# **Carbon Disclosure Project**

CDP 2010 Investor CDP 2010 Information Request Qantas Airways Ltd

**Module: Introduction** 

**Page: Introduction** 

0.1

#### Introduction

Please give a general description and introduction to your organization.

Qantas is the world's second oldest airline. Founded in the Queensland outback in 1920, it is Australia's largest domestic and international airline and is recognised as one of the world's leading long distance carriers, having pioneered services from Australia to North America and Europe. The Qantas Group today employs approximately 35,000 people and offers services across a network spanning 173 destinations in 42 countries (including those covered by codeshare partners) in Australia, Asia and the Pacific, the Americas, Europe and Africa. The company's main business is the transportation of passengers using two complementary airline brands - Qantas and Jetstar. Qantas Airlines comprises commercial, customer and marketing, and operations arms. In addition to Qantas mainline sales and distribution, the commercial group includes QantasLink, Qantas Freight Enterprises and alliances. The customer and marketing arm includes product and service development, cabin crew, marketing and inflight services. The operations group comprises engineering, airports, catering, flight operations, operations planning and control and Qantas Aviation Services. The Group has investments in other airline and airline related businesses. Qantas holds: a 49 per cent interest in Newstar Investment Holdings Pte Limited ("Newstar"), which owns all the shares in Orangestar Investment Holdings Pte Limited ("Orangestar"), which in turn owns and operates the value based intra-Asia airlines Jetstar Asia and Valuair, based in Singapore; a 27 per cent stake in Vietnam's Jetstar Pacific; a 46.3 per cent interest in Air Pacific; and a 58 per cent interest in Jetset Travelworld Limited. Qantas is also a partner with Australia Post in two jointly controlled entities: the domestic air freight operator Australian air Express; and the national road freight business Star Track Express.

0.2

#### Reporting Year

Please state the start and end date of the year for which you are reporting data.

# Enter Periods that will be disclosed

Tue 01 Jul 2008 - Tue 30 Jun 2009

0.3

Are you participating in the Walmart Sustainability Assessment?

No

0.4

#### Modules

As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors, the corresponding sector modules will be marked as default options to your information request.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see www.cdproject.net/cdp-questionnaire.

0.5

### **Country list configuration**

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.

Select country
Australia

0.6

Please select if you wish to complete a shorter information request.

**Further Information** 

#### **Attachments**

https://www.cdproject.net/Sites/2010/41/15341/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Introduction/qantasannualreport\_2009.pdf

# **Module: Governance**

Page: Governance

1.1

Where is the highest level of responsibility for climate change within your company? Board committee or other executive body

1.1a

Please specify who is responsible.

Sub-set of the Board

1.1b

Select the lower level department responsible.

1.2

What is the mechanism by which the board committee or other executive body reviews the company's progress and status regarding climate change?

The Board's Safety, Health, Environment and Security Committee (SHESC) has responsibility for oversight of environmental issues, the environmental management system and performance. The company's progress and status with regard to climate change and other environmental issues are reviewed quarterly at SHESC meetings and quarterly Qantas Board meetings. Internal reports are provided by Management to the Board through the quarterly Qantas Board Risk report and quarterly SHESC reports. On an annual basis, the Qantas Board and Audit Committee reviews sustainability (including climate change) progress as part of approving the Qantas Annual Report and Sustainability Reports. The SHESC and Audit Committee Charters can be viewed at http://www.qantas.com.au/travel/airlines/governance-structure/global/en#jump5

1.3a

Please explain how overall responsibility for climate change is managed within your company.

1.3b

Please explain how overall responsibility for climate change is managed within your company.

1.4

Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?
Yes

1.5

#### Please complete the table.

Who is entitled to benefit from those incentives?	The type of incentives
Management group	Monetary reward
Environment/sustainability managers	Monetary reward
All employees	Prize

#### **Further Information**

Sustainability risk management is governed by the Board of Directors and is reinforced through explicit performance targets. Performance Incentive Plans are in place for relevant executives that are assessed against an appropriate balance of Group and business segment measures and both financial and non-financial measures. For some executives GHG performance is part of the tailored business specific measures. To encourage employee engagement in environmental sustainability, a number of employee reward and recognition schemes are in place as part of the Qantas Group's group-wide 'begreen program'. The annual Environmental Excel Award program provides recognition and financial incentives for environmental improvement initiatives. In FY2009, Qantas in conjunction with the Great Barrier Reef Foundation rewarded selected employees who created environmental improvement initiatives with a trip to the Barrier Reef to research the impact of climate change on the Reef. These employees have become internal 'Ambassadors' on the issue.

#### **Attachments**

## **Module: Risks and Opportunities**

# **Page: Risks & Opportunities Identification Process**

2.1

Describe your company's process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.

The Qantas Group has a comprehensive enterprise-wide risk management process. Climate change and other environmental impacts form one of the long-term material risk categories for the Group. 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. Risk Policy The Qantas Group Risk Management Policy (policy) sets out the requirements and responsibilities for risk management across the Qantas Group. The policy is reviewed and updated on an annual basis or when required. The Qantas Group is committed to ensure carbon is embedded into enterprise wide risk management practices. This is demonstrated through the development of the 'Carbon Readiness Taskforce' represented by key management personnel in each of the major Qantas business units Risk Assessment Procedure All risks are managed through the Qantas Group Risk Assessment Guide (QRAG). Risks are categorised as very low to catastrophic. A likelihood and consequence matrix is used to determine these risk categories. Identified risks are placed on a Qantas Group Risk Register. High and extreme risks are reported to Executive Management monthly and to the Board of Directors quarterly. The Risk Assessment Guide is designed to: - provide guidance on applying the Qantas Group Risk Management Policy; and - assist areas to comply with the requirements of the "Risk assessment and mitigation" element contained within the Group management system. Carbon Risk Governance Climate change risk is subject to ongoing assessment (monthly) and review through the Carbon Readiness Taskforce (CRT). The CRT in conjunction with the internal Risk and Assurance department, review risks associated with impending emission trading schemes to ensure the controls in place are appropriate to minimise financial exposure to the Group. The financial consequence rating provides guidance on material impacts to the Group's operations. Existing management controls are focussed on minimising financial risk whilst providing opportunities to improve overall competitiveness. The Group governance structure facilitates the monitoring, oversight and escalation of risks to Executive Management and the Board. Business units and specialised groups such as the Carbon Readiness Taskforce, actively communicate material business risks in accordance with the governance structure.

Further Information	
Attachments	
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#### Page: Regulatory Risks

3.1

Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company?

