

**MAGL** 

# ASX and Media release

### 2011 Sustainability Performance Report

#### 16 November 2011

AGL Energy Limited (AGL) has today released its Sustainability Performance Report 2011 (attached). The report provides details of AGL's sustainability performance during the year ending 30 June 2011, and is available online at <a href="http://2011.aglsustainability.com.au">http://2011.aglsustainability.com.au</a>.

AGL measures and reports on sustainability performance to give stakeholders an understanding of the social, environmental and economic challenges facing AGL and the energy industry, and the steps that AGL is taking to protect and grow the long-term value of the business.

AGL has published an annual sustainability report since 2004 to communicate sustainability performance in the areas of customers, community, people, economic, climate change and environment.

AGL has been recognised as one of the world's leading electric utilities in sustainability performance by being named on the global Dow Jones Sustainability World Index (DJSI World) 2011/12. AGL was the only Australian company to be named among the 13 companies worldwide which make up the electric utilities section of the DJSI World. AGL was also named on the Dow Jones Sustainability Asia Pacific Index (DJSI Asia Pacific) 2011/12.

In August 2011, AGL's 2010 Sustainability Report was awarded Best Sustainability Report, Best Sustainability Report in the ASX 50 and Best Sustainability Report in the Energy Sector at the ACCA Australia 2011 Sustainability Reporting Awards.

Last week, AGL was included on the Carbon Disclosure Project's Carbon Disclosure Leadership Index (CDLI) for the ASX 200/ NZX 50. AGL was also named as one of only six Australian listed companies on the CDP Carbon Performance Leadership Index.

AGL's corporate blog (<u>www.aglblog.com.au</u>) provides an opportunity for interested stakeholders to contribute to the sustainability discussion.

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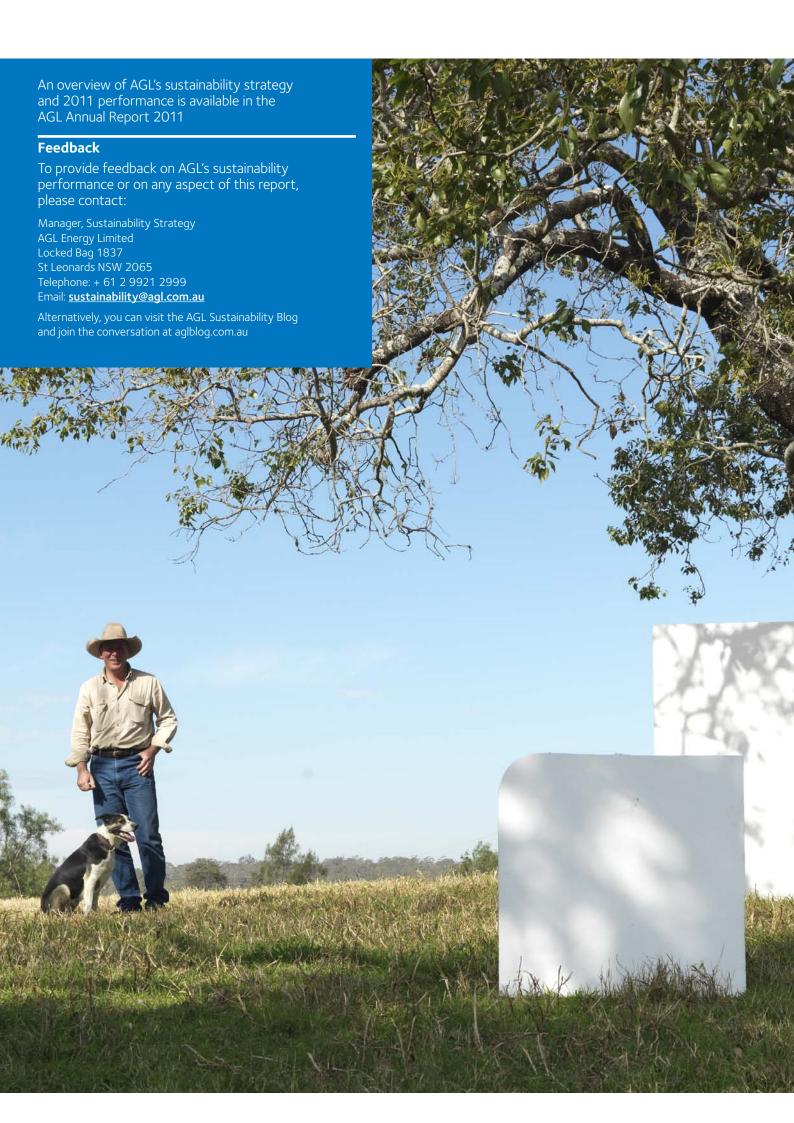
#### **About AGL**

AGL is Australia's largest integrated renewable energy company and is taking action toward creating a sustainable energy future for our investors, communities and customers. Drawing on over 170 years of experience, AGL operates retail and merchant energy businesses, power generation assets and an upstream gas portfolio. AGL has Australia's largest retail energy and dual fuel customer base. AGL has a diverse power generation portfolio including base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources including hydro, wind, landfill gas and biomass. AGL is Australia's largest private owner and operator of renewable energy assets and is looking to further expand this position by exploring a suite of low emission and renewable energy generation development opportunities.



# Sustainability Performance Report 2011





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# **About AGL**

# AGL is Australia's leading renewable energy company and largest private owner, operator and developer of renewable generation assets.

#### AGL's integrated business strategy

AGL's integrated strategy provides access to multiple profit pools and balances risk between upstream supply of energy and customers' demand for energy.

#### Upstream supply – renewable and thermal generation

Merchant Energy manages AGL's power generation assets and wholesale energy sourcing portfolio. Merchant Energy also manages energy sales to AGL's major customers and to other retailers, and provides energy efficiency services.

AGL has a diverse power generation portfolio, including baseload, intermediate and peaking generation plants spread across traditional thermal (coal and gas) as well as renewable sources (including hydro, wind, landfill gas and biomass). Renewable energy generation assets comprise around 45% of AGL's operated generation portfolio (by installed capacity), or 33% of owned, operated or controlled assets. More information on AGL's renewable assets is available in the Climate change chapter of this report.

**Strategic direction:** AGL has a medium-term target of owning and/or operating peak/intermediate generation to cover 80-120% of flexible demand.

### Upstream supply - gas production

Upstream Gas is responsible for managing the growth of AGL's upstream gas portfolio to secure long-term, sustainable and market competitive gas supplies for customers and for power generation requirements.

AGL owns and/or operates coal seam gas exploration and production projects in five petroleum basins across New South Wales, Queensland and South Australia. The investments that make up AGL's upstream gas portfolio include:

- > Camden Gas Project: 100% interest, operated by AGL
- > Hunter Gas Project: 100% interest, operated by AGL
- > Gloucester Gas Project: 100% interest, operated by AGL
- > Spring Gully Gas Project: 0.0375–0.75% joint-venture interests, operated by Origin Energy
- > Moranbah Gas Project: 50% joint-venture interest, operated by Arrow Energy
- > Galilee Gas Project: 50% joint-venture interest (farming in), operated by AGL
- > CSM Energy: 35% equity stake in a private company aiming to extract gas from mining operations and deliver it to market
- > Taipan Joint Venture: 40% joint venture interest, operated by AGL
- > Silver Springs Project: 100% interest, operated by AGL
- > Various minority shareholdings in exploration licences in New Zealand (not operated by AGL).

Upstream Gas also manages the Silver Springs Underground Gas Storage Project, which is on target for first storage in FY2012, and is developing the Newcastle Gas Storage Facility, with a final investment decision due in FY2012.

Upstream Gas also manages AGL's 9.9% equity interest in Torrens Energy Limited. AGL and Torrens Energy have entered into a Geothermal Alliance Agreement to jointly commercialise baseload qeothermal projects close to the electricity transmission network.

**Strategic direction:** AGL is targeting ownership of around 2,000 PJ of 2P upstream gas reserves for domestic supply, with gas production covering 40-50% of consumption.

