

## PUBLIC REPORT 2010

### Controlling Corporation

QANTAS AIRWAYS LIMITED

### Period to which this report relates

Start 1 July 2009

End 30 June 2010

### Part 1 – Information on assessments completed to date

**Table 1.1 – Description of the way in which the Corporate Group (or part of it) has carried out its assessments**

In 2010, the Qantas Group's Board and Executive Management endorsed a refreshed Environment Strategy, committing the company "...to be a leading airline Group committed to creating a cleaner future for the care of our environment". The strategy takes a comprehensive approach to reducing the business' environmental impacts. It defines specific environment objectives, initiatives and success measures. The Group will focus our environmental efforts around three strategic outcomes: Environmentally sustainable and efficient operations, competitiveness enhanced by the changing regulatory environment and environmentally engaged customers, people and communities. While programs are in place to address water, electricity and waste impacts, greatest focus is given to the minimising the Group's aviation fuel consumption.

As aviation fuel constitutes in excess of 97% of our domestic energy consumption, it naturally forms the focus of our energy conservation measures. Qantas fuel conservation assessments have been carried out since 2005.

The Environment and Fuel Conservation Department is responsible for the identification of fuel conservation initiatives. The department's objective is for continuous improvement in fuel efficiency.

A senior level Fuel Working Group assesses group wide fuel efficiency opportunities, and if appropriate, facilitates implementation.

Each initiative is allocated an owner with analytical support to ensure that it is quantified during the analysis and savings are tracked after implementation. The project team manages the process until completion where results are then reviewed by the Environment and Fuel Conservation Department.



In the financial year ending June 2010, Qantas has continued to progressively implement initiatives to improve fuel efficiency across the Qantas fleet. Reviews to assess further energy efficiency opportunities have been conducted in line with the requirements of the EEO program, as well as the Energy Savings Action Plan and Water Savings Action Plan schemes (legislated by the New South Wales Government Department of Environment, Climate Change and Water) and the Environment and Resource Efficiency Plans program (required by EPA Victoria).

In line with these other state programs, Qantas is also assessing opportunities for improving the energy performance of its ground facilities.

Climate change is one of the most important issues facing the global community. Aviation's contribution to climate change is being considered by regulators globally. Risks and opportunities relating to regulatory and other types of risks, including climate change, are formally identified and reviewed by individual business units as well as by the Environment and Fuel Conservation Department which has Group-wide oversight. The Group's approach to strategically address the risks associated with emissions and climate change include:

- investing in fuel-efficient aircraft under the Group's fleet renewal program
- improving fuel efficiency and reducing the emissions intensity of its business
- facilitating the development of a sustainable aviation fuel (SAF) industry
- optimising network efficiency by partnering with infrastructure operators and government in a changing regulatory environment
- reducing resource consumption generally

In 2009, the Group set a challenging fuel and carbon efficiency improvement target of an average of 1.5 per cent per annum improvement through to 2020 (a total improvement of 16.5 per cent, measured on a Revenue Tonne Kilometre (RTK) basis, against a 2008/09 baseline). This is in line with the global industry goal established by IATA. This target was achieved in 2009/10, and progress against this target is highlighted at a Board level three times a year at the Qantas Safety, Health, Environment and Security Committee.

During 2009/10 the Qantas Group joined the Sustainable Aviation Fuel Users Group (SAFUG), a global group of leading airlines and aviation companies working together with scientific agencies and environmental organisations to develop cleaner jet fuels. The Group has completed a review of the sustainable aviation fuel market globally and has identified technologies and organisations with whom a closer collaboration may be warranted.



Qantas also launched a study in conjunction with the Australian and New Zealand group of SAFUG (known as ASAFUG) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to identify and suggest how to address barriers to a commercially sustainable aviation fuels industry.

Qantas recently engaged a leading industry Original Equipment Manufacturer (OEM) to undertake an assessment of Qantas Airlines' fuel conservation strategies against best practice. Based on this assessment, the OEM has indicated that Qantas employs 'very advanced' fuel practices that represent an industry leader.

The Qantas Group's performance and standards in the area of sustainability are demonstrated through our inclusion since 2009 in the sustainable investment indexes, the Dow Jones Sustainability Index (DJSI) Asia Pacific and the FTSE4Good Global Index and Australia 30 Index. In 2010, the Group was acknowledged as an industry leader, ranking fourth on the 2010 Carbon Disclosure Project Leadership Index for Australia and New Zealand. This recognises the Group's Strategic focus and commitment to transparency and management of the company's climate change impacts.