Yes

Do you want to answer using:

3.2A

What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Cap and trade schemes	Other: Global	0 5	Australia, New Zealand and Europe: Mandatory carbon trading regimes are planned in three key markets where Qantas Group airlines operate: New Zealand (1 July 2010) and the European Union (1 January 2012) with a delay announced in Australia (2013). A US scheme is under discussion as is a Global Emissions Trading Scheme.
Emission reporting obligations	Australia	Current	Australia: In FY2009, Australia introduced a mandatory emission reporting scheme, the National Greenhouse and Energy Report (NGER) which covers domestic emissions.
Emission reporting obligations	Other: Europe	Current	EU: Qantas was required to submit an Emissions Monitoring, Reporting and Verification (MRV) Plan in

Risk	Region/Country	Timescale in Years	Comment
			August 2009 to the UK Government.
Other: Environmental Taxes	Other: Global	Current	Requirement for Governments to recover revenue lost in the global financial crisis by applying punitive environmental taxes on airlines. Examples of this have been seen in the United Kingdom with the Air Passenger Duty and Germany with the "ecological" departure tax.airlines.

3.2B

What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

3.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

Regulatory risks may add cost to the Qantas Group business, increase complexity and burden of reporting and management of the regulation and create competitive distortion amongst airlines. Indicators are that governments may also use airline passengers as a source of revenue raising under the guise of environmental taxes. Climate change is one of the most important issues facing the global community. Airlines contribute about 2% of man-made carbon dioxide globally. In Australia, domestic aviation contributes about 1% of the country's greenhouse emissions. Aviation's contribution to climate change has become a key issue for regulators globally, and other industry and community The aviation industry continues to be closely scrutinised and in recent years there has been a rapid proliferation of climate regulation both domestically and internationally. Regional emissions trading schemes (ETS) directly impacting aviation have been enacted in New Zealand (liquid fossil fuels to commence July 2010) and the European Union (to commence in Jan 2012). The Australian government has delayed the commencement of the Carbon Pollution Reduction Scheme (CPRS) until 2013. Initial proposals for the CPRS were that all of the Qantas Group domestic emissions would be covered by the scheme. Under the EU trading schemes, all flights arriving or departing from EU member state aerodromes will be required to account for carbon emissions produced within each flight sector (i.e. 1 sector = Singapore to London), from January 1, 2012 (irrespective of the nationality of the operator). This currently will cover the following Qantas Group return sectors: • Singapore to London • Singapore to Frankfurt • Bangkok to London • Hong Kong to

London. Any additional services to the EU introduced by either Qantas or Jetstar would also be included. The EU ETS is 'extra territorial', that is it extends regulatory obligations beyond the boundaries of European airspace and the carbon liability is calculated based upon the length of the city pairing into and out of the EU. Flights This introduces competitive distortion. Qantas and other Asian carriers are disadvantaged against Middle Eastern carriers solely on the basis that their city pair sectors into and out of the EU are shorter. The financial impact will be based on the Group's ability to 'pass through' carbon costs and will be dependent upon market and competitive conditions. The New Zealand ETS will cover Qantas Group domestic operations, operated by Jetstar. The scheme outlines that large users of jet fuel (> ten million litres) can take on the legal obligations themselves (by 'opting-in'), or can adopt the 'default' position where the fuel supplier is responsible for reporting, procuring, surrendering and administering permits on behalf of the 'user'. The costs will be 'passed-on' to the airline under the 'default' approach. The NZETS does not have a central government auction and participants managing 'point-of-obligation' (i.e. fuel suppliers) will need to source permits directly from New Zealand industry participants or international credits from the open market (Kyoto credits such as Certified Emission Reduction (CER's) for example). More prescriptive and often duplicated reporting obligations in Europe and Australia (National Greenhouse Energy Reporting System (NGERS) and Energy Efficiency Opportunities (EEO) are examples of the increasing compliance landscape. Many reporting requirements do not take the unique attributes of aviation into consideration therefore adding increasing administrative burden. Aviation is also exposed to the application of punitive government revenue raising under the guise of environmental taxes or to fund developing nation projects for example the UK Government's Aviation Passenger Duty (APD) and 'adaptation levies'. All of these schemes (trading schemes or taxes) will introduce significant compliance costs and in some regions, will introduce competitive distortions between airlines (for example the EU ETS) and transport modes (the planned Australian CPRS proposed waiving carbon charges on road transport but not domestic aviation).

3.4

Are there financial implications associated with the identified risks? Yes

3.5

#### Please describe them.

Increasing reporting requirements required by government organisations are often different and require costly systems to be implemented to enable compliance with the independent reports. Compliance with increasing "green tape" has financial implications. As described above, emissions trading schemes and proposed taxes introduce significant compliance costs to the business. The financial impact will be based on the Group's ability to 'pass through' carbon costs and will be dependent upon market and competitive conditions. With stated domestic emissions of 4.2 million tonnes, the estimated compliance costs for the Australian CPRS are between \$40m - \$80m. (based on a carbon price between \$10 and \$20 per tonne). Under the EU ETS, Qantas will be allocated up to 85% free allowances based on the report it submits for 2010.

3.6

# Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

The Qantas Group is committed to global efforts to reduce emissions. Measures to mitigate climate change are a core focus and a detailed climate change strategy has been developed and agreed. The Group's comprehensive 'four pillar strategy' recognises that the business is global in nature and articulates key strategic levers that underpin our environmental performance. The 'pillars' are outlined below: 1. Investing in technology: including new airframes, engines and accelerating the introducing new energy sources including sustainable aviation fuel and tri-generation electricity. 2. Improving aircraft operations: through a continued drive for maximum fuel efficiency and minimum weight from our existing fleet - our fuel conservation program has saved more than 1 million tonnes of CO2-e since 2005. 3. Working with Governments to improve infrastructure: through the roll-out of world leading technologies and procedures that improve air routes and air traffic management. 4. Working with governments to adopt more effective economic instruments: incentives to finance research and development in new technology, properly designed global climate policies (which do not create competitive distortions) and voluntary carbon offsets. The Group has set a fuel efficiency target 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 industry. This approach also achieves performance benchmarks that improve the overall profitability of the business. Carbon Readiness Taskforce Qantas established a Group-wide 'Carbon Readiness Taskforce' sponsored by the Chief Financial Officer and the Chief Risk Officer in 2007. The carbon readiness program is designed to provide a consistent Group-wide response providing effective carbon price risk management as well as the lowest cost of compliance. The taskforce is comprised of functional specialists to review and understand business risks and opportunities presented by carbon trading and compliance. Carbon and associated regulatory, accounting and systems requirements are being integrated and embedded into the Group's operations where applicable. Qantas has calculated its current and forward emissions profile and has plans in place to mitigate and/or manage impacts. The Group has met all carbon related compliance obligations to date: • In October 2009, the Group submitted its first mandatory 'Carbon Footprint' Report under the Australian Government's National Greenhouse and Energy Reporting (NGER) Act. The Group reported 4.2 million tonnes of CO2-e emissions for activities and entities under its 'operational control'. • In December 2009, the Group submitted a Monitoring, Reporting and Verification (MRV) Plan to the United Kingdom which will underpin the European Union Emissions Trading Scheme when it commences in January 2012. • The New Zealand Emissions Trading Scheme commenced on 1 July 2010 and applies to Jetstar domestic New Zealand operations. The scheme applies 'upstream' with fuel suppliers passing on the cost of carbon permits to the airline. Although regulatory uncertainty continues and the Australian Government has delayed the commencement of the Carbon Pollution Reduction Scheme (CPRS) until 2013, Qantas will continue to embed the cost carbon into reporting systems and long business planning. Through the International Air Transport Association (IATA), Qantas continues to press for a global sectoral' approach for the management of greenhouse emissions to minimise competitive distortions between airlines, industries and regions. Principles have been developed that permit the equal treatment of all airlines as specified by the Chicago Convention while still acknowledging 'Common But Differentiated Responsibilities' (CBDR) as set out in the Kyoto Protocol. Sustainable Aviation Fuels (SAFs) have the potential to mitigate much of the incremental carbon liability on the basis that 'biofuels' attract no or minimal carbon charge under proposed regulations, that is they are 'zero-rated'. The Group's SAF Strategy is outlined in more detail in Section 6.