#### **Transmission and distribution**

Ownership of large-scale electricity or gas transmission and distribution systems that are used to transport energy from upstream supply facilities (gas production and electricity generation) to the end customer is not core to AGL's integrated strategy. AGL does not own gas or electricity distribution networks or electricity transmission networks, but does have some strategic investments in gas transmission infrastructure, as outlined in the Economic chapter of this report.

#### **Retail markets**

AGL retails natural gas, electricity and energy-related products and services (including solar) to 3.29 million customer accounts across New South Wales, Victoria, South Australia and Queensland. A breakdown of customer numbers by state and fuel type is provided on page 19 of this report.

In FY2011 the total amount of energy sold to AGL's mass market customers was 14,674 GWh of electricity and 62.6 PJ of gas. AGL also sold an additional 18,090 GWh of electricity and 89.1 PJ of gas to major commercial and industrial customers.

**Strategic direction:** AGL is focusing on managing and growing margins, and growing New South Wales electricity customer accounts by 400,000 to 500,000, creating a national base of 3.5 to 4.0 million.

### Corporate support

AGL's Retail Energy, Merchant Energy and Upstream Gas businesses are supported by a full complement of corporate services. Further information about AGL's integrated strategy is available in the Economic chapter of this report.

# **About AGL**

### Projects under development and construction

AGL has a range of projects in different stages of development to deliver strategic depth and flexibility to its electricity generation and gas production and storage portfolios. Projects under development in FY2011 are summarised in the table below.

During FY2011 AGL completed construction of the AGL Hallett 4 Wind Farm (132 MW).

#### **Investments and divestments**

In October 2010, AGL acquired all of the issued shares in Mosaic Oil NL by way of a scheme of arrangement.

	Project	Nominal capacity	Location	Туре	Status	Definition
	Oaklands Hill	67 MW	Vic.	Wind	Construction	Committed
	Hallett 5	52 MW	SA	Wind	Construction	Committed
	Macarthur	420 MW	Vic.	Wind	Construction	Committed
0	Barn Hill	150 MW	SA	Wind	In development	Probable
nellewable gellel acion	Hallett 3	99 MW	SA	Wind	In development	Probable
	Coopers Gap	350 MW	Qld	Wind	In development	Probable
	Others	1,200 MW	Various	Wind	-	Possible
	Qenos Cogeneration Facility	21 MW	Vic.	Gas	Construction preparation	Committed
	Dalton	500 MW	NSW	Gas	In development	Probable
	Tarrone	600 MW	Vic.	Gas	In development	Probable
3017176	Leafs Gully	360 MW	NSW	Gas	In development	Possible
מיש	SEQ 1	360 MW	Qld	Gas	Early planning	Possible
	SEQ 2	1,150 MW	Qld	Gas	Early planning	Possible
	TIPS Peaker	700 MW	SA	Gas	Early planning	Possible
Je	Silver Springs Newcastle Gas	35 PJ	Qld	Storage	Construction	Committed
		_			In development	Probable

#### Notes

**Probable projects:** Projects that are under development with an approved budget and pending final investment decision. **Possible projects:** Projects where AGL holds rights to the sites and/or where the final investment decision is expected to be in excess of 12 months.

# Location of significant assets



#### Hydro Electric Power Stations

#### **Dartmouth Power Station**

Location Victoria Capacity 180 MW

#### **McKay Creek Power Station**

Location Victoria Capacity 160 MW

#### **Bogong Power Station**

Location Victoria Capacity 140 MW

#### **Eildon Power Station**

Location Victoria Capacity 135 MW

#### **West Kiewa Power Station**

Location Victoria Capacity 61.6 MW



#### **Wind Farms**

#### **AGL Hallett 1 Wind Farm**

Location South Australia
Capacity 94.5 MW

#### AGL Hallett 2 Wind Farm

Location South Australia Capacity 71.4 MW

#### AGL Hallett 4 Wind Farm

Location South Australia Capacity 132.3 MW

#### Wattle Point Wind Farm

Location South Australia Capacity 90.8 MW



#### **Thermal Power Stations**

#### **Loy Yang Power Station**

Location Victoria
Fuel type Coal
Capacity 708.5 MW

(AGL's 32.5% equity share)

Not operated by AGL

#### **Torrens Island Power Station**

Location South Australia
Fuel type Gas
Capacity 1,280 MW

#### **Oakey Power Station**

Location Queensland Fuel type Gas Capacity 282 MW Not operated by AGL

#### **Somerton Power Station**

Location Victoria
Fuel type Gas
Capacity 150 MW

#### **Yabulu Power Station**

Location Queensland
Fuel type Gas
Capacity 121 MW
Not operated by AGL



### **Upstream Gas Projects**

# **Gloucester Gas Project**

Location New South Wales Reserves (2P) 669 PJ

#### Moranbah Gas Project (50% interest)

Location Queensland Reserves (2P) 370 PJ Not operated by AGL

### ATP 364P Exploration Project (50% interest)

Location Queensland Reserves (2P) 687 PJ Not operated by AGL

#### **Camden Gas Project**

Location New South Wales Reserves (2P) 154 PJ

#### **Hunter Gas Project**

Location New South Wales Reserves (2P) 142 PJ

### Silver Springs

Location Queensland Reserves (2P) 65 PJ







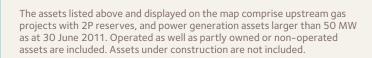








Not operated by AGL







# **About this report**

AGL publishes sustainability performance data annually so that stakeholders can gain an understanding of the social, environmental and economic challenges and opportunities that face the organisation and the industry, and the steps that AGL is taking to enhance the longterm value of the business.

#### Report scope

This report covers the performance of the AGL group of companies (AGL Energy Limited and its wholly owned Australian subsidiaries) (AGL) and the activities and facilities in Australia over which AGL had operational control for all, or part, of the financial year ended 30 June 2011 (FY2011). All data in this report relates to FY2011 unless otherwise stated.

Together, the 2011 Sustainability Performance Report and the 2011 Annual Report provide the full account of AGL's performance for the period.

Where information regarding AGL's partially owned and nonoperated investments is material, available and relevant, it is included and clearly referenced. This report excludes the performance of franchise AGL Energy Shops and AGL Assist. This report also excludes AGL's minority shareholdings in a number of exploration licences in New Zealand, which were acquired in October 2011, and are not operated by AGL.

The performance of joint ventures which are not operated by AGL is excluded.

AGL's previous Sustainability Report was released in November 2010, covering the 2010 financial year (FY2010). This and prior Sustainability Reports for AGL and The Australian Gas Light Company (AGLC) dating back to FY2004 are available on the AGL website at agl.com.au.

#### Report structure

AGL's annual sustainability reporting comprises two main elements:

- **1. AGL Annual Report 2011.** This year, AGL has incorporated sustainability performance information within the Annual Report to provide a broader account of AGL's overall performance to shareholders and other stakeholders. Pages 10 to 23 of the Annual Report document AGL's performance against the 12 strategic sustainability indicators that were established in 2010.
- **2. Sustainability Performance Report 2011 (this report)** This report provides detailed performance data across a wider range of subject areas, and has been prepared for stakeholders who have a special or detailed interest in particular aspects of AGL's sustainability performance.

This report is available online only.

An Assurance Statement is available on pages 85 to 90. A Global Reporting Initiative (GRI) Index is located on pages 91 to 103.

#### Global reporting initiative

The Global Reporting Initiative's (GRI) 'G3' Sustainability Reporting Guidelines and the GRI Electric Utility Sector Supplement were used in the preparation of this report. These documents provide guidance for organisations to use as the basis for disclosure about their sustainability performance, providing a universally applicable, generally acceptable and comparable framework that helps stakeholders understand reported information.

A full GRI content index is included on pages 91 to 103 of this report.

AGL has self-assessed the extent to which the GRI guidelines have been applied in the preparation of this report. AGL also engaged Net Balance Management Group Pty Ltd (Net Balance) to complete a third-party GRI 'Application Level' assessment of the report. Net Balance agreed with the self-assessment that the report meets the requirements of an 'A+' Application Level. This is reflected in the GRI application level table shown below.

It is AGL's intention to report at an 'A+' level in the future.

