456826 246458982 VCU 024 MER PE 14 985 08082013 07082014 1	2014	-	2,157	0	0	2,157	2%
ONIL Stoves Guatemala Uspantan	VCU	VERRA	23/02/2022	9506 103734197 103734813 VCS VCU 814 VER GT 3 1721 01012016 31122016 0	2016	-	617	0	0	617	0%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	30/06/2022	200,913.032 - 200,920.031	CP2	-	7,000	0	0	7,000	5%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	30/06/2022	243,158.217 - 243,177.876	CP2	-	19,660	0	0	19,660	15%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	30/06/2022	269,080.185 - 269,082.542	CP2	-	2,358	0	0	2,358	2%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Cordillera Azul National Park REDD Project	VCU	VERRA	30/06/2022	5570-246467019-246468630-VCU-024-MER-PE-14-985-08082013-07082014-1	2014	-	1,612	0	0	1,612	1%
Cordillera Azul National Park REDD Project	VCU	VERRA	30/06/2022	10141-187321919-187323208-VCS-VCU-263-VER-PE-14-985-08082014-07082015-1	2015	-	1,290	0	0	1,290	1%
Promoting Clean Cooking Solutions for the Disadvantaged Households in Nepal	VER	Gold Standard	30/06/2022	GS1-1-NP-GS6597-16-2017-18455-4292-4706	2017	-	415	0	0	415	0%
Kavakli Wind Power Plant	VER	Gold Standard	30/06/2022	GS1-1-TR-GS2682-12-2015-4808-13098-13511	2015	-	414	0	0	414	0%
Bundled Wind Power Project in Tamil Nadu, India, co-ordinated by Tamil Nadu Spinning Mills Association (TASMA-II)	CER	ANREU	29/08/2022	223,505,201 - 223,524,117	CP2	-	18,917	0	0	18,917	14%
Grid Connected Wind Energy Generation at Andhra Pradesh	CER	ANREU	29/08/2022	241,041,887 - 241,053,305	CP2	-	11,419	0	0	11,419	9%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Cordillera Azul National Park REDD Project	VCU	VERRA	29/08/2022	10141-187331019-187334052-VCS-VCU-263-VER-PE-14-985-08082014-07082015-1	2017	-	3,034	0	0	3,034	2%
Sah Wind Power Plant	VER	Gold Standard	29/08/2022	GS1-1-TR-GS905-12-2016-6849-17273-17573	2015	-	301	0	0	301	0%
Balabanli Wind Power Plant	VER	Gold Standard	29/08/2022	GS1-1-TR-GS1322-12-2016-6601-13062-13193	2016	-	132	0	0	132	0%
Promoting Clean Cooking Solutions for the Disadvantaged Households in Nepal	VER	Gold Standard	29/08/2022	GS1-1-NP-GS6597-16-2017-18455-7926-8359	2017	-	434	0	0	434	0%
Dambimangari Fire Project	ACCU	ANREU	2/02/2023	8,328,224,903 - 8,328,239,546	2020-21	-	6,722	0	0	6,722	5%
Wilinggin Fire Project	ACCU	ANREU	2/02/2023	8,332,558,421 - 8,332,573,064	2021-22	-	6,723	0	0	6,723	5%
Wunambal Gaambera Uunguu Fire Project	ACCU	ANREU	2/02/2023	3,799,930,363 - 3,799,940,106	2019-20	-	4,474	0	0	4,474	3%
Wunambal Gaambera Uunguu Fire Project	ACCU	ANREU	2/02/2023	8,323,903,481 - 8,323,903,736	2020-21	-	118	0	0	118	0%
Wunambal Gaambera Uunguu Fire Project	ACCU	ANREU	2/02/2023	8,323,903,737 - 8,323,903,979	2020-21	-	112	0	0	112	0%