3.7

Please explain why you do not consider your company to be exposed to significant regulatory risks - current and/or anticipated.

3.8

Please explain why not.

**Further Information** 

Attachments

#### Page: Physical Risks

4.1

Do current and/or anticipated physical impacts of climate change present significant risks to your company?

Yes

Do you want to answer using:

The table below

# 4.2A

# What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Induced changes in natural resources	Australia	Uncertain	Australia's natural assets such as the Great Barrier Reef are potentially at risk due to the implications of changing climatic conditions. These assets are fundamental to Australia's appeal as a tourist destination
Other: Changes in weather patterns	Other: Global	Uncertain	Changes in weather patterns such as jet stream activity and prevailing wind patterns impact aircraft performance and route planning.
Changes in frequency of extreme weather events	Other: Global	Uncertain	Changes in weather patterns such as potential increases in severe weather events cause significant disruption to operations

What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?

4.3

# Describe the ways in which the identified risks affect or could affect your business and your value chain.

Induced changes in natural resources Deterioration of Australia's natural tourism appeal may impact the Group's commercial success as well as the broader tourism industry. Changes in weather patterns Characteristics such as temperature, wind speed and direction and humidity are all determinants of aircraft performance. Changes in these conditions can impact the efficiency of aircraft on particular flight paths requiring changes in flight planning, including increased fuel burn. On particular routes where the range of the aircraft operating are impacted, the ability to carry full loads of passengers or freight may be adversely reduced. Frequency of extreme weather events Weather is critical in all aspects of aircraft operations. Weather events affecting airports such as fog, snow and thunderstorms can shut down or restrict operations as well as requiring additional fuel.

4.4

Are there financial implications associated with the identified risks? Yes

4.5

#### Please describe them.

Deterioration of natural assets In 2009, the Qantas Group carried 1.8 million inbound visitors to Australian. Any decrease in the appeal of Australia as a tourist destination could impact this number of tourists travelling to Australia and therefore Qantas Group passengers. In 2009 the national export revenue generated by Qantas inbound tourism is approximated at AUD \$5.8 billion. Changes in weather patterns and extreme weather events. The implications of weather related disruptions can include the following financial impacts - loss of revenue, - additional crewing costs, - additional fuel costs - displaced passengers and associated costs - resultant cancelled services - reduced aircraft utilisation and - Aircraft damage. Examples such as the 2010 Iceland Volcano eruption cost the Group between \$1.5 million and \$2 million dollars a day in disruptions costs.

4.6

# Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

While the Group has no direct control over the physical risks associated with climate change, it focuses on monitoring these risks, diversifying its operations, building capability in forecasting and managing disruptions, enhancing its crisis response capabilities, contributing to the protection of Australia's natural assets and internationally promoting Australia as a tourist destination. The Group has invested in additional capability and information to ensure minimum impacts to the Group's operations resulting from natural events such as tropical cyclones, tsunamis and volcanic eruptions. The following are examples of the actions taken to manage these risks: - Development and ongoing review of the Group's Fuel Policy, designed to enable safe and efficient operations. The policy states requirements dependent on the probability of weather related events. - In-house meteorological capability. Through Qantas Meteorological (QMET), skilled analysis of weather related information is linked to the Group's policies and procedures - Development of probability based risk assessments to assist in route and contingency planning based on the difference between forecast, expected and unforeseen events. - Forecast and real time flight planning functionality to optimise use of wind conditions that optimises the use of User Preferred routes. - Participation in the development of new

standards to manage issues such as volcanic eruptions. The Group's participation in developing these standards assists in safely minimising the disruption to the Group's operations. - Exploring options for partnerships with the Cooperative Research centre to further enhance predictive forecasting. -Ongoing research and development with Australian Climate and Weather Centre for Research (CAWR) The Group contributes to efforts to mitigate the impact of climate change through a broadbased fuel and environmental improvement program. As previously stated the group has a dedicated Environment and Fuel Conservation team driving an environment improvement program aimed at reducing the Group's impact on the environment. Qantas has donated AUD\$2 million to the Qantas Foundation Environmental Sustainability Fund to support environmental conservation programs with a focus on protecting Australia's natural assets. In 2009, the Qantas Foundation: • formed a partnership with Clean Up Australia Day • supported the Centre for Sustainability Leadership which is dedicated to empowering young people in Australia and beyond to make their communities more sustainable • partnered with Fauna and Flora International Australia to undertake conservation activities in the Great Sandy Biosphere •extended its partnership with the Great Barrier Reef Foundation, ZooX Fund. The ZooX Fund commissions research to achieve its vision of a resilient Reef successfully adapting to climate change • committed to Landcare Australia (Landcare) grassroots community sustainability projects, with a focus on water sustainability. The Group is also supporting an additional piece of climate change research in the Southern Ocean. The project, being undertaken by the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC) in partnership with the Great Barrier Reef Foundation, will enable the Foundation to better understand and respond to the impacts of a changing ocean on the Great Barrier Reef. Using special sensors mounted on the heads of elephant seals in the Southern Ocean, the project team - comprising researchers from CSIRO and the University of Tasmania - will collect data about the seals' behaviour and ocean conditions, such as temperature and salinity. The results will reinforce the value of the Southern Ocean as an early warning system for the corals and others species on the Great Barrier Reef, which are particularly sensitive to even small changes in water temperature and pH. Since 2008, Qantas has undertaken to promote environmental sustainability in the broader tourism supply chain through the Qantas Award for Excellence in Sustainable Tourism. The Award recognises and rewards tourism operators who set out to protect, enhance and promote Australia's distinctive destinations and environments. In 2009, AUD\$25,000 cash was provided to the winners. In support of the Award, Qantas has run a national seminar series for two years with 1000 people attending the free seminars. More than 85% of participants report having taken environmental sustainability actions since attending the workshops. To continue to market Australia internationally as a tourist destination Qantas have entered a three year AUD\$44 million dollar partnership with Tourism Australia. The partnership covers activity over three years including international cooperative marketing campaigns, major trade events, business events and public relations activities across Europe, Asia, US and New Zealand.

4.7

Please explain why you do not consider your company to be exposed to significant physical risks - current and/or anticipated.

4.8

Please explain why not.

**Further Information** 

**Attachments** 

### Page: Other risks

Does climate change present other significant risks - current and/or anticipated - for your company?