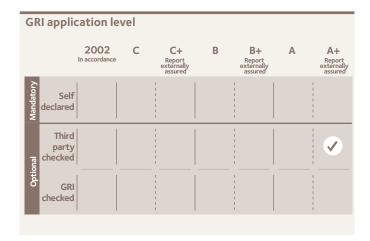
For further information about the GRI guidelines and application levels, refer to the GRI website at globalreporting.org

#### Assurance

Net Balance has provided independent assurance over this report using the AA1000 Assurance Standard (2008). A 'Type 2 Moderate Level' of assurance was undertaken which both assesses how well AGL meets the AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness, as well as testing the reliability of reported information. The Assurance Statement from Net Balance is included on page 85 of this report.

In addition, AGL has sourced further assurance about data accuracy and reliability through the following mechanisms:

- > Deloitte Touche Tomatsu has undertaken an assurance of AGL's methodology for determining greenhouse gas emissions (Operational Footprint).
- > Haystac Positive Outcomes (a Division of Mitchell Communications Group) has reviewed how AGL determines the value of community contributions using the methodology established by the London Benchmarking Group (Australia). A statement from Haystac Positive Outcomes is included on page 90 of this report.
- > Data in the Economic section of the report includes financial information from AGL's audited 2011 Financial Report. The full financial report is available on the AGL website at aql.com.au



# **About this report**

#### How to read this report

Performance data in this report has been structured into six chapters, representing the categorisation of AGL's sustainability risks: Economic, Customers, Community, People, Climate Change and Environment.

Within each chapter, two focus areas have been identified. Together, these 12 focus areas represent those issues considered to be the most material sustainability challenges for AGL.

A vision has been stated for each of the 12 focus areas. These visions are designed to help guide decision making. Short-term targets for FY2011 were published for each indicator in the 2010 Summary Sustainability Report. Performance against each of the FY2011 targets, and new targets for FY2012, are reported within this report and the FY2011 Annual Report.

The body of this report contains additional detail about each focus area, including AGL's management approach and further supporting data.

A set of subject areas that influence overall performance in each focus area has also been identified. Performance data for each of these subject areas is available in the body of the report. A roadmap showing the subject areas for each focus area is provided on the introductory page to each chapter of this report.

AGL recognises that there is not always a linear relationship between the identified subject areas and focus areas, and that each subject area may have an influence on performance in more than one focus area.

However, the selected structure is intended to provide a simple model for disclosing sustainability-related performance data. The representation of AGL's major sustainability risks and opportunities in this way will provide a map for the future that can be consistently communicated year after year, and which stakeholders can use to measure progress.

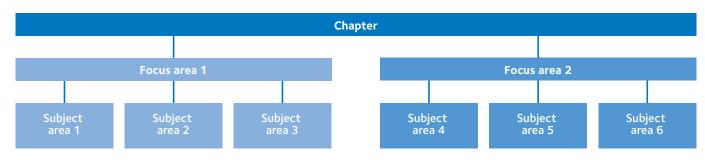
#### Consultation about this report

AGL engages with different stakeholder groups on a regular basis, as outlined in the Stakeholder engagement section of this report (pages 12 to 14).

Specific comment on the scope and content of aspects of this report was also sought from the AGL Climate Change Council and the AGL Customer Council.

- > Feedback received from the AGL Climate Change Council comprised a request for AGL to include further information on its interactions with industry associations. AGL has included a statement acknowledging that there are instances where AGL's position differs to that of the industry associations to which it belongs.
- > Feedback received from the AGL Customer Council comprised formatting suggestions and simplifying AGL jargon. The Council requested that AGL expand the 'Customer Charter commitments' table (page 27) to include all of AGL's obligations to its customers, however this is not practical given the scale and variance of obligations between jurisdictions. AGL is continuing to advocate more harmonisation of requirements between jurisdictions to remove regulatory burden and decrease complexity for customers and the community.

#### Reporting model



#### Chapter

Each chapter has an overarching goal, to guide long-term performance.

#### Focus area

Within each chapter two focus areas have been identified which are considered to be material sustainability challenges for AGL.

To guide decision making and drive performance in each of the 12 focus areas:

- > a long-term vision has been stated
- > a one-year performance target has been set.

#### Subject areas

Success in each of the 12 focus areas is driven by performance in other subject areas. Where available, performance data is provided.

AGL recognises that there is not always a linear relationship between the identified 'subject areas' and 'focus areas', and that each subject area may have an influence on performance in more than one focus area.

# Sustainability blueprint

# **Economic**

Vision	Target FY2011	Performance FY2011		Target FY2012
Ongoing profitability				
Industry-leading earnings profile based on sustainable business practices.	Underlying profit: \$450–480 million	Underlying profit: \$431.1 million	X	Underlying profit: \$470 – 500 million
Sustainable growth				
Solid credit rating reflecting underlying cash-flow potential.	Credit rating:	Credit rating:	<b>✓</b>	Credit rating:

# **Customers**

Vision	Target FY2011	Performance FY2011		Target FY2012
Customer experience				
Top ranking energy company for customer satisfaction.	Establish new customer satisfaction score and target.	Customer satisfaction score established, monitored quarterly and reported internally during 2011. Target established and embedded within Operational Scorecard.	<b>✓</b>	<ul><li>Customer satisfaction score:</li><li>major competitors</li></ul>
Customers in hardship				
Recognised industry leader in customer hardship policy.	Establish target for average level of energy debt of customers on Staying Connected program.	Target established.	<b>✓</b>	Average energy debt of Staying Connected customers:  5% decrease

# Community

Vision	Target FY2011 Performance FY2011			Target FY2012
Community engagement				
Best practice local community engagement.	Implementation of community engagement plans:	Implementation of community engagement plans <sup>1</sup> : 100%	<b>✓</b>	Improve community engagement by implementing community engagement plan actions: 100%
Community contribution				
Social Return on Investment measured and at targets levels.	Employee Volunteering participation rate:  15%	Employee Volunteering participation rate: 20%	<b>✓</b>	Employee Volunteering participation rate: 25%

In 2010, AGL established a new framework for sustainability reporting. Twelve strategic indicators of success were developed, together with visions to guide performance in the longer term. The FY2011 target for each indicator was published in the 2010 Sustainability Report. An account of performance against each of the FY2011 sustainability targets is detailed below, together with new commitments for FY2012.

# **People**

Vision  Employee engagement	Target FY2011	Performance FY2011		Target FY2012
Engagement score at 'best employer' level.	Engagement score:  65%	Engagement score <sup>2</sup> :  8% point decrease	X	8% point increase
Organisational safety				
Zero harm.	Total Injury Frequency Rate: <b>2.5</b>	Total Injury Frequency Rate: <b>5.0</b>	X	Total Injury Frequency Rate: <b>4.0</b>

# Climate change

Vision	Target FY2011	Performance FY2011		Target FY2012
Carbon risk				
Emissions intensity significantly lower than the market average.	Intensity compared to Australian electricity average <sup>3</sup> :	Intensity compared to Australian electricity average <sup>3</sup> :	<b>✓</b>	Intensity compared to Australian electricity average <sup>3</sup> :
	>50% below	>50% below		>50% below
Sustainable generation sou	ırces			
Australia's largest renewable energy	Renewable proportion of operated generation capacity <sup>3</sup> :	Renewable proportion of operated generation capacity <sup>3</sup> :	<b>✓</b>	Renewable proportion of operated generation capacity <sup>3</sup> :
company.	45%	45%		48%

### **Environment**

Vision	Target FY2011	Performance FY2011		Target FY2012
Environmental risk	3.0			3
To have an environmental risk profile that is 'as low as reasonably practicable' (ALARP).	Update, establish and monitor environmental risk registers for significant power generation and coal seam gas projects.	Environmental risk registers in place, current, and monitored for significant power generation and coal seam gas projects.	<b>✓</b>	Develop biodiversity register for AGL assets and projects which identifies any impacts on biodiversity values.
Water management				
To be recognised as a prudent and responsible user of water that seeks to minimise the adverse impact of its operations on local water resources.	Continue to develop a Water Management Strategy for coal seam gas projects.	A Produced Water Management Strategy for coal seam gas projects has been established.	<b>✓</b>	Implement the Produced Water Management Strategy, and develop plans for drill water and coal seam fracturing/ flowback water.

