

An Australian Government Initiative

NCOS CARBON NEUTRAL PROGRAM

PUBLIC DISCLOSURE SUMMARY

QANTAS AIRWAYS LIMITED

1. ORGANISATION AND PRODUCT INFORMATION

Organisation Name:	Qantas Airways Limited		
Disclosure Period:	From: <u>1 July 2010</u> to: <u>30 June 2011</u>		
Date of most recent verification: <u>September 2010</u>			
Carbon Neutral Disclosure Type	2:		
a. Organisation b. Product			
Product Overview (delete if not	applicable):		
Product Name:	Qantas Group Carbon Offset Program		

Product Overview

Product 1: Qantas Airlines Carbon Offset Program

Product 2: Jetstar Airlines Carbon Offset Program

Brief Description

The Qantas Group is a leading airline group committed to environmental sustainability.

The Qantas Group (Qantas Airlines and Jetstar Airlines) launched voluntary carbon offset programs in September 2007. These programs give customers the option to fly carbon neutral whenever they book their flights through qantas.com.au and jetstar.com.au or at anytime via qantas.com.au/flycarbonneutral



To lead the way and demonstrate a commitment to this initiative, the Qantas Group carbon offsets all its employee staff 'duty travel' flights and ground vehicle tailpipe emissions and has done so since the launch of the program.

The Qantas Group voluntarily pays for all administrative costs associated with the program so that 100% off all customer contributions can be passed on to purchase Australian Government NCOS eligible offset units.

The Qantas Group does not directly profit from this program.

We seek to have the world's best airline carbon offset program in order to benefit all stakeholders, and are in a process of continuous improvement in this regard.

We welcome feedback: environment@qantas.com.au

For more information visit qantas.com/environment

Join Us. We're here for the long haul.

2. PRODUCT DESCRIPTION

To accurately calculate the volume of emissions of a passenger flying a sector (from one airport to another), both Qantas Airlines and Jetstar Airlines have undertaken comprehensive life cycle studies of energy usage in flight, such as jet fuel, and on the ground – in catering centres, engineering facilities, airport terminals, offices and our ground transport vehicles. The assessments also include the 'embodied energy' during the manufacture of the aircraft flown by the airlines.

The Life Cycle Assessments (LCAs) are updated each financial year. There are no geographic limitations to the scope of the LCA as Qantas Airlines, Jetstar Airlines and codeshare partners operate globally. The goal of each LCA is to assess the global warming potential attributable to passengers on a Qantas Airlines, Jetstar Airlines or codeshare flight in sufficient detail to support an emissions footprint for carbon neutral certification under the NCOS-CN program.

Using data over 12 months and 'full fuel cycle' emissions factors published by the Australian Government (National Greenhouse Accounts), the emissions released by aircraft on each flight sector (excluding the influence of freight) are added to the related emissions from ground activities and then divided by the number of passengers carried on the sector. This method of calculation provides an estimation of the share of emissions attributable to each passenger on a flight sector.

For customers flying on a Qantas Airlines and Jetstar Airlines codeshare flight, emissions are calculated using the average emissions per kilometre, based on an average of all flights across the Qantas Airlines and Jetstar Airlines networks respectively.

3. PURCHASE OF GREENPOWER[™] OR NCOS CARBON NEUTRAL PRODUCTS AND/OR CANCELLATION OF GREENPOWER[™] ELIGIBLE RENEWABLE ENERGY CERTIFICATES (RECS)

Not applicable.

4. TOTAL CARBON FOOTPRINT OF PRODUCT SOLD

The total product sold is as follows:

Financial Year 2011 – Full Year Results	Tonnes Co2-e
Qantas, Jetstar and the Group Commitment	267,902

5. EMISSION REDUCTION MEASURES

Emissions Reduction Strategy

The Qantas Group is focused on reducing its carbon emissions. The Group's comprehensive climate change strategy focuses on improving fuel efficiency through the fleet renewal program, advanced navigational capability, a dedicated fuel optimisation program and commercialising a low-carbon sustainable biofuel for aviation.

Short term Strategy

The Qantas Group has set a fuel efficiency target of 16.5% by 2020 (on 2005 baseline) and is on track to achieve an average fuel efficiency improvement of 1.5% per annum to 2020 which is aligned with the goal set by International Air Transport Association (IATA) for the aviation industry.

Long term Strategy

As a member of IATA, the Qantas Group has endorsed the IATA's stated vision to achieve "carbon neutral growth" by 2020 and to see the airline industry operating with a 50% reduction in annual net emissions by 2050 (on 2005 baseline).

The Qantas Group participates in the Federal Government's Energy Efficiency Opportunities (EEO) program. The three opportunities in the table below are sourced from the 2011 EEO Report.

Emission Reduction Measures

Fleet Renewal

Fleet renewal is the foundation for the Qantas Group's fuel optimisation program. Similar to typical new cars compared to old cars, new generation aircraft are more fuel efficient than old generation aircraft. The Qantas Group has \$11 billion committed in highly fuel-efficient next generation aircraft (at list prices), such as the Airbus A380 and Boeing 787. The Qantas Group has ten A380s in service, with a further 10 to come, and 50 B787s on order.

