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.

0.2

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

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Wed 01 Jul 2009 - Wed 30 Jun 2010

0.3

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

0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

AUD ($)

0.5

Please select if you wish to complete a shorter information request

0.6

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 (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will be marked as default options to your information request. If you want to query your classification, please email respond@cdproject.net.
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 https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Module: Management [Investor]

Page: 1. Governance

1.1

Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

Please identify the position of the individual or name of the committee with this responsibility

i) Name of the committee

The Board's Committee for Health, Environment, Safety and Security (CHESS).

ii. Description of its position in the corporate structure.

The CHESS Committee has overall responsibility for climate change related issues.

The company's progress and status with regard to climate change and other environmental issues are reviewed quarterly at CHESS meetings and quarterly at Qantas Board meetings.

Internal reports are provided by Management to the Board through the quarterly Qantas Board Risk report and quarterly CHESS reports.

The CHESS Charter can be viewed at http://www.qantas.com.au/infodetail/about/corporateGovernance/SESCCharter.pdf

1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Management group	Monetary reward	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 environmental and GHG performance is part of the tailored business specific measures. KPI: Fuel efficiency target, GHG performance, financial & non-financial measures
All employees	Monetary reward	To encourage employee engagement in environmental sustainability, a number of employee reward and recognition schemes are in place. The annual Environmental Excel Award program provides recognition and financial incentives for environmental improvement initiatives. In FY2010, Qantas in conjunction with the Great Barrier Reef Foundation also 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. KPI: Projects that have raised awareness and demonstrated a measurable benefit in improving the environmental performance of Qantas (reduction in emissions, waste, resource consumption, noise, air quality, soil or water contamination, flora and fauna, European and indigenous heritage, land management, community engagement.)

Page: 2. Strategy

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

A specific climate change risk management process

2.1a

Please provide further details (see guidance)

i. Scope of risk management process
All risks related to climate change are considered as part of a specific climate change risk management process which is primarily carried our by the Carbon Readiness Taskforce (CRT) in conjunction with Group Environment & Resilience and the Internal Audit and Assurance departments. Any material risks that emerge as part of this process are integrated into the Group's risk register. The focus of our climate change risk management is on, but not limited to:
1) Regulatory risks
- carbon price
- emissions reporting legislation
- fuel/energy taxes and regulations
2) Physical risks
- induced changes in natural resources
- tropical cyclones and floods
- changes in weather patterns
3) Reputational and consumer behaviour related risks
ii. Assessment of risks and opportunities at a company level
The Qantas Group is committed to ensuring carbon is embedded into enterprise-wide risk management practices. This is demonstrated through the development of the CRT represented by key management personnel in each of the major Qantas business units. The assessment of risks and opportunities at a company level is subject to ongoing assessment (monthly) and review by the CRT. This is done in conjunction with the Internal Risk and Assurance department to ensure the controls in place are appropriate to minimise financial, operational and reputational exposure to the Group.
These groups are guided primarily by:
1) The Qantas Enterprise Risk Management (ERM) Framework
All risks, including climate change risks, are identified through the Qantas ERM framework. This process is governed by the Board. Under this framework, climate change forms one of the long-term material risk categories for the Group.
2) The Qantas Risk Management Policy
The Qantas Group Risk Management 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.
iii. Assessment of risks and opportunities at an asset level
Risks and opportunities relating to climate change are formally identified and reviewed by individual business units as well as by Group Environment and Resilience which has Group-wide oversight.
iv. Frequency of monitoring
In partnership with Internal Risk and Assurance, the CRT monitors climate change risks and opportunities on a monthly basis. 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.
v. Criteria for materiality

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.
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.
vi Communication of results
The Group governance structure facilitates the monitoring, oversight and escalation of risks to Executive Management and the Board. Business units actively communicate material business risks in accordance with the governance structure. All material risks are reported to the Board quarterly.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes (see guidance)

i. Process by which the strategy is influenced by climate change

The Qantas Group is committed to global efforts to reduce emissions. The 2010 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. Measures to mitigate climate change are a core focus of the Group strategy and a detailed climate change strategy has been developed and agreed in order to initiate change internally and externally.

ii. Climate change aspects that have influenced the strategy

The Group’s comprehensive ‘three pillar strategy’ recognises that the business is global in nature and articulates key strategic levers that underpin our environmental performance and commitment to reducing our carbon footprint . The strategic outcomes are outlined below:

1) Environmentally sustainable and efficient operations. Qantas actively encourages the introduction and adoption of new energy sources including sustainable aviation fuel and striving for optimised fuel efficiency. In early 2010, the Group reached a key milestone of avoiding one million tonnes of CO2-e through fuel conservation activities since the program’s launch in 2004/2005. We are also renewing our fleet with technologically advanced fuel-efficient aircraft such as the Airbus A380, Boeing 737-800 and Boeing 787. We are developing sustainable aviation fuel feasibility studies with 2 leading companies in the field.