#### Notes

- 1 Active plans in place for operated, committed projects with activities on the ground.
- 2 Engagement survey undertaken during June and July 2011 with an overall response rate of 73.5%.

<sup>3</sup> Figures refer to the capacity and/or sent-out greenhouse gas intensity (scope 1 and scope 2) of electricity generation assets over which AGL has operational control, regardless of who owns the asset. Assets where AGL has rights to the electricity output only are not included. Australia-wide scope 2 greenhouse gas emissions intensity figure is from the National Greenhouse Accounts Factors published by the Department of Climate Change and Energy Efficiency, July 2011 (latest estimate is 0.91 tCO<sub>2</sub>e/MWh).

# **Governance and management**

## **Governance and management**

Best practice corporate governance standards support sustainable performance by AGL over time.

#### Sustainability and corporate governance

AGL's governance structures and processes are consistent with the Australian Securities Exchange (ASX) Corporate Governance Council's 'Corporate Governance Principles and Recommendations -2nd Edition' issued in August 2007. The eight ASX principles are:

- > **Principle 1:** Lay solid foundations for management and oversight
- > Principle 2: Structure the Board to add value
- > **Principle 3:** Promote ethical and responsible decision making
- > Principle 4: Safeguard integrity in financial reporting
- > Principle 5: Make timely and balanced disclosure
- > **Principle 6:** Respect the rights of shareholders
- > Principle 7: Recognise and manage risk
- > Principle 8: Remunerate fairly and responsibly.

AGL's Annual Report includes a full statement disclosing the extent to which AGL has adopted and met the ASX principles and recommendations. The AGL Annual Report is available at 2011annualreport.aqk.com.au

#### **AGL Board and AGL Board Committees**

At 30 June 2011, the AGL Board comprised eight, independent non-executive directors (including the Chairman of the Board), and one executive director who is the Managing Director and CEO. Detailed information about the structure, responsibility and experience of the AGL Board is included in AGL's Annual Report.

The Board has established three standing committees of its members that meet regularly to oversee key risks affecting the business.

### Safety, Sustainability and Corporate Responsibility Committee

The Safety, Sustainability and Corporate Responsibility Committee operates under a formal Charter, which requires it to oversee promotion across AGL of the principles of safety, sustainability and corporate responsibility as the foundations of good management and good business. The Committee meets on a quarterly basis, visiting various AGL locations, to oversee and review:

- > AGL's actions to meet its obligations to maintain the health and safety of its people
- > the social, environmental and ethical impact of AGL's policies and practices
- > initiatives to enhance AGL's sustainable business practices and reputation as a responsible corporate citizen
- > the integration of safety, sustainability and corporate responsibility in the formulation of AGL's corporate strategy, risk management framework, and people and culture priorities.

A suite of internal sustainability key performance indicators is reported to the Committee at each meeting.

The Safety, Sustainability and Corporate Responsibility Committee Charter is available at agl.com.au/SSCR.

#### Audit and Risk Management Committee

The primary function of the Audit and Risk Management Committee is to assist the Board in fulfilling its responsibilities to provide shareholders with timely and reliable financial reports and to protect the interests of shareholders, customers, employees and the broader community through the effective identification, assessment, monitoring and management of risks. The Committee operates under a formal Charter.

The Audit and Risk Management Committee Charter is available at agl.com.au/ARMC.

#### People and Performance Committee

The People and Performance Committee convenes at least twice yearly to oversee the appropriate recruitment, retention and remuneration of directors, senior managers and other employees with the capabilities necessary to promote AGL.

The People and Performance Committee Charter is available at agl.com.au/PPC.

#### Sustainability management structure

The AGL executive team builds sustainability considerations into business strategy and day-to-day operations.

Responsibility for AGL's sustainability strategy lies within the Economic Policy and Sustainability team within the Corporate Affairs business unit. This team is responsible for developing sustainability strategy and policy, liaising with the business on these policies and reporting progress on sustainability issues.

AGL has also established a Sustainability Implementation Committee comprising representatives from across the business who act as 'champions' for AGL's sustainable business strategy. The Committee meets on a quarterly basis and has been instrumental in developing internal sustainability key performance indicators and establishing sustainability targets for the organisation.

### Key systems and policies

A range of formal policies, plans and management systems govern AGL's day-to-day operations:

### Risk management

AGL recognises that risk is dynamic and is inherent in all external and internal operating environments. AGL is committed to managing all risks effectively, and integrates risk management practices into all business processes and operations to drive consistent, effective and accountable action, decision making and management practice.

AGL has an integrated approach to Enterprise Risk Management which is consistent with the International Standard for Risk Management ISO 31000, the COSO Framework and ASX Corporate Governance Principles. The AGL Board has ultimate responsibility for overseeing the performance of AGL, including effectively monitoring risk management and internal control systems. To assist it in discharging its responsibilities, the Board has established the Board Audit and Risk Management Committee. AGL's Risk Management Policy sets out the objectives and accountabilities for the management of risk within AGL such that it is structured, consistent and effective. Key aspects of AGL's approach to risk management are outlined in the Economic chapter of this report.

AGL's Risk Management Policy is available at agl.com.au/RiskPolicy.

# **Governance and management**

#### Code of conduct

AGL's Code of Conduct sets out a number of overarching principles of ethical behaviour aligned with AGL's core values, and applies to directors, employees and contractors working on behalf of AGL.

The Code is administered by the AGL Ethics Panel. The Ethics Panel comprises: Company Secretary, Group Head of People and Culture, Head of Legal, Head of Group Audit, and an independent person with expertise in managing employee grievances. The responsibilities of the Ethics Panel include putting in place procedures for distribution of, and compliance with, the Code; investigation and reporting of any alleged breaches of the Code; and recommending to the Board any changes required to support the effectiveness of the Code.

The payment of membership fees and subscriptions to political parties is addressed in the Code, and the political networking forums in which AGL participates are outlined in the Stakeholder engagement section of this report.

AGL's Code of Conduct is available at agl.com.au/CodeofConduct.

#### Health, safety and environmental management

AGL's health, safety and environmental management system is based on the recognised standards AS/NZS/ISO 14001 (Environmental Management Systems) and AS/NZS 4801 (Occupational Health and Safety Systems). Life Guard sets the corporate standards and requirements for health, safety and environmental management for all aspects of AGL's business. Life Guard committees monitor and drive performance improvement and compliance with Life Guard.

AGL's Health, Safety and Environment Policy is available at agl.com.au/HSEpolicy.

#### Market disclosure

The Market Disclosure Policy outlines how AGL manages continuous disclosure obligations and communication with capital markets. An internal Market Disclosure Committee is responsible for ensuring that all AGL announcements are timely, contain clearly written, material information, and are objective and factual, to allow investors to assess the consequences of information on their investment decisions.

AGL's Market Disclosure Policy is available at agl.com.au/ MarketDisclosurePolicy.

#### Privacy

AGL's Privacy Statement and companion internal document, the Privacy Policy, outline AGL's responsibilities and commitments in relation to the privacy of customers, shareholders, employees and other stakeholders. The Statement is consistent with the National Privacy Principles, as documented in the *Privacy Act 1988* (Cth).

AGL's Privacy Statement is available at agl.com.au/Privacy.

#### Legislative compliance

AGL is committed to embedding compliance risk management practices within the broader risk management and governance frameworks, and integrating it in to all business processes and operations to drive consistent, effective and accountable decision making. The Compliance Policy and Plan covers legislative requirements, management responsibilities, training, reporting on compliance and provision for internal audit. AGL's approach to compliance is consistent with the Australian Standard on Compliance Programs (AS 3806-2006).

AGL's Compliance Policy is available at agl.com.au/CompliancePolicy.

#### **Public policy advocacy**

AGL aims to provide stakeholders with access to the right information so that the effects of energy market and climate change policy on both AGL's business and AGL's customers are fully understood. AGL participates in the development of public policy by providing submissions, consulting with government, participating in government networking events and by speaking at government inquiries.

AGL also works with a number of energy industry associations to provide common industry and business positions to governments on energy market and greenhouse policy issues. However, there are occasions where AGL's position differs from the association to which it belongs. Where possible, AGL informs stakeholders of this difference of opinion to avoid confusion. Refer to the Stakeholder engagement section of this report for further information.