During the year, the Group brought 24 new aircraft into service:

- Qantas and QantasLink four A380s, one A330-200, five B737-800s, one Bombardier Q400s
- Jetstar, including Jetstar Asia two A330-200, ten A320-200s
- The Group retired three aircraft one B747-400 and two B737-300s.

More than 235 new aircraft are planned for delivery over the next twelve years. This will enable the retirement of many older aircraft with some types being progressively phased out.

Mobile PCA Units

The Qantas Group currently spends approximately \$60 M pa. on Auxiliary Power Unit (APU) jet fuel consumption. A recent benchmarking study comparing Qantas Group performance against other major airlines identified significant scope to reduce APU fuel costs by maximising the use of ground-based electrical power and air conditioning units. The use of ground based equipment removes the need to operate APUs during transits and results in significant fuel, emissions and maintenance savings.

While there is currently sufficient ground power to support operations at Sydney (T3), Melbourne, Brisbane and Perth domestic terminals, there are insufficient pre-conditioned air (PCA) units at these ports. Currently, the APU is operated in warmer weather to provide air-conditioning. While PCA is common at airports internationally, in Australia it is only available at a minority of gates at Adelaide, Sydney and Melbourne International terminals. By procuring mobile PCA units (and other associated infrastructure) to support operations at Sydney (T3), Melbourne, Brisbane and Perth domestic terminals aviation fuel and maintenance savings will be achieved by removing the need to operate the APU during transits.

Aircraft Weight reduction

Reducing aircraft weight is a key element of reducing aircraft fuel burn and emissions. Qantas Group has continued its program of aircraft weight reduction across all aspects of its operation and has recently completed replacement of its most common type of aluminium freight containers with advanced composite devices. These containers are approximately 50% lighter than previous aluminium containers saving over 150 kg on some aircraft whilst also proving to be more durable and damage resistant.

6. OFFSET PURCHASE / CANCELLATION

Offset Type / Retirement date	Project Name	Registry	Serial Numbers	Offset Quantity
Refer NCOS 3.1				(Tonnes CO ₂ -e)

FY11 Q4

VCS – VCU 22/12/2011	REDD Forests Grouped Project: Protection of Tasmanian Native Forest	Markit	1613-67422714-67425213-VCU- 006-MER-AU-14-641-01042010- 30062011-0	2,500
VCS – VCU 22/12/2011	SIAM Cement Biomass Project	Markit	1696-69931205-69941204-VCU- 008-MER-TH-4-403-01012009- 30062009-0	10,000
VCS – VCU 22/12/2011	Coc Dam Hydropower Project	Markit	1298-56318754-56320036-VCU- 010-MER-VN-1-580-01012010- 30042010-0	1,283
VCS – VCU 22/12/2011	Coc Dam Hydropower Project	Markit	1300-56335465-56336809-VCU- 010-MER-VN-1-580-01012009- 31122009-0	1,345
VCS – VCU 22/12/2011	Coc Dam Hydropower Project	Markit	1299-56320037-56325570-VCU- 010-MER-VN-1-580-10062008- 31122008-0	5,534
VCS – VCU 22/12/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	874-41409218-41409693-VCU- 008-CDC-KH-3-181-01012009- 31122009-0	476
VCS – VCU 22/12/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	358-12780689-12780941-VCU- 001-CDC-KH-3-181-10012008- 31122008-0	253
VCS – VCU 22/12/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	874-41502690-41506565-VCU- 008-CDC-KH-3-181-01012009- 31122009-0	3,876
VCS – VCU 22/12/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	1462-61939747-61941641-VCU- 008-CDC-KH-3-181-01012010- 31122010-0	1,895
VCS – VCU 22/12/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	874-41493690-41494689-VCU- 008-CDC-KH-3-181-01012009- 31122009-0	1,000
VCS – VCU 22/12/2011	Xinjiang Dabancheng Sanchang Phase ¢ó Wind Power Project	АРХ	879-41904445-41946806-VCU- 003-APX-CN-1-470-01012009- 31122009-0	42,362

FY11 Q3

VCS - 28/07/2011	Cenol and Telha Forte Ceramics Switching Fuel Project	Markit	868-41183583-41189163-VCU- 009-TZ1-BR-1-54-01072009- 31122009-1	5,311
VCS 28/07/2011	Siam Cement Biomass Project	markit	1401-60615678-60637806-VCU- 008-MER-TH-4-403-01012009- 30062009-0	22,129
VCS 28/07/2011	Xinjiang Dabancheng Sanchang Phase ¢ó Wind Power Project	АРХ	879-41849851-41871979-VCU- 003-APX-CN-1-470-01012009- 31122009-0	22,129
VCS - 28/07/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	874-41406080-41409177-VCU- 008-CDC-KH-3-181-01012009- 31122009-0	3,098
VCS 28/07/2011	Coc Dam Hydropower Project	Markit	1300-56326171-56335464-VCU- 010-MER-VN-1-580-01012009- 31122009-0	9,294