Project description	Type of offset units	Registry	Date retired	Serial number	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 (%)
Balanggarra 1 Fire Project	ACCU	ANREU	2/02/2023	8,344,659,422 - 8,344,671,421	2021-22	-	5,510	0	0	5,510	4%
Balanggarra 1 Fire Project	ACCU	ANREU	2/02/2023	8,344,671,422 - 8,344,672,538	2021-22	-	513	0	0	513	0%
South East Arnhem Land Fire Abatement Project (SEALFA) Project	ACCU	ANREU	5/10/2022	8,329,061,346 - 8,329,068,782	2020-21	-	3,415	0	0	3,415	3%
Enercon Wind Farms in Karnataka Bundled Project - 73.60 MW	CER	ANREU	2/02/2023	268,888,020 - 268,899,111	CP2	-	11,092	0	0	27	0%
Total additional offsets retired for Qantas – Dollar for Dollar										131,500	

Summary of additional offsets retired by Qantas and allocated to Dollar-for-Dollar Matching

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Australian Carbon Credit Units (ACCU)	27,587	21%
Certified Emissions Reductions (CERs)	92,077	70%
Verified Carbon Units (VCUs)	9,981	8%
Verified Emissions Reductions (VERs)	1,855	1%

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 location-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	0	0	0%
Total non-grid electricity	0	0	0%
LGC Purchased and retired (kWh) (including PPAs & Precinct LGCs)	0	0	0%
GreenPower	0	0	0%
Jurisdictional renewables (LGCs retired)	1,004,427	0	1%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	229,361	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	14,873,552	0	18%
Residual electricity	65,134,795	64,806,760	0%
Total grid electricity	81,242,135	64,806,760	20%
Total electricity consumed (grid + non grid)	81,242,135	64,806,760	20%
Electricity renewables	16,107,340	0	
Residual electricity	65,134,795	64,806,760	
Exported on-site generated electricity	0	0	
Emissions (kgCO ₂ e)		64,806,760	
Total renewables (grid and non-grid)	19.83%		
Mandatory	19.83%		
Voluntary	0.00%		
Behind the meter	0.00%		
Residual electricity emissions footprint (tCO₂-e)	64,807		
<i>Figures may not sum due to rounding. Renewable percentage can be above 100%</i>			
<i>Voluntary includes LGCs retired by the ACT (MWh)</i>	1,004		

Location Based Approach Summary

Location Based Approach	Activity data (kWh)	Scope 2 emissions (kgCO ₂ -e)	Scope 3 emissions (kgCO ₂ -e)
ACT	1,233,789	962,355	86,365
NSW	33,294,256	25,969,520	2,330,598
SA	1,287,993	386,398	90,160
VIC	28,964,409	26,357,612	2,896,441
QLD	11,978,942	9,583,154	1,437,473
NT	996,708	538,222	39,868
WA	2,507,299	1,679,890	25,073
TAS	978,740	137,024	19,575
Grid electricity (scope 2 and 3)	81,242,135	65,614,174	6,925,553
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
VIC	0	0	0
QLD	0	0	0
NT	0	0	0
WA	0	0	0
TAS	0	0	0
Non-grid electricity (Behind the meter)	0	0	0
Total electricity consumed	81,242,135	65,614,174	6,925,553
Emissions footprint (tCO₂-e)	72,540		
Scope 2 Emissions (tCO ₂ -e)	65,614		
Scope 3 Emissions (tCO ₂ -e)	6926		
Carbon neutral electricity offset by Climate Active product	Activity data (kWh)	Emissions (kgCO₂-e)	
N/A	0	0	

Climate Active carbon neutral electricity is not renewable electricity. The emissions have been offset by another Climate Active member through their product certification.

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
Office Paper	Immaterial

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
Ground fuels at international ports	Yes	Yes	Yes
Electricity at international ports	Yes	Yes	Yes
International scope 3 emissions (except for fuel burn and embodied energy related emission sources)	Yes	Yes	Yes
Airline related business travel (Duty)*	*	*	*

* The Qantas Group offsets all employee and contractor business travel. Since our corporate travel is offset, we exclude business travel from our emissions profile to prevent double counting.

Data management plan for non-quantified sources

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

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.

N/A – no non-attributable processes were identified for this service certification in this reporting period.



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