Copies of AGL's submissions are publicly available on relevant government department websites. Selected submissions are also published on AGL's corporate blog at aglblog.com.au

Key issues for which AGL plays a policy advocacy role are listed below.

### Price risk

Price risks exist for energy retailers where regulated prices do not reflect current energy costs. AGL actively participates in regulatory price reviews when they arise.

#### **Energy regulation**

AGL recognises that an efficient market and regulatory framework assists in ensuring that the industry and its customers are not exposed to inappropriate costs and risks. To facilitate the development of a consistent framework for Australia's energy markets, AGL has made a number of submissions to energy regulators.

#### Climate change

In FY2011, AGL contributed to a number of public policy discussions. AGL continues to advocate the adoption of a broad-based emissions trading scheme in Australia.

# Stakeholder engagement

# Stakeholder engagement

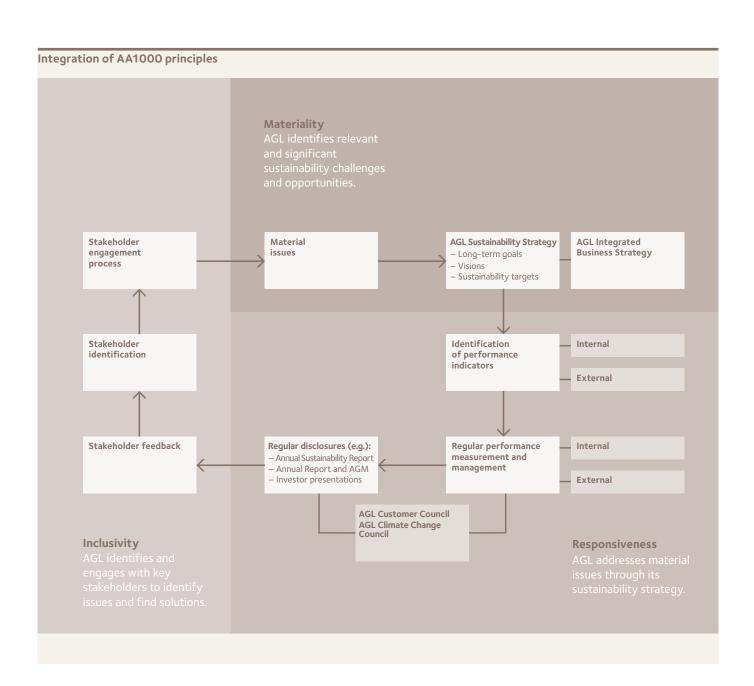
Engaging in constructive dialogue with stakeholders keeps AGL responsive to issues important to customers, employees, investors, regulators and the wider community.

#### **AA1000 principles**

AGL incorporates the principles of inclusivity, materiality and responsiveness, as shown in the diagram below.

The AA1000 principles are:

- > **Inclusivity:** An organisation shall be inclusive
- > Materiality: An organisation shall identify its material issues
- > **Responsiveness:** An organisation shall respond to stakeholder issues that affect its performance.



# Stakeholder engagement

#### Stakeholder groups/main issues

#### **Engagement mechanisms**

#### **Employees**

To remain competitive AGL requires a high performance culture where people are safe, engaged, accountable, empowered, recognised and rewarded.

The key issues for AGL employees include: career development and training; appropriate remuneration and recognition; workplace safety; personal wellbeing, and a fair, equitable and inclusive workplace. Employee engagement surveys show that company reputation and corporate responsibility are important issues for AGL employees.

The AGL Engagement Survey is undertaken annually, and provides employees with the opportunity to give feedback about the organisation.

AGL uses a 360° feedback program for senior executives.

The Senior Leadership Group forum is a mechanism to inform and update leaders across the business about the key priorities, projects and issues of each business group.

AGL holds 'CEO roundtable' events, which provide AGL's CEO with an informal opportunity to meet employees at all levels and to directly hear and discuss successes, challenges, issues and achievements. Four events were held in FY2011.

Twice-yearly Employee Roadshows are held to present financial results, operational highlights, and strategic priorities.

#### Investment community

In addition to market disclosure obligations, AGL recognises the importance of engaging with the investment community about the non-financial risks and opportunities that may influence the company's performance and growth in the longer-term.

Investors are increasingly interested in AGL's responses to environmental, social and governance risks. Around 50% of all funds under management by Australian asset managers fall under a UN PRI commitment to integrate sustainability considerations into their analyses. AGL's preparations for a carbon-constrained future are of particular interest to analysts.

The Annual General Meeting (AGM) provides shareholders with the opportunity to review financial results, and to vote on a range of issues. The AGM also provides the opportunity for shareholders to ask questions of AGL's Directors and senior executives concerning performance and strategy.

AGL makes regular announcements to the ASX concerning significant matters including financial results, acquisitions, and divestments.

AGL publishes an Annual Report and Sustainability Report each year to provide AGL's stakeholders (including investors) with relevant financial and non-financial results for the year, and to provide a summary of AGL's business strategies and plans for the next year. Producing an Annual Report is a legal requirement for AGL, and shareholders are able to provide direct feedback on the results contained within the report at the Annual General Meeting.

AGL voluntarily publishes an annual Sustainability Report to provide a broader spectrum of information regarding social, environmental and economic performance.

In FY2011, AGL held a sustainability webcast which outlined AGL's sustainability performance to mainstream and ethical investors, as well as other interested stakeholders. Following the webcast presentations, stakeholders were provided with the opportunity to question AGL management directly.

AGL participates in the Dow Jones Sustainability Index, the Carbon Disclosure Project and the FTSE4Good Index. These tools are used by the investment community to collect relevant non-financial performance information to facilitate informed investment decisions.

AGL conducts semi-annual independent qualitative and quantitative surveys of equity investors and analysts, allowing these stakeholders to provide unattributed feedback on management, strategy, disclosure, financial performance and balance sheet structure.

Other engagement mechanisms include: institutional investor and equity analyst events, including: domestic and international 'roadshows'; presentations to stock brokers and industry conferences; and investor tours of assets and operations.

#### Government

AGL's business is affected by policy decisions of Federal and State government departments. Governments have responsibility for ensuring the accessibility of essential services, such as energy. As a provider of an essential service, AGL liaises closely with governments.

State and Federal government are concerned with a wide range of issues including: response to climate change, energy prices, and reliability of energy supply.

AGL's Government Affairs personnel have regular dialogue with relevant State and Federal governments in relation to a range of policy issues – including meetings, policy submissions (both directly and via industry associations), and briefings.

AGL is a member of Labour and Liberal political networking forums where these are established in each state where AGL operates. These comprise Progressive Business Victoria (ALP), Progressive Business South Australia (ALP), Business Dialogue New South Wales (ALP) and the Millennium Forum New South Wales (Liberal).

#### Regulators

State energy regulators are responsible for price regulation, and their decisions can have a significant influence on AGL's business

The key issues for state energy regulators include: reliability of energy supply, sustainability of energy supplies, efficient investment in utility infrastructure, and consumer protection.

AGL engages with New South Wales, Victorian, Queensland and South Australian energy regulatory bodies, and national bodies such as the Australian Energy Market Operator and the Australian Energy Market Commission, including direct engagement and activities undertaken as part of industry associations.

#### Investment partners, joint ventures and suppliers

AGL has a range of investments in upstream electricity generation and gas production.

AGL has business relationships with investment partners and suppliers.

The mechanisms for engagement with investment partners, joint ventures and suppliers vary, but can include meetings and correspondence, as well as more formal arrangements including representation on the Loy Yang Power Board and the Environment Committee.

### Energy industry

AGL plays an active role in leading industry support for renewable and greenhouse initiatives within the Australian energy industry.

The business impacts of energy policy are a primary concern for the Australian energy industry.

During FY2011, AGL participated in the Business Council of Australia, the Private Generators Group, the Australian Financial Markets Association, the Energy Retailers Association of Australia, the National Generators Forum and the Clean Energy Council. AGL is also a member of the Energy Supply Association of Australia (esaa) and is a signatory to the esaa Sustainable Practice Framework.

AGL had representatives on the Boards of the Clean Energy Council, the Energy Retailers Association of Australia, the National Generators Forum and the Australian Financial Markets Association.