Yes

Do you want to answer using:

The table below

#### 5.2A

What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Reputational risks	Other: Globally	Current	Aviation is currently a carbon intensive industry. A perceived lack of action by the Qantas Group or industry in general could result in brand damage.
Market risks	Other: Globally	Current	Technology such as video conferencing may provide alternatives for face —to-face meetings therefore reducing demand for air travel.

5.2B

What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?

5.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

As awareness of climate change and its impacts increase the focus is turning to those industries perceived as being significant greenhouse gas contributors. In some parts of the world aviation has been identified as an industry with a growing emissions footprint. Negative perception about the industry may lead to increased calls for financial penalties, operating restrictions and brand damage to airlines. Any perceived inaction by individual airlines may lead to further negative assessment by customers. This may then lead to customers changing their decision to travel with that airline, impacting market share and revenue. Technology such as video-conferencing, webinars etc has the potential to provide an alternative to business travel. Any shifts in business behaviour towards this type of technology could reduce the demand for air travel and negatively impact on revenue. These impacts could have more significant impacts on premium airlines such as Qantas Airways with significant corporate and business passengers. In some parts of the world passengers switching to alternative forms of transport is also a risk, particularly Europe where train alternatives are more prevalent.

5.4

Are there financial implications associated with the identified risks? Yes

5.5

#### Please describe them.

Any negative impact on brand perception has the potential to have impacts on ability to form partnerships, attract new customers and community relations. Any reduction in passenger preferences due to brand perception or changing behaviour of business organisations will impact revenue.

5.6

# Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.

As outlined in Section 4, Qantas has a comprehensive climate change strategy in place and has been committed to transparent reporting since 2007. Qantas has identified a need to ensure that it continues to improve communications with stakeholders to ensure that its efforts are well understood. The Group's communication objective is to ensure the perception of its operations are reflective of its environmental commitment and activity. The use of company websites, publications, executive presentations and media releases are used for this purpose. Regular customer feedback is requested through direct surveys and websites for regular monitoring of effectiveness and to understand customer perception of performance. Commercially, there is a growing trend for many corporate and government customers to request that their major suppliers demonstrate sustainability performance as part of commercial negotiations. In response to these changed expectations, the Group made a commitment to transparent reporting of sustainability performance in the Annual Report four years ago. This has been expanded into leading sustainability indexes, FTSE4Good and Dow Jones Sustainability Index (DJSI) as well as the global Carbon Disclosure Project. The Group's commitment to transparency also enables it to obtain external recognition/feedback on the environmental and climate change strategies. The Group regularly engages with NGO's and community groups to openly discuss environmental issues. Complementing the extensive activity to reduce the Group's environmental footprint, in 2007 the Qantas Group airlines launched the "Fly Carbon Neutral" program. The program provides customers the opportunity to offset their share of flight emissions through Australian Government accredited programs. This program is made available to customers booking their flights through gantas.com and jetstar.com. In addition to this online program, tailored carbon emission reporting was developed for Qantas Corporate Customers. Reports are available for Corporate Customers outlining the emissions attributable to their company's business travel. The option of offsetting these emissions is also available through this program. . .

5.8	
	Please explain why not.
Furti	ner Information
Attac	chments
Pag	e: Regulatory Opportunities
6.1	
	Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?
	Yes
	Do you want to answer using:

Explain why you do not consider your company to be exposed to other significant risks - current and/or anticipated.

# 6.2A

The table below

What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?

Opportunities	Region/Country	Timescale in Years	Comment
Other: Zero rating of biofuels	Other: Australia/Europe	0 5	Current guidance provided within Emission trading schemes in Australia and the European Union indicate that the use of biofuel will not incur carbon costs.
Other:	Australia	0 5	Focus on

Opportunities	Region/Country	Timescale in Years	Comment
Improvement in environmental efficiency			reporting and disclosing environmental performance may result in further improvements in environmental performance.
Other: Creation of regulations that do not create competitive distortion and provide incentives for improvement	Other: Globally	0 5	The design of effective carbon regulatory frameworks will avoid creating competitive distortions and provide incentives for organisations to invest in research and development.

#### 6.2B

What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?

#### 6.3

# Describe the ways in which the identified opportunities affect or could affect your business and your value chain.

The changing regulatory environment has the potential to positively impact the Group's carbon efficiency and therefore its overall environmental footprint. Qantas has a comprehensive climate change strategy which includes working to accelerate the commercialisation of Sustainable Aviation Fuels (SAFs) that have the potential to mitigate much of the incremental carbon costs. This is on the basis that 'biofuels' attract no or minimal carbon charge under proposed regulations, ie. they are 'zero-The opportunity to have aircraft using Sustainable Aviation fuels provides benefits by reducing the carbon intensity of the operations and providing an alternative energy supply to traditional jet fuel. As an Australian airline group the opportunities available from Sustainable Aviation Fuel are magnified. Australia has the unique characteristics of abundant land, access to Asia, geopolitical stability, favourable weather conditions and existing distribution infrastructure that make developing and producing biofuel sourced sustainable fuel possible. Governments will need to adopt more effective economic instruments that provide incentives to finance research and development in new technology and properly designed global climate policies that do not create competitive distortions. Each of the these areas have the potential to significantly improve fuel efficiency and reduce emissions intensity - improving environmental performance and profitability. Opportunities from participating in the design of legislative/economic instruments that do not create competitive distortions are particularly important for Australian based carriers due to the ultra long haul sectors required to reach major destinations.

Are there financial implications associated with the identified opportunities?

6.5

#### Please describe them.

Regulatory opportunities have the potential to reduce operating costs or avoid additional costs on the Qantas Group. Sustainable aviation fuel may reduce operating costs through reducing carbon costs and providing competition in the fuel market potentially leading to lower costs. With a focus on carbon pricing there may be an increasing focus on reducing energy costs and promoting innovation. Early action on any energy related activity may avoid the impact of future increasing costs for resources such as fuel and energy.

6.6

Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.

Qantas is committed to taking a leading role in the development of sustainable alternatives to traditional fossil fuels in our region. Cleaner jet fuels promise to significantly reduce the environmental impact of aviation. To be acceptable for use, these new fuels must meet aviation's stringent safety, performance and sustainability standards. Significant progress has been made in the past three years in addressing the technical challenges of developing fuels using bio-derived sources such as oil from trees, algae and plants. Importantly, these fuels must also be a direct 'drop-in' substitute for traditional jet fuels (Jet A-1) to avoid having to redesign engines, airframes or fuel delivery systems. A number of successful test flights indicate that bio-derived fuels can meet or exceed traditional JET-A1. These promising results are leading to expectations of an earlier timeline for a fuel certification with a 50:50 blend for use in commercial flights, now expected for 2011. The challenges now centre on scale, commercial viability, environmental sustainability and selecting the most suitable biomass for the Australian climate and geography. The Group has been involved in a number of activities designed to accelerate the commercialisation of sustainable aviation fuel in Australia: • Qantas joined the Sustainable Aviation Fuel Users Group (SAFUG), a global group of leading airlines and aviation companies working together with scientific agencies and leading environmental non-government organisations (NGOs) to develop cleaner jet fuels • Launched a world-first 'Roadmap' study in conjunction ASAFUG and the CSIRO, Australia's peak science agency. The Roadmap is addressing barriers to a commercial and scalable sustainable aviation fuels industry bringing together a diverse group including aviation, scientific, traditional fuel supply, government and community stakeholders with different expertise and perspectives. A number of other activities that will accelerate this agenda are in planning phases that will be announced in due course. As outlined previously, Qantas is taking an active role domestically and internationally in pressing for climate change regulations that are harmonised and do not introduce competitive distortion. This work is undertaken through participation in available consultation forums and sessions as well as through expressing views in public. To further drive emission reduction activities within the Qantas Group, capitalising on environmental reporting obligations the following activities have been established - Fuel and environmental working groups dedicated to identify and implement emission reduction activities, Training programs to promote energy efficiency for employees enabled through government funding for employee education. - Employee reward and recognition programs to provide incentives for measureable improvements around fuel, energy, water and waste reduction and - Expanded monitoring of fuel and energy related costs throughout the business.