2) Competitiveness enhanced by the changing regulatory environment. Qantas is committed to working with policy makers on the issue of climate change action including 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. In 2010, Qantas' chief executive Alan Joyce, as a member of the the Australian governments Business Roundtable on Climate Change which was established to engage the business community on the Government's climate change policies. In addition, our Head of Group Environment was also the chair of the Environment Committee at IATA throughout 2010.

Internally, 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.

3) Environmentally engaged customers, people and communities. Qantas believes that to have an integrated climate change action strategy, our key stakeholders need to be engaged and involved. Internally we have a comprehensive engagement program, 'begreen', which encourages employees to champion sustainable work practices. Our eXcel awards program recognises sustainability leadership at work, while employees contribute to a number of community environmental initiatives. Qantas also participates in the Great Barrier Reef Foundation (GBRF) ZooX Ambassadors program. As part of this program, employees are invited to take part in an educational program and field trip to the Reef, and use the knowledge they gain to implement environmental improvement initiatives in their workplace.

Externally, the Group actively engages with our stakeholders to seek feedback, stimulate discussion and influence decision making, particularly around carbon regulation and voluntary carbon. The use of company websites, publications, executive presentations, customer surveys, media releases and engagement programs are used for this purpose.

iii. Short term strategy changes

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.

iv. Long term strategy changes

As a member of 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. IATA have also set an aspirational 50 per cent reduction in net emissions by 2050.

v. Strategic advantage

The Qantas Group is one of the largest fuel users in Australia, consuming 4.6 billion litres of jet kerosene in 2009/2010 (a cost of $3.3 billion). Improving our fuel efficiency is a major part of our environmental improvement strategy. As fuel use accounts for 95% of our business' climate change impact, we see fuel efficiency as one of our company's greatest opportunities to minimise our footprint and create competitive advantage. Sustainable alternatives to traditional jet fuel will be essential to the Group's long-term sustainability. Qantas is committed to taking a leading role in the development of sustainable alternatives to traditional fossil fuels in our region and sees opportunity to be at the forefront of the industry.

vi. Substantial business decisions

Climate change has increasingly become a deciding factor in substantial business decisions as regulatory, physical and reputational aspects become more of a risk to our business. Examples of substantial decisions include:
- Investment in Sustainable Aviation Fuels (SAF)
- Emissions reductions targets to lower emissions by 50% by 2020
- Public policy engagement such as participation in the Australian government's Business Roundtable on Climate Change.

2.2b

Please explain why not

2.3

Do you engage with policy makers to encourage further action on mitigation and/or adaptation?

Yes

2.3a

Please explain (i) the engagement process and (ii) actions you are advocating

Engagement with policy makers is an important part of our business decision making process and is embedded in our strategy as one of our three key strategic outcomes. Through our strategy we are committed to ensuring '*competitiveness enhanced by the changing regulatory environment*'.

i. Nature & method of engagement

Engagement has included, but was not limited to participation in consultation programs, attendance at government facilitated workshops and direct engagement with policy makers.

ii. Topic of engagement

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 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.

iii. Actions advocated

In 2010, Qantas' chief executive Alan Joyce was a member of the Australian governments Business Roundtable on Climate Change which was established to engage the business community on the Government's climate change policies.

Qantas supports the Australian Government's decision to introduce a carbon pricing framework from 2012. We believe this is important to provide certainty for Australian businesses.

As an Australian carrier we appreciate the Government's commitment to consultation with business and to developing a policy framework that will provide certainty for strategic planning. We are committed to meeting our obligations within this framework but believe there is much more work to be done on the details of the scheme and how affected business will be supported to sustain competitiveness.

We have pointed out in the past that aviation is a global business and the introduction of different carbon pricing policies in different jurisdictions could lead to market distortions.