# Stakeholder engagement

#### Stakeholder groups/main issues

#### **Engagement mechanisms**

#### Customers

To maintain and improve market share within Australia's highly competitive energy market, it is essential that AGL responds to customer feedback, as well as working internally to improve the service delivered to customers. AGL needs to work collaboratively with governments and the community sector to support customers who are experiencing difficulty accessing and affording essential services such as energy.

Customers are concerned with the quality of service provided by AGL; billing and pricing; and the introduction of new energy policy and infrastructure and the resulting impacts for residential and business customers.

The Customer Council meets on a quarterly basis and is briefed on a wide range of matters that affect AGL customers and the communities in which AGL operates.

In November 2009, AGL launched the Customer Connections program which provides opportunities for AGL to interact with small groups of customers in an open discussion about their experiences with AGL.

The AGL Customer Charter outlines AGL's commitment and time frames for responding promptly to phone and written enquiries. AGL's Customer Advocacy team also deals directly with customer concerns.

The account management of AGL's major commercial and industrial customers is approached on a customer-preferred basis; however mechanisms include face-to-face meetings, executive engagement, dedicated communications, general correspondence and carbon briefings.

Other feedback mechanisms available to customers include an online information request facility.

#### Local communities

The success of AGL is shaped and measured not only by the financial outcomes, but by the social and environmental impact that decisions and actions have on the wider community. Engaging with the community on development projects is vital to AGL's long-term success. Only by engaging the community at every stage of the development process, with transparency, accountability and regular communication, is AGL able to deliver and operate projects and maintain the respect of the community.

The key issues for local communities include the environmental, social and economic impacts of developments and infrastructure.

As part of the development approval and construction processes for each major project, AGL consults with the local community and obtains feedback.

Community Consultation Committees (CCCs) are in place for upstream gas projects, including the Camden Gas Project, the Hunter Gas Project and the Gloucester Gas Project. Each CCC is chaired by an independent chairperson and includes local council appointed representatives, local residents, local environment groups and AGL representatives. The CCCs form a key forum for community involvement.

AGL has opened information centres in two areas with significant and relatively new operations. In South Australia, the Burra Information Centre is located near to the Hallett wind farms. In New South Wales, the Hunter Customer Service and Information Centre was opened in May 2011 to share information on coal seam gas operations in the area.

The information centres provide a focal point for local community engagement concerning the construction and operation of infrastructure.

AGL has established a number of websites for energy generation projects in development. The websites provide information on the projects and aim to address community concerns. An online contact form is located on each of the websites, together with the details of a community consultation hotline to allow AGL to respond to specific community enquiries. Refer to the Energy Generation page on the AGL website for further information. (agl.com.au/about/EnergySources/Pages/energy-assets.aspx)

AGL is increasingly using social media to communicate and engage with the community. The AGL Sustainability Blog is a forum for AGL to provide timely and accessible information to interested stakeholders on a broad range of issues, such as: AGL's customer focused initiatives, key external presentations by employees, and rapidly evolving energy policies. The AGL blog is updated frequently, with over 140 blog posts by AGL contributors in FY2011.

#### Non-government organisations (NGOs)

AGL engages with NGOs to understand the causes which they represent and to find constructive ways to work together to deliver mutually beneficial outcomes.

NGOs represent a range of community interests, including social welfare and environmental conservation.

The AGL Climate Change Council includes representatives from AGL and NGOs such as WWF-Australia, Australian Conservation Foundation and the Climate Institute. The Climate Change Council meets quarterly to enable discussion and constructive dialogue on a range of issues relating to climate change, including government policy, emission reduction targets and program implementation.

AGL is a member of the Climate Institute Climate Partners Network. As a Climate Partner, AGL is a constituent of a collective of leading businesses working together to promote climate change solutions and transition Australia to a low-carbon, clean energy economy.

The AGL Customer Council includes representatives from the following NGOs and community groups: Consumer Action Law Centre, Farmers Federation of South Australia, Kildonan UnitingCare, Public Interest Advocacy Centre, Queensland Council of Social Services, St Vincent de Paul Society, UnitingCare NSW ACT and UnitingCare Wesley Adelaide.

# AGL's goal is to deliver superior growth in total shareholder returns and enhance the quality of earnings through sound risk management and diversification of earnings streams.

Australia is embarking upon a decade of transformational reform within electricity and gas markets. Policies such as the Renewable Energy Target will require approximately \$30 billion of new investment in renewable energy infrastructure by 2020. The introduction of the proposed carbon price will also create fundamental shifts in the way energy is produced and consumed. In this environment, achieving growth in total shareholder returns and diversification of earnings streams requires companies to develop portfolio flexibility and significant rigour in their investment process.

AGL has developed sophisticated portfolio flexibility around its core integrated business strategy to thrive in this transformational environment. Rigorous investment processes and appropriate hurdles for the rate of return on investments will continue to drive total shareholder returns.

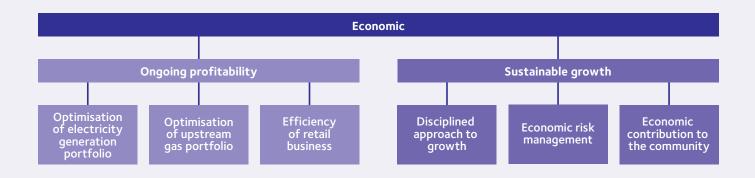
The two key focus areas for the Economic chapter of this report are ongoing profitability and sustainable growth.

**Ongoing profitability:** In a capital constrained environment, shareholder returns as measured by underlying profit<sup>1</sup> are increasingly important. Continued focus on the integrated business strategy and optimising returns from each business unit will position AGL to deliver growth in coming years.

**Sustainable growth:** The nature of the national energy market and the accompanying institutional arrangements means that it is crucial for AGL to have an investment grade credit rating. An investment grade credit rating also generally provides more favourable borrowing margins and offers shareholders additional confidence in the security and sustainability of earnings.

#### Note

1 Underlying profit reflects the actual performance of AGL's business by adjusting statutory profit (reported in accordance with Australian Accounting Standards) by fair value movements and one-off significant items.



Vision	Target FY2011	Performance FY2011		Target FY2012
Ongoing profitability				
Industry-leading earnings profile based on sustainable business practices.	Underlying profit: \$450–480 million	Underlying profit: \$431.1 million	X	Underlying profit: \$470–500 million
Sustainable growth				
Solid credit rating reflecting underlying cash-flow potential.	Credit rating:	Credit rating:	<b>✓</b>	Credit rating:

# **Ongoing profitability**

# Introduction to ongoing profitability

In a capital constrained environment, shareholder returns as measured by underlying profit are increasingly important. Continued focus on its integrated business strategy will position AGL to deliver growth in coming years.

#### **Approach**

AGL retails gas and electricity to residential, small business, commercial and industrial customers. The cost of supply fluctuates with movements in energy prices. AGL's integrated business strategy balances risk between upstream supply of energy and customer demand for energy.

Vertical integration provides AGL with a natural hedge against energy price movements, while providing access to multiple profit pools. Horizontal integration through operating across the National Electricity Market provides further diversification of earnings streams. Benefits flow through to customers in the form of lower energy costs and to shareholders in the form of dividends resulting from diversified sources of income and improved quality of earnings. This approach is known as the AGL integrated business strategy.

**Vision for ongoing profitability**: AGL's vision is to have an industry leading earnings profile based on sustainable business practices.

**Drivers:** Delivery of AGL's integrated business strategy has a direct influence on the underlying profit result and on other financial performance indicators. Optimisation of performance in the three business areas of electricity generation (Merchant Energy), Upstream Gas and Retail Energy is addressed on pages 17 to 19.

#### **Performance**

AGL delivered an Underlying Profit of \$431.1 million for FY2011, representing a 0.5% increase compared to the prior corresponding period. This result was below the initial guidance range (\$450–\$490 million) issued to the market on 21 October 2010, but within the upper end of the revised guidance range of \$415–\$440 million issued on 7 February 2011. The underlying profit was largely driven by strong Retail performance, off-set by reduced Loy Yang earnings and impacts of one-off weather events.

On 27 October 2011, AGL announced a guidance range of \$470-\$500 million for FY2012.