6.7

Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.

	Please explain why not.
Furth	er Information
Attacl	nments
Page	: Physical Opportunities
7.1	Do current and/or anticipated physical impacts of climate change present significant
	opportunities for your company? No
	Do you want to answer using:
	The table below
7.2A	What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?
	Opportunities Region/Country Timescale in Years Comment
7.00	
7.2B	What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?
7.3	Describe the ways in which the identified opportunities affect or could affect your business and your value chain.
7.4	Are there financial implications associated with the identified opportunities?

7.5	Please describe them.
7.6	Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.
7.7	
	Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.
	Potential physical changes resulting from climate change are unlikely to present significant opportunities for the Qantas Group. The Qantas Group's primary business is the air transportation of passengers and freight. Any potential opportunities would need to provide advantages through the opening of new markets, increasing demand for air travel over other modes of transport or reducing costs of the business. The Qantas Group's route network serves 173 destinations in 42 countries (including those covered by code share partners) in Australia, Asia and the Pacific, the Americas, Europe and Africa. Changes in potential tourist destinations resulting from changing climate conditions may open up new routes. However these same changes may also make existing tourist destinations less popular impacting existing route profitability. Other physical changes that may have positive impacts on the supply chain are unlikely to be relevant to kerosene fuel supply or aircraft manufacturing, the group's biggest procurement spend.
7.8	
	Please explain why not.
Furth	er Information
Attac	hments

8.1

Does climate change present other significant opportunities - current and/or anticipated - for your company? Yes

Do you want to answer using:

The table below

#### 8.2A

What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?

Opportunities	Region/Country	Timescale in Years	Comment
Other: Improvement in Air Traffic Management Infrastructure	Australia	0 5	Air Traffic Management is an important component in the Aviation Supply Chain. This activity provides a significant opportunity for improved efficiency in the system. The Air Traffic management Service Providers are generally State run organisations.

# 8.2B

What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?

8.3

Describe the ways in which the identified opportunities affect or could affect your business and your value chain.

Improvements in Air Traffic efficiency could provide the following benefits - Improvement in fuel efficiency through optimised aircraft performance and reduced flying distances - Schedule integrity. Reduction in delays and aircraft holding enables better on-time performance and reduction in flow-on impacts. - System capacity improvement and - Reduction in noise for airport communities Improvements in these areas may reduce costs for the organisation and improve customer satisfaction.

8.4

Are there financial implications associated with the identified opportunities? Yes

#### Please describe them.

It is estimated by IATA that improvements in Air Traffic Management could improve fuel efficiency by greater than 10%. With a fuel as one of the largest line item costs for the Qantas Group any improvement in efficiency will have direct financial benefits.

8.6

# Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.

The Qantas Group actions to maximise this opportunity are around investment and deployment of leading edge technology, actively driving industry forums for improved air traffic management and engaging with government to influence and incentivise take-up of these technologies. Operational measures continue to be implemented and today are reliant on Air Service Navigation Providers (Airservices Australia (AsA), Federal Aviation Administration (FAA)). General airspace efficiency and more favourable airport infrastructure and capability are also high on the Group's agenda. Group's investment in aircraft technology allows the deployment of new navigation techniques and procedures, some of which have been world leading and have resulted in an advantage over our competitors. These initiatives have the potential to deliver large financial and environmental benefits. Performance Based Navigation (PBN) and new techniques such as Required Navigation Performance (RNP) improve predictability and accuracy of aircraft flight paths. This investment in technology has been complemented by significant increase in training to capitalise on the aircraft's capability. Communities and their appointed representative bodies are expecting greater involvement in the decision-making process regarding local airport and flight related issues and Qantas is an active participant in community forums. Continued roll out of the Required Navigation Performance (RNP) program across Australia is enabling more efficient, safer and noise sensitive flight paths to be flown and the Qantas Group is currently the only airline group in Australia deploying this technology. For services into Los Angeles (LAX), Qantas is engaged in a program of Tailored Arrivals, a process that optimises the arrival flight path. This program complements our existing Tailored Arrival program in San Francisco (SFO). In addition, continued procedural improvement associated with Free Flight (Improved flight planning) and Dynamic Airborne Route Planning (DARP) (a process that enables flight plans to be recalculated whilst the aircraft is in-flight), continue to benefit the Groups fuel and Qantas also takes a leadership role at the Air Traffic Management environmental performance. Performance Group (ATMPG) with Government stakeholders to influence and prioritise airspace activities that deliver benefit to industry including community relations aspects

8.7

Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.

8.8

Please explain why not.

**Further Information** 

#### **Attachments**

**Module: Strategy** 

**Page: Strategy** 

9.1

Please describe how your overall group business strategy links with actions taken on risks and opportunities (identified in questions 3 to 8), including any emissions reduction targets or achievements, public policy engagement and external communications.

The Group strategy of achieving sustainable returns to shareholders has 6 key elements - Safety, - Optimised aircraft and routes - Operational Efficiency - Customer Service - Complementary brands and - Great people. The alignment of this strategy to the Group's Environment strategy is clear through Optimised aircraft and routes, operational efficiency and great people. The Qantas Group Environment strategy outlines the goal of being recognised as a leading airline Group committed to creating a cleaner future through caring for the environment. It has three strategic outcomes; "Environmentally sustainable and efficient operations", "Competitiveness not compromised by the regulatory environment" and "Engaged people and communities". These areas focus on managing the key environmental risks as well as capitalising on the potential environmental and climate change opportunities. Within these areas the Group has key performance metrics including those around carbon intensity and cost of compliance.

**Further Information** 

**Attachments** 

# Page: Strategy - Targets

9.2

Do you have a current emissions reduction target?