A global model for regulating aviation emissions, as advocated by the International Air Transport Association (IATA), would be the best possible approach. In the absence of such a multilateral framework, we accept that individual governments will introduce their own policies.

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. We have pointed out in the past that aviation is a global business and the introduction of different carbon pricing policies in different jurisdictions could lead to market distortions.

Page: 3. Targets and Initiatives

3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Intensity target

3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment

3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
IT-01	Scope 1	99%	1.5%	Other: Litres of Fuel/RTK	2009	12027918	2020	Target is to improve fuel efficiency per revenue tonnes kilometres by 16.5% by 2020.
IT-02	Scope 2	100%	10%	Other: MWh	2007	239563	2011	Target is to reduce electricity consumption by 10% by 2011.
IT-03	Scope 3: Waste generated in operations	100%	25%	Other: Tonnes	2007	31067	2011	Target is to reduce waste to landfill 25% by 2011.

3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments
IT-01					Whilst we are targeting an improvement in our fuel efficiency the change in absolute emissions will also be impacted by - Growth of available seat kilometres - Growth of demand for air travel - Extent of commercialisation of Sustainable Aviation Fuels - Government Climate Change Policy decisions
IT-02					Our absolute Scop1 & 2 emissions will be impacted by the details mentioned above. However our Scope 2 emissions (only) are expected to reduce by 10% at target completion.
IT-03			Decrease	25%	

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
IT-01	9%	8%	
IT-02	80%	86%	

3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

No

3.2a

Please provide details (see guidance)

3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

3.3a

Please provide details in the table below

Activity type	Description of activity	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Other	APU Reduction: Reduction in usage of Auxiliary Power Units (APUs) through aircraft connecting aircraft to Ground Power Units (GPUs) that use more efficient and less expensive alternative energy sources to aircraft fuel Other information: - Scope 1 initiative - Voluntary/mandatory: Voluntary - Development stage: In progress - Expected lifetime: On-going	1352000		<1 year
Other	Aircraft Weight Reduction: Optimising food, drink & catering equipment; carrying lighter equipment onboard; replacing freight containers with lightweight options & improving weight estimates. Other information: - Scope 1 initiative - Voluntary/mandatory: Voluntary - Development stage: In progress - Expected lifetime: On-going	5000000	6900000	1-3 years
Other	Flight Planning Optimisation: Improving flight planning accuracy to reduce inefficient flight paths Other information: - Scope 1 initiative - Voluntary/mandatory: Voluntary - Development stage: In progress - Expected lifetime: On-going	4460000		<1 year

3.3b

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	In Australia, Qantas is obligated to report under the National Greenhouse Energy Reporting Act and the Energy Efficiencies Opportunities Act. This is considered as an opportunity to provide transparency to our stakeholders and help identify areas in the business where energy efficiencies can be indentified to not only protect the environment but also benefit from long term financial savings. In the EU, Qantas submitted the Annual Emissions and Tonne-kilometre Report to the UK which will underpin the European Union Emissions Trading Scheme when it commences in January 2012.
Employee engagement	At Qantas we believe that an important way to reduce emissions is by engaging and involving employees in driving emissions reductions through information sessions, emissions reduction programs and creating incentives to reduce emissions.
Internal finance mechanisms	Although regulatory uncertainty continues, Qantas will continue to embed the cost carbon into reporting systems and long business planning. Qantas has calculated its current and forward emissions profile and has plans in place to mitigate and/or manage impacts.
Partnering with governments on technology development	Qantas works actively with governments to implement effective economic instruments that incentivise research and development in new technologies that will help reduce the environmental impact of aviation. Over the next year, we look forward to working with governments (as well as other important stakeholders) to build the case for sustainable jet fuel production in Australia. We believe this is important not just for Qantas but for the Australian economy as a whole, given the global emergence of green technologies and their potential to drive growth and create jobs.