AGL shareholders were paid dividends totalling 60.0 cents per share for the full financial year FY2011, an increase of 1.0 cent per share, or 1.7%, on the FY2010 dividend.



### **Economic**

# **Ongoing profitability**

# Optimisation of electricity generation portfolio

AGL has Australia's largest privately owned, operated and controlled portfolio of renewable generation assets and a pipeline of renewable development opportunities.

AGL's integrated business strategy is consistent with a carbon constrained future.

#### **Approach**

Amendments to the Commonwealth Renewable Energy Target were legislated in June 2010. Energy companies now have the legislative certainty required to proceed with the significant investments necessary to meet the mandatory target. Over the next decade, it is estimated that the industry will need to spend approximately \$30 billion on new renewable generation assets. Based on current customer numbers, AGL would need to invest approximately \$4.9 billion if it were to meet its share of the mandated scheme. The current and future earning potential of AGL's electricity generation portfolio is influenced by many factors, including the operational efficiency of the assets and their availability and ability to start reliably when electricity prices are high.

For wind farms, the capacity factors achieved determine revenue, and AGL recognises the importance of accurately projecting capacity factors during the development stages of projects to ensure that actual performance meets the investment case.

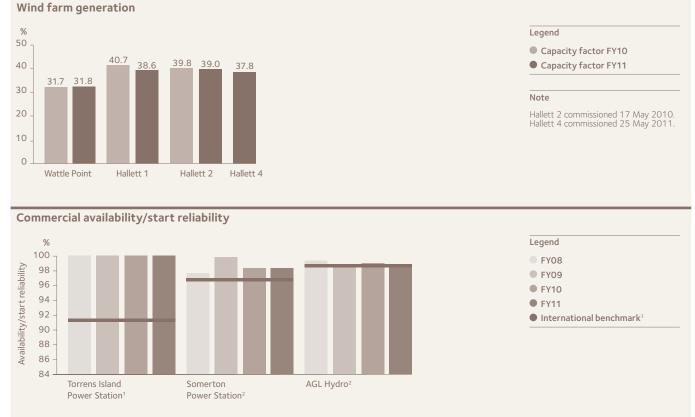
For all renewable generation assets, revenue is partly dependent on the value of Renewable Energy Certificates and partly on the wholesale National Electricity Market price. Higher returns are possible where individual investor costs are lower than the costs associated with the marginal project required to meet the Renewable Energy Target. Through early site selection, AGL has sourced some of the best sites for wind development in the country, allowing for potentially greater returns over the long term.

#### **Performance**

During FY2011, the operational performance of gas and hydro generation assets has been strong with dam levels at Eildon and Dartmouth increasing from 27% and 33% respectively, as at 1 July 2010, to 86% and 64% respectively as at 30 June 2011.

Commercial availability and start reliability of generation assets show strong performance well above the international benchmark, as highlighted in the chart below.

During FY2011, AGL completed the construction of 132 MW of new renewable energy. At 30 June 2011, AGL had 540 MW of new renewable generation under construction. Renewable and gas-fired generation projects under development are listed on page 3 of this report.



#### Notes

- 1 Commercial availability is used to measure Torrens Island Power Station performance, and represents the percentage of times the plant is available to operate when required.
- Start reliability is used to measure the performance of Somerton and AGL Hydro. Start Reliability is the percentage of times the plant started successfully when asked to start.
   North American Electric Reliability Council Five Year Average. Note that the benchmark for Hydro facilities has been adjusted for the difference in operating regime between the North American fleet and AGL's fleet which operate as peaking plant which increases the frequency of starts and stops.

# **Ongoing profitability**

## Optimisation of upstream gas portfolio

AGL has a target of acquiring 2,000 PJ of 2P gas reserves in the medium term to manage security of supply.

#### **Approach**

AGL continues to be a significant purchaser of gas in the wholesale market. AGL's Upstream Gas group is focusing on building a diversified domestic gas portfolio to deliver duration and flexibility. AGL is targeting medium-term ownership of around 2,000 PJ of 2P upstream gas reserves for domestic supply¹, but will continue to purchase gas from the wholesale market if this achieves superior economic outcomes.

#### Performance

Over the past 12 months, AGL's gas reserves entitlement has been expanded by 511 PJ (32%) to 2,089 PJ at the 2P level, and by 268 PJ (80%) to 3,640 PJ at the 3P level. In the first half of the year, AGL booked its first gas reserves in the Hunter Valley (142 PJ). AGL's share of gas reserves in the Bowen Basin increased by 310 PJ during the year, and the Mosaic acquisition also contributed to reserves growth with 69 PJ of 2P reserves booked at 30 June 2011.

Over the next several years, AGL intends to focus on proving up additional reserves. The potential value creation is substantial, although the contribution to earnings will be limited until the reserves are developed and ready for production and delivery to market.

It is anticipated that with the investments and existing wholesale contracts in place, AGL will be able to satisfy supply requirements for customers well beyond 2018. The combination of remaining wholesale contract volumes plus reserves demonstrates growth in the sustainability of the business.

On 14 July 2010, AGL and Mosaic Oil NL (Mosaic) entered into a Scheme Implementation Deed, under which AGL proposed to acquire all of the issued shares in Mosaic by way of a Scheme of Arrangement (Scheme). Under the Scheme, Mosaic shareholders could elect to receive either \$0.15 cash per Mosaic share or 1.01 AGL shares for every 100 Mosaic shares.

The Scheme was implemented on 20 October 2010, on which date AGL acquired 100% of the voting shares in Mosaic and obtained control. The consideration paid was \$142.6 million, and comprised an issue of equity instruments and cash. The fair value of shares issued was determined using the published price at the date of exchange. 6,984,172 ordinary shares in AGL were issued on 20 October 2010 at a closing price of \$16.61.

Mosaic's principal activities are the production of, and development and exploration for, oil and gas. Mosaic's main producing assets are located in the Surat-Bowen Basin in south-east Queensland. Mosaic operates fields and discoveries in 10 petroleum leases, owns and operates the Silver Springs processing facility, and owns 100% of the Wallumbilla LPG plant and associated pipeline. Mosaic holds varying interests in exploration permits in the Surat-Bowen Basin, the Cooper-Eromanga Basin and New Zealand's Taranaki Basin. Mosaic also has a 33.3% interest in an oil storage tank and unloading facility at Lytton in Brisbane.

AGL carried out a comprehensive review of Mosaic's businesses and assets to determine which are core and non-core to AGL's integrated energy strategy going forward. AGL has disposed of Mosaic's interest in the exploration permit in the offshore Carnarvon Basin in Western Australia, and is in the process of selling Mosaic's interests in the exploration permits in New Zealand's Taranaki Basin.

AGL is currently developing a gas storage facility at Mosaic's depleted Silver Springs/Renlim gas fields in the Surat Basin.

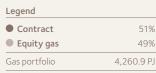
Acquisition-related costs amounting to \$3.5 million have been excluded from the consideration paid and have been recognised as an expense in the period, within the 'other expenses' line item in the income statement (refer to AGL Annual Report).

From the date of acquisition, the entity has contributed \$9.3 million to revenue and a loss of \$0.7 million to profit before tax.

#### Note

1 Excludes ATP 1103









# **Ongoing profitability**

# **Efficiency of retail business**

Optimisation of AGL's operating model to deliver a 'lowest-cost-to-serve' outcome is crucial, given that retail energy markets in which AGL competes are among the most competitive in the world.

#### Approach

AGL is focusing on the management and growth of margins, by leveraging its upstream strategy and achieving retail economies of scale through a service platform capable of supporting four to five million customers.

Following the implementation of a new SAP billing system in 2009, AGL's focus in 2011 was to drive improvements in the customer experience, to improve operational efficiency and to increase customer numbers.

AGL undertook two major restructuring initiatives during the year. Firstly, and largely completed before 31 December 2010, was the transitioning of substantial retail back-office processes (mainly non-customer facing billing and sales fulfilment) to offshore service providers. This involved redundancy and restructuring costs of \$8.0 million before tax of which \$6.5 million was recognised and disclosed in the interim results.

Secondly, as part of the annual budget cycle which commenced in March 2011, AGL identified a number of opportunities to improve operating efficiencies and organisational reporting lines. As a result, a number of employment positions became redundant.