Yes

9.3

Please explain why not and forecast how your Scope 1 and Scope 2 emissions will change over the next 5 years. (If you do not have a target)

9.4

Please give details of the target(s) you are developing and when you expect to announce it/them. (If you are in the process of developing a target)

Please explain if you intend to set a new target. (If you have had a target and the date for completing it fell within your reporting year, please answer questions 9.5 and 9.6)

9.6

**Please complete the table.** (If you have a current emissions reduction target or have a recently completed target)

Target Type	Value of Targe t	Unit	Bas e year	Emissions in base year (metric tonnes CO2-e)	Targe t Year	GHGs and GHG sources to which the target applies	Target met?	Comment
Intensity target	16.50	Other: Litres fuel per 100 RTK	2009	12027918.0000 0	2020	Scope 1	Target ongoin g	Target is to improve fuel efficiency per revenue tonnes kilometres by 16.5% by 202040.1 Litres (Fuel per 100 RTKs) - or an average of 1.5% per annum improvemen t between 2009 and 2020
Other: Electricity Reductio n	10.00	% reductio n from base year	2007	235298.00000	2011	Scope 2 (electricit y only)	Target ongoin g	Target is to reduce electricity consumptio n by 10% by 2011.

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#### **Attachments**

Is question 9.7 relevant for your company?

Yes

9.7

# Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Action s - please descri be	2. Annu al energ y savin g	3. Ann ual ener gy savi ngs - num ber	4. Ann ual ene rgy savi ng - unit s	5. Annu al emis sion redu ction in metri c tonn es CO2- e	6. Reduc tion - achie ved or antici pated	7. Invest ment - numb er	8. Invest ment - curre ncy	9. Mon etary savin gs - num ber	10. Mon etary savin gs - curre ncy	11. Mon etary savin gs	12. Timesc ale of actions & associ ated invest ments (if relevan t)
Reducti on in Auxillar y Power Unit fuel use	Achie ved	2125 560	Oth er: kg Avia tion Fuel	6980	Achiev ed		Insigni ficant costs - not quantif ied			Not relev ant	
Aircraft Weight Reducti on	Achie ved	6378 807	Oth er: kg Avia tion Fuel	2094 9	Achiev ed		Insigni ficant costs - not quantif ied			Not relev ant	
Flight Plannin g Optimis ation	Achie ved	4459 540	Oth er: kg Avia tion Fuel	1464 5	Achiev ed		Insigni ficant costs - not quantif ied			Not relev ant	
Installa tion of Trigene ration facilitie s	Antici pated	1230 0	Oth er: MW H (Me ga Watt Hou rs)	1094 7	Anticip ated		Insigni ficant costs - not quantif ied			Not relev ant	2011
Fleet Renew al Progra m ( over next 10 years). The annual	Antici pated	9976 02	Oth er: tonn es of Avia tion Fuel	3181 685	Anticip ated					Not quant ified	Investm ent in new fleet is over a 10 year period. The emissio n

1. Action s - please descri be	2. Annu al energ y savin g	3. Ann ual ener gy savi ngs - num ber	4. Ann ual ene rgy savi ng - unit s	5. Annu al emis sion redu ction in metri c tonn es CO2- e	6. Reduc tion - achie ved or antici pated	7. Invest ment - numb er	8. Invest ment - curre ncy	9. Mon etary savin gs - num ber	10. Mon etary savin gs - curre ncy	11. Mon etary savin gs	12. Timesc ale of actions & associ ated invest ments (if relevan t)
emission reducti on is the estimat ed benefit from the fleet related efficien cies in the year 2020. Incremental savings will be generat ed as new aircraft enter the fleet. These estimat es have not been include d in this analysi s.											reduction is the estimated reduction in CO2-e in 2020 resulting from the efficiency improvements from the fleet renewal program.

9.8

Please explain why not.

# Please provide any other information you consider necessary to describe your emission reduction activities.

At Qantas, it is recognised that fuel consumption represents the Group's largest environmental impact. That is why there is are dedicated pilots, engineers and flight planners on our team of Environment and Fuel Conservation experts working hard to reduce fuel consumption and improve operating efficiency. The fuel conservation efforts have saved over 1 million tonnes of CO2-e since 2005. The Qantas Group has set a fuel reduction target to achieve by 2020. By then, the aim is to deliver an improvement in fuel efficiency by an average of 1.5% per year to 2020 (measured as litres of fuel/100 Revenue Tonne Kilometres - RTKs). As a member of the International Aviation Transport Association (IATA), the Qantas Group has endorsed the IATA's stated vision to achieve carbon neutral growth and to see the airline industry operating with no net carbon emissions within 50 years. Improving the Group's fuel efficiency is a major part of the environmental improvement strategy. As fuel use accounts for greater than 95% of the Group's business' climate change impact, fuel efficiency is seen as one of the company's greatest opportunities to minimise its footprint. Fuel Conservation activities include the following key ares: (a) Investing in Newer, More Efficient Aircraft One highly effective way of improving the Group's fuel efficiency is by investing in new generation fuel efficient aircraft. The fuel efficiency and lower emissions technology of newer aircraft will contribute significantly to the cost and environmental savings required for the Qantas Group's long term sustainability. (b) Advanced Navigational Aircraft Technology To improve fuel efficiency, the Group is constantly implementing and adopting innovative navigational and operational technologies. These include: - Required Navigation Performance (RNP) - Automatic Dependent Surveillance - Broadcast (ADS-B) - Dynamic Aircraft Route Planning (DARP) - Tailored ArrivalsConstant Descent Approaches (CDAs) - Electronic Flight Bag (EFB). (c) Reducing Aircraft Weight Reducing the weight of aircraft is another way that effectively improves fuel efficiency. Weight reductions are primarily achieved in the following areas: -Optimising the food, drink and catering equipment carried onboard is an effective way of reducing weight. - Investing in lighter equipment onboard helps reduce load without impacting customer service. Innovations in lighter seats and carpets, catering equipment, meal trolleys and stowage containers are examples of some of the things we've successfully replaced. - Replacing cargo containers with light weight options has helped reduce this element of aircraft weight. - Improving processes in estimating the final aircraft freight weight reduces the transportation of unnecessary fuel. (d) Flight Planning Improvements Flight plans can change the amount of fuel burnt. Rather than always flying the same path between locations, improvements in the accuracy of the Group's flight planning systems create the most fuel efficient path possible. (e) Improved Aerodynamic Performance Optimising the aerodynamic performance of the Group's aircraft contributes to the fuel efficiency of its operations. Improve aircraft aerodynamics by conducting regular aircraft and engine compressor washes and flight control rigging checks. (f) Improved Schedules Fuel efficiency improvements can also be achieved by enhancing scheduling decisions. For example, adjusting the timing of flights enables the Group to achieve better fuel efficiency. Scheduling can also shorten holding periods. The Qantas Group works with Air Traffic Service Providers (ATSPs) to improve holding patterns and even improve its noise footprint. (g) Optimised Loading The way an aircraft is loaded can also impact the fuel efficiency of a flight.

9.10

Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?

Yes

9.11

#### Please describe.

Qantas is actively engaged with policy makers in many jurisdictions (including the European Union, Australia and New Zealand) on the issue of trading schemes and complementary policies, such as tax incentives, that will accelerate our transition to lower emissions. We will continue to press for harmonised schemes that create a level playing field for all participants. Engagement has included, but was not limited to participation in consultation programs, attendance at government facilitated workshops and direct engagement with Policy makers. In addition the Group's position for a global approach to climate change and the need to accelerate the development of a sustainable aviation fuel industry and enhanced air traffic infrastructure are well known.