### Part 1 – Information on assessments completed to date (continued)

<b>Table 1.2 – Energy use assessed</b>		
<b>Group member and/or business unit and/or key activity and/or site that has had an assessment completed by the end of this reporting period.</b>	<b>Period over which assessment was undertaken</b>	<b>Energy use per annum in GJ in the current reporting year</b>
QANTAS FLIGHTS	1/7/06 - 30/6/10 (continuing assessment process)	37,387,946
JETSTAR	1/7/06 - 30/6/10 (continuing assessment process)	12,418,555
QANTAS LINK	1/7/06 - 30/6/10 (continuing assessment process)	6,433,563
<b>Total energy use of assessed entities</b>		<b>56,240,064</b>
<b>Total energy use of the whole corporate group in the period 1.7.2009 to 30 June 2010</b>		<b>57,806,436</b>
<b>Total energy use of assessed entities for the period 1.7.2009 to 30.6.2010 expressed as a percentage of total energy use for the period 1.7.2009 to 30.6.2010</b>		<b>97%</b>



## Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

### Part 2A - New assessments completed or not reported since your last Public Report

Name of Group member or business unit or key activity or site: QANTAS FLIGHTS, JETSTAR and QANTAS LINK

Total energy use for the period 1.7.2009 to 30.6.2010 of the assessed entity (or part thereof) from which the opportunities identified below were generated (and is reported in Table 1.2).

56,240,064	GJ
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#### 2A 2.1 - New Assessments better than 30% accuracy

Table 2.1A Status of Opportunities Identified		Total Number of Opportunities	Estimated energy savings per annum by payback period (GJ)						Total estimated energy savings per annum (GJ)
			0 - < 2 years		2 - ≤4 years		> 4 years		
			Number of Opps	GJ	Number of Opps	GJ	Number of Opps	GJ	
Business Response	Under Investigation	0	0	0	0	0	0	0	0
	To be Implemented	0	0	0	0	0	0	0	0
	Implementation Commenced	20	20	35,744	0	0	0	0	35,744
	Implemented	46	46	198,946	0	0	0	0	198,946
	Not to be implemented	0	0	0	0	0	0	0	0
Outcomes of assessment	Total Identified	66	66	234,690	0	0	0	0	(2009/10) 234,690

The detail in Part 2A shows savings generated in 2009/10 from initiatives implemented or completed in 2009/10.

Initiatives included in 'New Assessments better than 30% accuracy' have undergone detailed analysis.

**Part 2A - New assessments completed during the reporting period (continued)**

Name of Group member or business unit or key activity or site: QANTAS FLIGHTS, JETSTAR and QANTAS LINK

Total energy use for the period 1.7.2009 to 30.6.2010 of the assessed entity (or part thereof) from which the opportunities identified below were generated (and is reported in Table 1.2).

56,240,064	GJ
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2A 2.2 - New Assessments worse than 30% accuracy

Table 2.2A PUBLIC REPORT Status of Opportunities Identified		Total Number of Opportunities	Estimated energy savings per annum by payback period (GJ)						Total estimated energy savings per annum (GJ)
			0 - < 2 years		2 - ≤4 years		> 4 years		
			Number of Opps	GJ	Number of Opps	GJ	Number of Opps	GJ	
Business Response	Under Investigation	14	14	2,143		0	0	0	(future) 2,143
	To be Implemented	7	7	0	0	0	0	0	0
	Implementation Commenced	0	0	0	0	0	0	0	0
	Implemented	0	0	0	0	0	0	0	0
	Not to be Implemented	0	0	0	0	0	0	0	0
Outcomes of assessment	Total Identified	21	21	2,143	0	0	0	0	(future) 2,143

Initiatives included in 'New Assessments worse than 30% accuracy' are undergoing further analysis.

Savings listed on this page are in planning and have not yet been achieved.

## Part 2B - Update of assessments reported in previous Public Reports

Name of Group member or business unit or key activity or site: QANTAS FLIGHTS, JETSTAR and QANTAS LINK

Total energy use for the period 1.7.2009 to 30.6.2010 of the assessed entity (or part thereof) from which the opportunities identified below were generated (and is reported in Table 1.2).

56,240,064	GJ
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### 2B 2.1 - Previous Assessments better than 30% accuracy

Table 2.1B PUBLIC REPORT Status of Opportunities Identified		Total Number of Opportunities	Estimated energy savings per annum by payback period (GJ)						Total estimated energy savings per annum (GJ)
			0 - < 2 years		2 - ≤4 years		> 4 years		
			Number of Opps	GJ	Number of Opps	GJ	Number of Opps	GJ	
Business Response	Under Investigation	0	0	0	0	0	0	0	0
	To be Implemented	0	0	0	0	0	0	0	0
	Implementation Commenced	5	3	17,147	0	0	2	4,707,315	(future) 4,724,463
	Implemented	138	138	1,854,573	0	0	0	0	*1,854,573
	Not to be Implemented	0	0	0	0	0	0	0	0
Outcomes of assessment	Total Identified	143	141	1,871,720	0	0	2	4,707,315	6,579,036

Initiatives included in 'New Assessments better than 30% accuracy' have undergone detailed analysis.