3.3c

If you do not have any emissions reduction initiatives, please explain why not

Page: 4. Communication

4.1

Have you published information about your company's response to climate change and GHG emissions performance for this reporting year in other places than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section Reference	Identify the attachment

Publication	Page/Section Reference	Identify the attachment
In annual reports (complete)	Pp.113	Annual Report 2010
In annual reports (complete)	Pp.60	Annual Review 2010

Attachments

https://www.cdproject.net/Sites/2011/41/15341/Investor CDP 2011/Shared Documents/Attachments/InvestorCDP2011/4.Communication/Annual Review 2010.pdf
https://www.cdproject.net/Sites/2011/41/15341/Investor CDP 2011/Shared Documents/Attachments/InvestorCDP2011/4.Communication/Annual Report 2010.pdf

Module: Risks and Opportunities [Investor]

Page: 5. Climate Change Risks

5.1

Have you identified any climate change risks (current or future) that have potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
RR-	Other	Carbon price: By mid-2012, Qantas will be facing a carbon	Reduced demand	Current	Direct	Very likely	High

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
01	regulatory drivers	price in three jurisdictions: New Zealand, the European Union and Australia.	for goods/services				
RR-02	Emission reporting obligations	In Australia, Qantas is required to report under the annual National Greenhouse and Energy Report (NGER) and the Energy Efficiencies Opportunities which covers domestic emissions. In the EU, Qantas submitted the Annual Emissions and Tonne-kilometre Report to the UK which will underpin the European Union Emissions Trading Scheme when it commences in January 2012.	Increased operational cost	Current	Direct	Virtually certain	Low
RR-03	Fuel/energy taxes and regulations	Environmental taxes: Requirements 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.	Reduced demand for goods/services	Current	Direct	Very likely	Low

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

i) The potential financial implications

Qantas is one of the single largest fuel users in Australia. The introduction of a carbon price will therefore have significant cost implications for the Group. Our chief executive, Alan Joyce, has indicated that a carbon price on domestic aviation of between $20 and $30 a tonne would result in a liability of roughly $100 million to $150 million per year. The channels through which Qantas is affected by a carbon price is via two avenues:

1) Emissions trading schemes

Regional emissions trading schemes (ETS) directly impacting aviation have been enacted in New Zealand and the European Union (to commence in Jan 2012). 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 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. 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.
Under the EU ETS, the aviation industry will be allocated up to 85% free allowances based on the annual emissions and revenue-ton kilometres reports submitted in 2010. 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 covers 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).
2) Carbon Tax
In Australia, the Labour government is proposing to introduce a carbon tax with the aim of encouraging users to improve energy efficiency and reduce greenhouse gases emissions. Qantas believes a carbon price is an important step in transitioning Australia away from coal-fired energy and non-sustainable fuels.
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).
More prescriptive and often duplicated emissions 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’. ADP will roughly cost between 75-85 pounds sterling for economy passengers and 150-170 pounds sterling for premium passengers.

ii) Methods used to manage the risks
The Qantas Group is committed to global efforts to reduce emissions. Qantas established a Group-wide ‘Carbon Readiness Taskforce’ 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 an active fuel conservation program that has saved over one million tonnes of carbon emissions 2005. We are renewing our fleet with technologically advanced fuel-efficient aircraft such as the Airbus A380, Boeing 737-800 and Boeing 787. We are developing sustainable aviation fuel feasibility studies with 2 leading companies in the field. We have been proactively engaging with the Australian government to discuss options for the structure of a carbon pricing mechanism in Australia.
The Group is investigating Sustainable Aviation Fuels (SAFs) which 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’.
Qantas actively engages with policy makers in order to contribute and be part of discussions around the future of carbon pricing, policy and technology to help mitigate the effects of climate change.
Although regulatory uncertainty continues, Qantas will continue to embed the cost carbon into reporting systems and long business planning, Qantas has calculated its current and forward emissions profile and has plans in place to mitigate and/or manage impacts.

iii) The costs involved
Compliance with the various policy decisions adds an increased administrative burden on the company. Additional resources are required to mange reporting obligations as well as the business as usual activities of the various schemes.

The most significant cost the Group has is the US$23 billion investment in highly fuel-efficient next-generation aircraft, such as Airbus A380 and Boeing 787.