#### **Further Information**

#### **Attachments**

# Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: Emissions Boundary - (1 Jul 2008 - 30 Jun 2009)

# 10.1

Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which financial control is exercised per consolidated audited financial statements

#### 10.2

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions within this boundary which are not included in your disclosure?

Yes

# 10.3

# Please complete the following table.

Source	Scope	Explain why the source is excluded
International Facilities	Scope 2	The majority of the properties occupied outside of Australia consist of leased space within multi user facilities. In many cases this area is shared with other organisations. Information regarding emissions from overseas facilities is considered non-material.
Ground Fuel –	Scope 1	The majority of the

Source	Scope	Explain why the source is excluded
International operations		Group's ground handling functionality in overseas ports is outsourced. Information regarding emissions from these sources is difficult to obtain and considered non-material.

#### **Further Information**

#### **Attachments**

#### Page: Methodology - (1 Jul 2008 - 30 Jun 2009)

#### 11.1a

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions and/or describe the procedure you have used (in the text box in 11.1b below).

# Please select the published methodologies that you use.

Australia - National Greenhouse and Energy Reporting Act

# 11.1b

#### Please describe the procedure that you use.

Aviation Fuel – data collection and reporting process Flight schedule information is exported directly into the operational systems. Simultaneously, suppliers fuel dockets are imported directly into the accounting system. Accounts Payable verify fuel invoices (fuel purchased) against flight schedules (flights and flying hours) to ensure fuel purchased matches fuel consumed. Aviation fuel Co2e calculation The amount Carbon Dioxide Equivalent (CO2-e) generated from aviation fuel consumption. = aviation fuel consumption \* NGA emission factor for Aviation Turbine Emission Factor Scope 1 = aviation fuel consumption \* 2.56 Ground fuel (petrol and diesel) - data collection and reporting process: Ground fuel consists of diesel and unleaded petrol used by Qantas Group Airport ground vehicles in Australia only. Ground fuel suppliers invoice Accounts Payable for the actual deliveries for the month. Accounts Payable reconciles volumes consumed against invoice data. Ground fuel (petrol and diesel) Co2-e calculation: The amount of Carbon Dioxide Equivalent (CO2 -e) emissions generated by Qantas Group airport ground vehicles. = ground fuel consumption \* NGA emission factor for transport fuels, emission factor Scope 1 – motor gasoline (petrol) or diesel (automotive diesel oil). Co2-e emission from ground fuel unleaded consumption = ground fuel

unleaded \*2.38 Co2-e emission from ground fuel diesel consumption = ground fuel diesel \* 2.7 Natural gas - data collection and reporting process: The Qantas Group uses an external service provider for utilities data management and reporting. The external service provider liaises directly with energy suppliers, validates and checks invoices to identify any errors and follows up exceptions if they arise. Data trends and analysis is reported through an online reporting tool. Scope 2 emissions – electricity data collection and reporting progress: Electricity consumption data is collected by an external service provider and the process is same as natural gas. Scope 2 emissions – electricity Co2e calculation: The amount of Carbon Dioxide Equivalent (CO2 -e) emissions generated by Electricity. The amount of Carbon Dioxide Equivalent (CO2 -e) emissions = = Total of each state (electricity consumption (based by state) \* NGA emission factor Scope 2 for electricity consumption.

#### 11.2

Please also provide the names of and links to any calculation tools used.

Please select the calculation tools used.	
Other: In house calculation tools used.	

#### 11.3

Please give the global warming potentials you have applied and their origin.

Gas	Reference	GWP
Carbon dioxide	Other: National Greenhouse Accounts (NGA) Factors – June 2009 – Appendix 1	1
Methane	Other: National Greenhouse Accounts (NGA) Factors – June 2009 – Appendix 1	21
Nitrous oxide	Other: National Greenhouse Accounts (NGA) Factors – June 2009 – Appendix 1	310

#### 11.4

Please give the emission factors you have applied and their origin.

Fuel/Material	Emission Factor	Unit	Reference
Jet kerosene	2.56	Other: CO2- e/kL	National Greenhouse Accounts

Fuel/Material	Emission Factor	Unit	Reference
			(NGA) Factors – June 2009 – Table 4
Other: Ground Fuel - Unleaded Petrol	2.38	Other: CO2- e/kL	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 4
Other: Ground fuel - Diesel	2.70	Other: CO2- e/kL	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 4
Natural gas	51.33	metric tonnes CO2 per GJ	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 2
Other: Purchased Electricity – ACT	0.89	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased Electricity – NSW	0.89	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased Electricity – NT	0.68	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased Electricity – QLD	0.89	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased Electricity – SA	0.77	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased	0.23	Other: CO2-	National Greenhouse

Fuel/Material	Emission Factor	Unit	Reference
Electricity – TAS		e/kwh	Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased Electricity – VIC	1.22	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5
Other: Purchased Electricity – WA	0.84	Other: CO2- e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5

Further In	formation
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# **Attachments**

# Page: Emissions Scope 1 - (1 Jul 2008 - 30 Jun 2009)

12.1

Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.

12047495

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Is question 12.2 relevant to your company?

12.2

Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.

Country	Scope 1 Metric tonnes CO2-e
Australia	4007170
Other: Rest of the world	8040325

### 12.3

Please explain why not.

#### 12.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)

Business Division	Scope 1 Metric tonnes CO2-e
Ground Fuel	19577
<b>Aviation Fuel</b>	12027918

### 12.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by facility. (Only data for the current reporting year requested.)

Facilities	Scope 1 Metric tonnes CO2-e

ż

Is question 12.6 relevant to your company?

No

### 12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)

# 12.7

# Please explain why not.

Carbon dioxide is the most significant gas produced by Aviation.

Is question 12.8 relevant to your company?

12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

48076045

12.9

Please explain why not.

ż

Is question 12.10 relevant to your company?

#### 12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Other: Ground Fuel	78797.00
Jet kerosene	47997248.00

12.11

Please explain why not.

### 12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Less than or equal to 2%	Extrapolation	CO2-e emissions from aviation are directly related to

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
		aircraft fuel consumption. Accrual data is only used whre invoices have not been received from suppliers. In these cases the accrual is estimated using known aircraft fuel burn rates.

### **Further Information**

# **Attachments**

# Page: Emissions Scope 2 - (1 Jul 2008 - 30 Jun 2009)

13.1

Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.

244252

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Is question 13.2 relevant to your company?

13.2

Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.

Country	Metric tonnes CO2-e
Other: Elec ACT (Australia)	3094
Other: NSW (Australia)	108474

Country	Metric tonnes CO2-e
Other: NT (Australia)	556
Other: QLD (Australia)	39026
Other: SA (Australia)	3296
Other: TAS (Australia)	351
Other: VIC (Australia)	63206
Other: WA (Australia)	10389
Other: Natural Gas (Australia)	15855

13.3

Please explain why not.

13.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)

Business division name	Metric tonnes CO2- e

13.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by facility. (Only data for the current reporting year requested.)