The detail in part 2B shows planned and actual savings from identified opportunities.

\*Cumulative savings emanating from initiatives previously reported for the period 2005/06 to 2009/10 approximate 1.9 million GJ.

Future savings from the Group's planned fleet renewal program approximate 4.7 million GJ.

**Part 2B - Update of assessments originally reported in previous Public Reports** (continued)

Name of Group member or business unit or key activity or site: QANTAS FLIGHTS, JETSTAR and QANTAS LINK

Total energy use for the period 1.7.2009 to 30.6.2010 of the assessed entity (or part thereof) from which the opportunities identified below were generated (and is reported in Table 1.2).

56,240,064	GJ
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2B 2.2 - Previous Assessments worse than 30% accuracy

Table 2.2B PUBLIC REPORT Status of Opportunities Identified		Total Number of Opportunities	Estimated energy savings per annum by payback period (GJ)						Total estimated energy savings per annum (GJ)
			0 - < 2 years		2 - ≤4 years		> 4 years		
			Number of Opps	GJ	Number of Opps	GJ	Number of Opps	GJ	
***Business Response	Under Investigation	2	2	4,287	0	0	0	0	(future) 4,287
	To be Implemented	0	0	0	0	0	0	0	0
	Implementation Commenced	0	0	0	0	0	0	0	0
	Implemented	0	0	0	0	0	0	0	0
	Not to be Implemented *	22	22	0	0	0	0	0	0
Outcomes of assessment	Total Identified	24	24	4,287	0	0	0	0	(future) 4,287

Initiatives included in 'New Assessments worse than 30% accuracy' are undergoing further analysis.

Savings listed on this page are in planning and have not yet been achieved.

\* Note: Initiatives under 'Not to be Implemented' include those which have been rolled into other initiatives, and are therefore no longer tracked as separate initiatives.

## Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

### Part 2C - Details of at least three significant opportunities found through EEO assessments

**Table 2.5 – Description of 3 significant opportunities**

#### Opportunity 1: Fleet Renewal

Fleet renewal is the foundation for Qantas' fuel conservation program. The Qantas Group is investing US\$22 billion in highly fuel-efficient next generation aircraft (at list prices), such as the Airbus A380 and Boeing 787. The Qantas Group has six A380s in service, with a further 14 to come, and 50 B787s on order.

During the year, the Group brought 23 new aircraft into service:

- Qantas and QantasLink – three A380s, one A330-200, three B737-800s, seven Bombardier Q400s
- Jetstar, including Jetstar Asia – one A330-200, six A320-200s, two A321-200s
- The Group retired nine aircraft – three B747-400s, three B767-300ERs and three B737-300s.

More than 150 new aircraft are planned for delivery over the next eight years. This represents more than one new aircraft per month, and will enable the retirement of up to 65 older aircraft with some types (B767-300 and B737-400) to be progressively phased out.

#### Opportunity 2: Flight Planning Optimisation

Qantas has invested in enhancing its flight planning systems, developing a capability known as "Free Flight". This system enables the aircraft to optimise the flight path to take advantage of the most favourable wind and weather conditions while minimising fuel consumption.

Qantas is pioneering Required Navigational Performance (RNP), which uses leading edge technology to land aircraft efficiently. This is one of a range of advanced navigational aircraft technology enabling procedures such as Automatic Dependent Surveillance – Broadcast (ADS-B); Dynamic Aircraft Route Planning (DARP), tailored arrivals, Constant Descent Arrivals (CDAs) and Electronic Flight Bag (EFB).

#### Opportunity 3: Composite Containers

Reducing aircraft weight is a key element of reducing aircraft fuel burn and emissions. Qantas 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.



## Part 3 - Voluntary Contextual Information

**Table 3.1 – Contextual Information**

The table below has been completed to provide additional contextual information regarding changes in energy use.

**Table 3.2 – Changes in energy use**

Name of group member/ business unit/ key activity/site	Current energy use as an indicator	Previous energy use as an indicator	
QANTAS FLIGHTS	37,387,946	37,777,344	
JETSTAR	12,418,555	12,717,740	
QANTAS LINK	6,433,563	6,443,173	
<b>Total energy assessed</b>	<b>56,240,064</b>	<b>56,938,257</b>	

## Part 4 – Declaration

**Table 4.1 - Declaration of accuracy and compliance (mandatory information)**

The information included in this report has been reviewed and noted by the board of directors and is to the best of my knowledge, correct and in accordance with the *Energy Efficiency Opportunities Act 2006* and *Energy Efficiency Opportunities Regulations 2006*.

Gareth Evans – Acting Qantas Group Chief Executive Officer