5.1c

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
PR-01	Induced changes in natural resources	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.	Reduced demand for goods/services	Unknown	Direct	Unknown	Medium
PR-02	Change in precipitation pattern	The floods in Queensland caused severe disruption to services in 2010.	Inability to do business	Unknown	Direct	Unknown	Medium
PR-03	Tropical cyclones	Cyclones Yasi and Carlos in Queensland caused severe disruption to services in 2010.	Inability to do business	Unknown	Direct	Unknown	Medium
PR-04	Other physical climate drivers	Changes in weather patterns such as jet stream activity and prevailing wind patterns impact aircraft performance and route planning.	Inability to do business	Unknown	Direct	Unknown	Medium

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

i. Potential financial implications
The deterioration of Australia's natural tourism as a result of induced changes in natural resources may impact the Group's commercial success as well as the broader tourism industry. In 2010, the Qantas Group carried 1.8 million inbound visitors to Australian and the national export revenue generated by Qantas inbound tourism is approximated at AUD $5.8 billion. 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.
Extreme weather events such as tropical cyclones and floods cause severe disruptions to Qantas' business and resulted in serious financial implications for the business. Qantas estimated that the impact of the floods and cyclones Yasi and Carlos in Queensland amounted to $60 million and $20 million respectively.

Changes in weather patterns such as temperature, wind speed, 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 is impacted, the ability to carry full loads of passengers or freight may be adversely reduced.
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

ii. Methods used to manage risks

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 broad-based fuel and environmental improvement program. As previously stated the group has dedicated Environment and Fuel Optimisation teams driving an environment improvement program aimed at reducing the Group's impact on the environment.
Through the Qantas Foundation the Group invests in projects and organisations that help contribute to improved land management and the protection of Australian locations from the impact of climate change.
The Group also supported an additional piece of climate change research in the Southern Ocean.
The project, 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.

The Group has also partnered with Tourism Australia to continue to effectively market Australia as an attractive tourist destination. 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.
The Group has also established the annual Qantas Award for Excellence in Sustainable Tourism.
The award is a demonstration of our commitment to sustainable growth and support of tourism businesses that protect, enhance and promote our distinctive destinations and environment.
The annual 'Qantas Award for Excellence in Sustainable Tourism' will:
- Recognise and reward tourism businesses that implement the principles of sustainable tourism; those who set out to minimise their impact on the local environment, conserve natural resources, respect local culture and benefit local communities.
- Inspire other tourism businesses to adopt new sustainable ways of doing business.
- Acknowledge tourism businesses that provide a unique travel experience and inspire visitors to promote Australia as one of world's leading sustainable tourism destinations.

iii. Associated costs of actions

Qantas has donated AUD$2 million dollars to the Qantas Foundation Environmental Sustainable Fund to support environmental conservation programs with a focus on protecting Australia's natural assets.
The three year partnership with Tourism Australia is worth AUD$44 million.
The Qantas Award for Excellence in Sustainable Tourism provides each State based winner a prize of $2,000. The national winner of the award then receives a major prize of $25,000. This prize will need to be invested in an initiative or project in line with the philosophy of the award.
In addition, the national winner will receive coverage through Qantas' extensive communication channels, including 'Qantas - The Australian Way' inflight magazine and other inflight entertainment channels. This will provide significant exposure for these businesses to thousands of national and international consumers.

5.1e

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
OR-01	Reputation	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.	Reduced demand for goods/services	Unknown	Direct	Unknown	Medium
OR-02	Changing consumer behaviour	There is a potential risk that customer may demand products that reduce their carbon footprint. Technology such as video conferencing may provide alternatives for face- to-face meetings therefore reducing demand for air travel.	Reduced demand for goods/services	Unknown	Direct	Unknown	Medium

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

i. Potential financial implications

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.

ii. Methods used to manage this risk

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 qantas.com and jetstar.com.

The Group also offsets its employees travel for business purpose and emissions from ground vehicle use.

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.

iii. Costs associated with these actions

The above-mentioned reporting and communication commitments add an increased administrative burden on the company. Additional resources are required to mange reporting obligations as well as the business as usual activities of the various schemes.

The cost of the Group's commitment to offset the emissions from employee business travel and ground transport emissions was approximately $550,000.