FY11 Q2

VCSR308 - VCU 24/03/2011	Xinjiang Dabancheng Sanchang Phase ¢ó Wind Power Project	АРХ	879-41824851-41848429-VCU- 003-APX-CN-1-470-01012009- 31122009-0	23,579
VCSR122 –VCU 24/03/2011	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	874-41364866-41379865-VCU- 008-CDC-KH-3-181-01012009- 31122009-0	15,000
VCS -VCU 23/03/2011	Hsikou Hydro Power Project	Markit	633-29260261-292688760-VCU- 008-TZ1-TW-1-342-02032007- 27092009-0	8,500
VCS - VCU 23/03/2011	Siam Cement Biomass Project	Markit	1206-53723291-53746790-VCU- 008-MER-TH-4-403-01012009- 30062009-0	23,500

FY11 Q1

VCS122 - VCU 09/12/2010	Fuel-Wood Saving with improved Cookstoves in Cambodia	АРХ	874-41394866-41405365-VCU- 008-CDC-KH-3-181-01012009- 31122009-0	10,500
VCS308 – VCU 09/12/2010	Xinjiang Dabancheng Sanchang Phase ¢ó Wind Power Project	АРХ	879-41812358-41820850-VCU- 003-APX-CN-1-470-01012009- 31122009-0	8,493
VCS308 - VCU 09/12/2010	Xinjiang Dabancheng Sanchang Phase Wind Power Project	АРХ	877-41712755-41725261-VCU- 003-APX-CN-1-470-01012010- 10032010-0	12,507

VCS - VCU 08/12/2010	Hsikou Hydro Power Project	Markit	633-29244923-29260260-VCU- 008-TZ1-TW-1-342-02032007- 27092009-0	15,338
VCS - VCU 08/12/2010	Mobuya Mini Hydro Power Plant 3 x 1000 kW North Sulawesi Indonesia	Markit	809-39322201-39326200-VCU- 009-TZ1-ID-1-238-01012008- 31122008-0	4,000
VCS – VCU - 08/12/2010	Cenol and Telha Forte Ceramics Switching Fuel Projects	Markit	867-41159200-41163506-VCU- 009-TZ1-BR-1-54-01012010- 31012010-1	4,307
VCS - VCU 08/12/2010	Cenol and Telha Forte Ceramics Switching Fuel Projects	Markit	868-41173607-41183299-VCU- 009-TZ1-BR-1-54-01072009- 31122009-1	9,693

How we choose our FY2011 carbon offsets

Each of our FY11 carbon offset projects has been screened through a multi-stage 'filter' selection process using standards that have been independently developed with the aim to ensure that Qantas and our customers can be confident in their integrity.

Our Carbon Offset Program Commitment

Our commitment is to direct the customers contribution towards funding carbon offset projects that are deemed to:

- Be *additional* to business as usual
- *Permanently* reduce or avoid greenhouse gas emissions
- Not be *double-counted* or used to by Qantas to reduce its liability under any carbon compliance regime
- Contribute to sustainable development and provide social *co-benefits* wherever possible
- Be *independently verified* against a transparent high quality internationally recognised standard
- Have a *real time impact* by closely matching the timing of emissions reduction to the actual emissions you're offsetting

Current Offset Projects

Outlined in the table below are some of the FY2011 carbon offset projects that Qantas Group carbon offset program funds helped enable:

Project Name	Project Description
Siam Cement Biomass Project	 Introduces renewable biomass as an alternative to fossil-fuels Improves air quality by reducing fossil-fuel processing and extraction Meets the Australian Government's National Carbon Offset Standard Stimulates local job economy
Cook Stoves in Cambodia Reduce Greenhouse Gas Emissions	 Reduces carbon emissions by introducing more fuel efficient cook stoves Combats deforestation with new stoves that use 22% less fuel wood Meets the Australian Government's National Carbon Offset Standard Generates local jobs by manufacturing in Cambodia
Mobuya 'Run-of-River' Hydropower in oSulawesi, Indonesia	 Introduces a lower-emissions electricity source to the grid Reduces reliance on fossil-fuel based electricity Meets the Australian Government's National Carbon Offset Standard Avoids the negative environmental and social impacts associated with large dams
Coc Dam Hydropower in Lao Cai province, Vietnam	 Avoids GHG emissions by introducing lower emissions electricity sources to the grid Reduces air pollution by requiring the burning of fewer fossil fuels Reduces environmental impacts of fossil fuel extraction and processing Creates local employment and skills development Meets the Australian Government's National Carbon Offset Standard
Xinjian Tanfeng Wind Power in China	 Reduces carbon emissions by reducing reliance on fossil-fuel derived power Introduces a renewable source of energy Meets the Australian Government's National Carbon Offset Standard Improves local air quality by reducing reliance on coal

More information regarding current carbon offset projects can be found at www.qantas.com/flycarbonneutral

7. OTHER INFORMATION

For more information please visit www.qantas.com/environment

Or contact us at environment@qantas.com.au