Facility name	Metric tonnes CO2-e

ż

Is question 13.6 relevant to your company?

Yes

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.	MWh
Electricity	240005
Heat	85799

13.7

Please explain why not.

13.8

Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
More than 2% but less than or equal to 5%		Estimation of data is required when timeliness of receipt of data is required. It is common for utility invoices to be supplied for a 3 month period. The accrual methodology is regularly reviewed for accuracy against actual data once available.

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# **Attachments**

Page	: Emissions Scope 2 Contractual
14.1	Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?  Yes
14.2	You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2-e.
14.3	Explain the origin of the alternative figure including information about the emission factors used and the tariffs.
14.4	Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?  No
14.5	Please provide details including the number and type of certificates.  Type of certificates  Comments

**Further Information** 

**Attachments** 

#### Page: Emissions Scope 3

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Is question 15.1 relevant to your company?

Yes

Please provide data on sources of Scope 3 emissions that are relevant to your organization.

Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
Waste generated in operations		Waste disposal figures in tonnes are provided by the Group's waste contractors. Emission factors from the National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5 are used to determined CO2-e.	Waste is generated from administration facilities, engineering operations, airports, catering centres and inflight product. Waste data is reported internally and is currently undergoing external verification. Waste data is estimated to be less than half a percent of the Group's total emissions.
Business travel		Emissions relating to Taxi and Accomodation on company travel are estimated internally. Taxi emissions are determined by using the total spend of taxis by Group employees, a \$ per km value and the the emission factor for petrol. Accommodation emissions were estimated using hotel spend multiplied by an average emission per hotel room rate.	The flight component of employee business travel is included within the Scope 1 emissions as most of this travel is conducted on Qantas Group services. Analysis of the emissions attributable to other travel activities, ie accommodation and ground transport have been shown that this is insignificant.

15.2	Please explain why not.
Furth	er Information
Attacl	nments
Page	: Emissions 7
16.1	
	Does the use of your goods and/or services enable GHG emissions to be avoided by a third party?
	No
16.2	Please provide details including the anticipated timescale over which the emissions are avoided, in which sector of the economy they might help to avoid emissions and their potential to avoid emissions.
Ś	
	Is question 17.1 relevant to your company?
	No
17.1	Please provide your total carbon dioxide emissions in metric tonnes CO2 from the combustion of biologically sequestered carbon i.e. carbon dioxide emissions from burning biomass/biofuels.

# Please explain why not.

17.2

The Qantas Group currently does not use any significant quantities of biofuels. As stated in section 6 the group is committed to accelerate the commercialisation of Sustainable Aviation Fuels.

### **Further Information**

#### **Attachments**

### Page: Emissions 8

#### 18.1a

Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
0.85	Kilograms CO2-e	1	AUD (\$)	Revenue	

### 18.1b

Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

Oil and gas sector companies are also asked to report activity-related intensity metrics in answer to table O&G1.3.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity- related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
105.00	Kilograms CO2-e	Other: per 100 revenue tonne kilometres	Revenue Tonne Kilometres (RTK ) are a standard industry metric used to quantify the amount of revenue generated payload carried, taking into account the distance flown. RTK's comprise the passengers; freight and mail carried multiplied by the Great Circle Distance, which is a standard published distance between two airports.

19.1

Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?

Yes

19.2

# Please explain why they have varied and why the variation is significant.

Scope 1 and Scope 2 emissions reduced by over 400,000 tonnes of CO2-e between 2008 and 2009. This is equivalent to a 3% reduction in Qantas Group's CO2-e emissions from 2008 to 2009. A 400,000 tonne reduction in emissions is considered significant. This reduction is greater than the entire

Scope 2 emissions for the Qantas Group. The significant component of the decrease can be attributed to effective capacity management when passenger demand declined throughout this period. This resulted in a reduction in available seat kilometres of 1.9%. A smaller contribution to this reduction is attributable to the continued fuel efficiency improvement activity.

#### 20.1A

Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
More than 80% but less than or equal to 100%	More than 80% but less than or equal to 100%	Not verified

#### 20.1B

I have attached an external verification statement that covers the following scopes:

Scope 1 Scope 2

### **Further Information**

#### **Attachments**

https://www.cdproject.net/Sites/2010/41/15341/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Emissions-Other2/QantasFinancialReport200914Sustainability.pdf

### **Page: Emissions 9 Trading**

#### 21.1

# Do you participate in any emission trading schemes?

We don't currently, but anticipate participating in emissions trading within the next two years.

### 21.2

Please complete the following table for each of the emission trading schemes in which you participate.

Scheme name	Period for which data is supplied.	Allowances allocated	Allowances purchased	Verified emissions - number	Verified emissions - units	Details of ownership
	Mon 01 Jan 0001 - Mon 01 Jan 0001					

#### 21.3

# What is your strategy for complying with the schemes in which you participate or anticipate participating?

Our strategy for compliance with anticipated emissions trading schemes is based on continual improvement of the efficiency of the Group's operations, establishment of a Carbon Trading Taskforce to provide effective carbon price risk management and working to accelerate the commercialisation of Sustainable Aviation Fuel. Qantas established a Group-wide 'Carbon Readiness Taskforce' sponsored by the Chief Financial Officer and the Chief Risk Officer in 2007. The carbon readiness program is designed to provide a consistent Group-wide response providing effective carbon price risk management as well as the lowest cost of compliance. The taskforce is comprised of functional specialists to review and understand business risks and opportunities presented by carbon trading and compliance. Carbon and associated regulatory, accounting and systems requirements are being integrated and embedded into the Group's operations where applicable. Qantas has calculated its current and forward emissions profile and has plans in place to mitigate and/or manage impacts.

#### 21.4

# Has your company originated any project-based carbon credits or purchased any within the reporting period?

Yes

#### 21.5

Please complete the following table.

Credit origin ation or credit purch ase?	Project identific ation	URL link to project documentation	Verifie d to which standa rd?	Num ber of cred its (met ric tonn es of CO2 -e)	Cred its retir ed?	Purpos e e.g. compli ance
Credit Purcha se	Energy Efficienc y Credits - Fieldforc e	http://www.climatechange.gov.au/en/govern ment/initiatives/greenhouse- friendly/abatement-providers.aspx	Other: Australi an Govern ment – Greenh ouse Friendl y	3145 12	Yes	Volunta ry Offsetti ng

Furth	er Information
	nments
	ule: Climate Change Communications  : Communications 1
22.1	
	Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?
	Yes
22.2	
	In your Annual Reports or other mainstream filing? (If so, please attach your latest publication(s).)
	Yes
22.3	
	Through voluntary communications such as CSR reports? (If so, please attach your latest publication(s).)
	Yes
Furth	er Information
A44 = 1	
Attac	nments
	https://www.cdproject.net/Sites/2010/41/15341/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Communications/QantasFinancialReport200914Sustainability.pdf
	https://www.cdproject.net/Sites/2010/41/15341/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Communications/QantasAnnualReport200918Sustainability.pdf

CDP 2010 Investor CDP 2010 Information Request