5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Page: 6. Climate Change Opportunities

6.1

Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
RO-01	Cap and trade schemes	Zero rating of biofuels: Current guidance provided within Emission trading schemes in Australia and the European Union indicate that the use of biofuel will not incur carbon costs.	Reduced operational costs	1-5 years	Direct	Likely	Medium
RO-02	Other regulatory drivers	Improvement in energy efficiency: Focus on reporting and disclosing environmental performance may result in further improvements in environmental performance.	Reduced operational costs	1-5 years	Direct	Likely	Medium
RO-03	Other regulatory drivers	The design of effective carbon regulatory frameworks will avoid creating competitive distortions and provide incentives for organisations to invest in research and development.	Other: Avoids creating competitive distortions	1-5 years	Direct	Likely	Medium

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

<u>i. Potential financial implications</u>
The changing regulatory environment has the potential to positively impact the Group's carbon efficiency and therefore its overall environmental footprint. Regulatory opportunities have the potential to reduce operating costs or avoid additional costs on the Qantas Group.
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' have no (or minimal) carbon charge under proposed regulations, ie.

they are ‘zero-rated’. Sustainable aviation fuel may reduce operating costs through reducing carbon costs and providing competition in the fuel market potentially leading to lower costs.
The opportunity to have aircraft using SAFs 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 SAF 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. According to the CSIRO Sustainable Aviation Fuel Roadmap (May 2011), if the aviation sector in Australia and New Zealand can achieve a 5 per cent cent bio-derived jet fuel share in their fuel use by 2020, expanding that amount to 40 per cent of their total fuel use by 2050, the development will enable:
- The stabilisation of aviation industry emissions from 2020 and assists in reducing emissions from 2030;
- Savings of over $2 billion per annum on jet fuel imports and achieve a 17 per cent reduction in aviation GHG emissions per annum relative to an all petroleum-based jet fuel future;
- The creation of potentially 12,000 new jobs by 2030; and
- The continued growth and ongoing contribution to the economy of the $39 billion Australasian tourism industry.
Governments will need to adopt more effective economic instruments that provide incentives to finance research and development in new technology and efficiently designed global climate policies that do not create competitive distortions.
Each of these areas has 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.
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.
ii. Methods used to manage opportunities
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, distribution, 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.
• Qantas 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.
After a global review of technologies, we have chosen to collaborate with two of the most innovative companies in the field, Solazyme and Solena.
Over the next year, we will be assessing the feasibility of each of these technologies against stringent commercial and sustainability criteria. Working with Solazyme and Solena Group, as well as with other important government and industry stakeholders, we aim to build the case for sustainable jet fuel production in Australia.
There is a global emergence of green technologies and a potential to drive growth and create jobs. That is why we believe this is important not just for Qantas, but for the Australian economy as a whole.
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 we are 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.

iii. Costs associated with these actions

To date the majority of costs involved in these activities has been related to manpower resources required to participate in industry working groups and development of feasibility studies.

6.1c

Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

6.1e

Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
	Other drivers	Improvement in Air Traffic Management	Reduced capital costs	1-5 years	Direct	Likely	Medium

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

i. Potential financial implications

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.

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.

ii. Methods used to manage opportunity

The Qantas Group's 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.

The 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 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 environmental performance.

Qantas also takes a leadership role at the Air Traffic Management Performance Group (ATMPG) with Government stakeholders to influence and prioritise airspace activities that deliver benefit to industry including community relations aspects.

iii. Costs associated with actions

The costs associated with benefiting from the advancement in new technology aircraft is related to the Qantas Group US$23 billion (at list prices) investment in next-generation aircraft, such as Airbus A380 and Boeing 787.

Additional costs are also associated with:
- crew training
- procedure design for new procedures and retrofitting of aircraft and
- with new technology navigation systems.

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

Potential physical changes resulting from climate change are unlikely to present any potential to generate substantive change 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.

Qantas constantly reviews the demand for services to existing and new destinations as part of its commercial planning. Any physical affects of climate change, impacting demand for air transportation will be identified as part of this process. Any opportunities driven by physical climate change parameters that have the potential to develop new markets or customers will be investigated in due course.

6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]

Page: 7. Emissions Methodology

7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Fri 01 Jul 2005 - Tue 20 Jun 2006	11892779	239563

7.2

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

Please select the published methodologies that you use
Australia - National Greenhouse and Energy Reporting Act

7.2a

If you have selected "Other", please provide details below

7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	Other: National Greenhouse Accounts (NGA) Factors – June 2009 – Appendix 1
CH4	Other: National Greenhouse Accounts (NGA) Factors – June 2009 – Appendix 1
N20	Other: National Greenhouse Accounts (NGA) Factors – June 2009 – Appendix 1

7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
Jet kerosene	2.56	Other: CO2-e/kL	National Greenhouse Accounts (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		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, NSW, QLD	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 – SA	0.77	Other: CO2-e/kwh	National Greenhouse Accounts (NGA) Factors – June 2009 – Table 5

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Purchased Electricity – TAS	0.23	Other: CO2-e/kwh	National Greenhouse 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

Page: 8. Emissions Data - (1 Jul 2009 - 30 Jun 2010)

8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

8.2a

Please provide your gross global Scope 1 emissions figure in metric tonnes CO2e

11749346

8.2b

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.2c

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 1 emissions (metric tonnes CO2e) - Total Part 1	Comment

8.2d

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 2

Gross global Scope 1 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment

8.3a

Please provide your gross global Scope 2 emissions figure in metric tonnes CO2e

224024

8.3b

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e)	Comment

8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO2e) - Total Part 1	Comment

8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 2

Gross global Scope 2 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment

8.4

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

8.4a

Please complete the table

Reporting Entity	Source	Scope	Explain why the source is excluded

8.4

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

Yes

8.4a

Please complete the 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 - International operations	Scope 1	The majority of the Group's ground handling functionality in overseas ports is outsourced. Information regarding emissions from these sources is difficult to obtain and considered non-material.

8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and Scope 2 figures that you have supplied and specify the sources of uncertainty in your data gathering, handling, and calculations

Scope	Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Other: Accrual methods	CO2-e emissions from aviation are directly related to aircraft fuel consumption. Accrual data is only used where invoices have not been received from suppliers. In these cases accrual is estimated using known aircraft fuel burn rates.
Scope 2	More than 2% but less than or equal to 5%	Other: Accrual methods	Estimation of data is required when the timeliness of data is required. It is common for utility invoices to be supplied for a three month period. The accrual period is regularly reviewed for accuracy against actual data once available.

8.6

Please indicate the verification/assurance status that applies to your Scope 1 emissions

Verification or assurance complete

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.6b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Relevant statement attached
Limited assurance	ISAE 3000	Annual Report 2010 pp.116

8.7

Please indicate the verification/assurance status that applies to your Scope 2 emissions

Verification or assurance complete

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Relevant statement attached
Limited assurance	ISAE 3000	Annual Report 2010 pp.116

8.8

Are carbon dioxide emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emissions from burning biomass/biofuels) relevant to your company?

No

8.8a

Please provide the emissions in metric tonnes CO2e

Attachments

https://www.cdproject.net/Sites/2011/41/15341/Investor CDP 2011/Shared Documents/Attachments/InvestorCDP2011/8.EmissionsData(1Jul2009-30Jun2010)/Annual Report 2010.pdf

Page: 9. Scope 1 Emissions Breakdown - (1 Jul 2009 - 30 Jun 2010)

9.1

Do you have Scope 1 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

Yes

9.1a

Please complete the table below

Country	Scope 1 metric tonnes CO2e
Australia	3956061
Other: Outside Australia	7793285

9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

9.2a

Please break down your total gross global Scope 1 emissions by business division

Business Division	Scope 1 metric tonnes CO2e

9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 metric tonnes CO2e

9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 metric tonnes CO2e

9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 metric tonnes CO2e

Page: 10. Scope 2 Emissions Breakdown - (1 Jul 2009 - 30 Jun 2010)

10.1

Do you have Scope 2 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

Yes

10.1a

Please complete the table below

Country	Scope 2 metric tonnes CO2e
Other: ACT	2672
Other: NSW	105256
Other: QLD	37474
Other: SA	3322
Other: TAS	329
Other: VIC	64053
Other: WA	10451
Other: NT	467

10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 metric tonnes CO2e

10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 metric tonnes CO2e

10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 metric tonnes CO2e

Page: 11. Emissions Scope 2 Contractual

11.1

Do you consider that the grid average factors used to report Scope 2 emissions in Question 8.3 reflect the contractual arrangements you have with electricity suppliers?

Yes

11.1a

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 CO2e

11.1b

Explain the basis of the alternative figure (see guidance)

11.2

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

11.2a

Please provide details including the number and type of certificates

Type of certificate	Number of certificates	Comments

Page: 12. Energy

12.1

What percentage of your total operational spend in the reporting year was on energy?

More than 20% but less than or equal to 25%

12.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has consumed during the reporting year

Energy type	MWh
Fuel	46841943
Electricity	235303
Heat	79702

Energy type	MWh
Steam	0
Cooling	0

12.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Other: Ground Fuel	120811
Jet kerosene	46758605

Page: 13. Emissions Performance

13.1

How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

13.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Other: Reduction in business activity, increased fuel efficiency and lower electricity usage	1.35	Decrease	This decrease was primarily due to a reduction in business activity. However we also continued to improve and invest in fuel efficiency and emissions reductions activities to decrease emissions.

13.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Explanation
0.00087	metric tonnes CO2e	unit total revenue	3.94	Increase	Average passenger yields fell 7 per cent in 2010. Group revenue decreased by 4 per cent.

13.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Explanation
367.257	metric tonnes CO2e	FTE Employee	0.85	Increase	The number of FTE employees decreased in 2010 by 2%.

13.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Explanation
4.783	metric tonnes CO2e	Other: Available Seat Kilometers (ASKs)	0.89	Decrease	This is due to an increase in ASK and a reduction in GHG emissions.

Page: 14. Emissions Trading

14.1

Do you participate in any emission trading schemes?

No, but we anticipate doing so in the next two years

14.1a

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 in metric tonnes CO2e	Details of ownership

14.1b

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

Our strategy 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.

14.2

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

Yes

14.2a

Please complete the following table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose e.g. compliance
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-2048940 to GFEE2009-2078321	Other: Australian Government Greenhouse Friendly	29382	29382	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-2503841 to GFEE2009-2605360	Other: Australian Government Greenhouse Friendly	101520	101520	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-2430798 to GFEE2009-2503840	Other: Australian Government Greenhouse Friendly	73043	73043	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-1643588 to GFEE2009-1670314	Other: Australian Government Greenhouse Friendly	26727	26727	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2008-599042 to GFEE2008-600171	Other: Australian Government Greenhouse Friendly	1130	1130	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-1670315 to GFEE2009-1708945	Other: Australian Government Greenhouse Friendly	38631	38631	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2008-476182 to GFEE2008-491853	Other: Australian Government Greenhouse Friendly	15672	15672	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2008-596714 to GFEE2008-599041	Other: Australian Government Greenhouse Friendly	2328	2328	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-2201337 to GFEE2009-2201735	Other: Australian Government Greenhouse Friendly	399	399	Yes	Voluntary Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2009-2428694 to GFEE2009-2430797	Other: Australian Government Greenhouse Friendly	2104	2104	Yes	Voluntary Offsetting
Credit	Other: Australian Government	Serial numbers:	Other: Australian	4000	4000	Yes	Voluntary

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose e.g. compliance
Purchase	Greenhouse Friendly VER units (Energy Efficiency)	GFEE2009-2424694 to GFEE2009-2428693	Government Greenhouse Friendly				Offsetting
Credit Purchase	Other: Australian Government Greenhouse Friendly VER units (Energy Efficiency)	Serial numbers: GFEE2008-139622 to GFEE2008-151127		11506	11506	Yes	Voluntary Offsetting

Page: 15. Scope 3 Emissions

15.1

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

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
Other: Waste Disposal	31067	Waste disposal figures are provided by the Group's waste contractors. Emissions factors from the National Greenhouse Accounts (NGA).	
Business travel		Factors (June 2009) – Table 5 is used to determine CO2e. Emissions relating to Taxi and Accommodation on company travel are estimated internally. Taxi emissions are determined by using the total spend of the taxis by Group employees, a $/km figure and the emission figure 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 2 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 shown that this is insignificant.

15.2

Please indicate the verification/assurance status that applies to your Scope 3 emissions

Verification or assurance complete

15.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

More than 90% but less than or equal to 100%

15.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Relevant statement attached
Limited assurance	ISAE 3000	Annual Report 2010 pp.116

15.3

How do your absolute Scope 3 emissions for the reporting year compare to the previous year?

Decreased

15.3a

Please complete the table

Reason	Emissions value (percentage)	Direction of Change	Comment
Emissions reduction	5.6	Decrease	The Group has a coordinated program of reducing the amount of waste to

Reason	Emissions value (percentage)	Direction of Change	Comment
activities			landfill through reduced waste and improved recycling.

Attachments

https://www.cdproject.net/Sites/2011/41/15341/Investor CDP 2011/Shared Documents/Attachments/InvestorCDP2011/15.Scope3Emissions/Annual Report 2010.pdf

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

John Valastro, Head of Environment & Resilience