#### **Performance**

Note

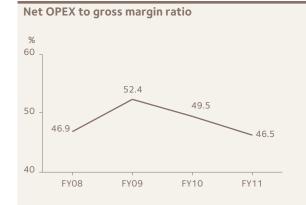
1 Customer numbers rounded to nearest thousand

Relatively high levels of retail competitor activity persisted throughout FY2011. AGL's average national customer churn for FY2011 was 16.2%, compared to an average market churn of 20%.

During the year, total customer accounts increased by 53,920 to approximately 3.3 million. Importantly, dual fuel customer numbers increased by 109,600 (8.0%) to 1.47 million.

The business is now operating more efficiently, with the level of operating costs as a proportion of gross margin falling from 49.5% in FY2010 to 46.2% in FY2011.

The ongoing business priorities for Retail Energy are to profitably build AGL's retail capability, achieve operational excellence and continue improving customer service. During FY2011, Retail Energy commenced a project to grow AGL's total New South Wales electricity customer base to between 800,000 and 900,000 customers over the next three years.



#### Retail markets by state and fuel type<sup>1</sup> State **Electricity** Total 718,000 468,000 1,186,000 473.000 639.000 1.112.000 468,000 104.000 571.000 74,000 350,000 424.000 Total accounts (Net) 30 June 2011 1.369.000 1,925,000 3.294.000 Percentage change from 30 June 2010 0.0% +2.8% +1.6%

# Sustainable growth

# Introduction to sustainable growth

An investment grade credit rating generally provides more favourable borrowing margins and offers shareholders additional confidence in the security and sustainability of earnings and dividends.

### Approach

The National Electricity Market is a gross pool, uniform, first-price, electricity market auction. The market design and accompanying institutional arrangements require large retailers to retain investment grade credit ratings to ensure smooth flow of trade and transactions in the wholesale market. Critically, an investment grade credit rating and improved capital efficiency substantially enhance AGL's ability to fund future growth.

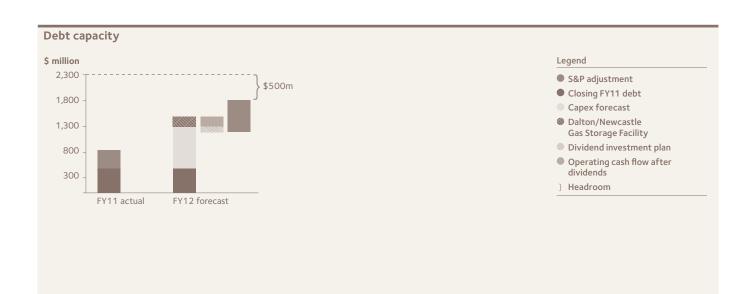
**Vision for sustainable growth:** AGL's vision is to maintain a solid credit rating reflecting underlying growth potential.

**Drivers:** Applying a disciplined approach to growth (page 21) and an appropriate economic risk management framework (page 22) are crucial strategies in maintaining a BBB credit rating in the long term, and allowing sustainable growth. Sustainable growth through future investments in electricity generation and upstream gas is also contingent on delivering new projects that provide economic benefit to both AGL and the community (page 23).

#### Performance

In its annual ratings review, Standard & Poors (S&P) reaffirmed AGL's long-term credit rating of BBB/stable. Based on debt levels at 30 June 2011 and forecast capital expenditure for FY2012, AGL has debt headroom available to maintain a BBB credit rating.

In July 2011, AGL signed two financing transactions totalling A\$1.2 billion. These transactions lengthen AGL's debt maturity profile and further diversify its funding sources. The transactions include an A\$1.0 billion syndicated loan facility with three- and five-year tranches and an A\$200 million loan agreement with EKF, the Danish export credit agency.



### **Economic**

# Sustainable growth

## Disciplined approach to growth

A disciplined approach to growth is critical to improving shareholder returns and maintaining sustainable growth.

#### **Approach**

AGL's rigorous investment processes, appropriate hurdle rates of return and focus on return on assets (EBIT to Funds Employed Adjusted) will contribute to maintaining a BBB long-term credit rating.

#### Performance

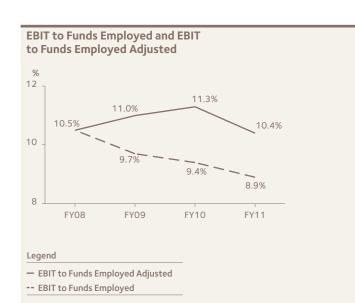
#### EBIT to Funds Employed + Adjusted

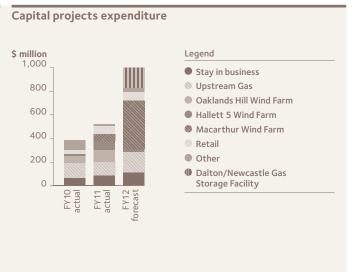
EBIT to Funds Employed Adjusted measures return on investment and the efficiency of AGL's assets. This metric is used to calculate Long Term Incentive Plan entitlements for the AGL executive team and nominated senior leaders to ensure a close alignment with shareholders' interests.

EBIT to Funds Employed Adjusted decreased at the FY2011 result due to reduced earnings from extreme weather events at the beginning of the calendar year. An improvement on the FY2011 result is being targeted for FY2012.

#### Capital management and expenditure

Focus on capital management and operating cash flow has enabled AGL to further strengthen its balance sheet. This leaves AGL well positioned to continue investing in its pipeline of electricity generation and upstream gas development projects. AGL has indicative capital commitments for FY2012 of almost \$1.0 billion. AGL maintains flexibility to accelerate or defer capital expenditure on its projects depending on market conditions.





# Sustainable growth

## **Economic risk management**

AGL effectively manages economic risks by integrating risk assessment into decision-making and management processes.

#### Wholesale energy risks - approach and performance

A number of commercial optimisation activities are utilised in AGL's electricity, gas and environmental products portfolio management division, including:

- > reducing wholesale electricity costs through optimising load diversity between customer classes and regions
- > optimising across the gas and electricity portfolios with arbitrage opportunities provided by gas generation assets
- > accelerating or decelerating hedging programs based on AGL's view of future market prices
- > employing a variety of instruments including weather derivatives to balance risk and return.

All of these commercial activities have independent risk management oversight to maintain portfolio positions within defined limits. Risk management performance is monitored through a continuous review of hedging contracts, the physical portfolio position and the possible economic outcomes from these positions. A Risk Management Committee of senior business managers meets regularly to review these performance measures.

During FY2011, portfolio projected positions and portfolio projected economic risk measures remained within the required limits of the Wholesale Energy Risk Management Policy. However, extreme weather events were experienced across the Australian eastern states in January and February 2011, including floods and cyclone Yasi in Queensland, floods in Victoria and extreme temperatures in Sydney, Melbourne and Adelaide. These weather events had a significant financial impact upon AGL resulting in a profit downgrade for the year. Reviews presented to the Risk Management Committee and the AGL Board confirmed that these were extreme weather events of an unforeseeable nature and prevailing risk management limits for projected positions were still considered appropriate.

#### Price regulation risks - approach and performance

A key issue within the energy sector is the continued regulation of household and small business electricity and gas prices by state governments. In FY2009, Victoria became the first state in Australia to discontinue regulation of retail prices and in 2010 it was nominated as one of the most competitive retail electricity markets in the world in the World Energy Retail Market Rankings Report by Vaasa ETT. Some other states have also committed to remove price regulation when competition is demonstrated to be effective. AGL continues to be concerned about the financial risks that exist for energy retailers where regulation of prices is continued, as there will always be a risk that the regulated rate will not reflect current energy costs.

AGL is an active participant in price review processes across the National Electricity Market. During FY2011, the Essential Services Commission of South Australia completed a review of the methodology used to set regulated electricity prices in South Australia. Reviews of regulated electricity prices were carried out in New South Wales and Queensland under existing methodologies. In May 2011, the Queensland Government directed the Queensland Competition Authority to review the retail electricity pricing methodology and tariff structures for regulated customers commencing 1 July 2012. AGL will continue to work closely with the Government, regulators and other stakeholders on these issues.

During the year, AGL has also been involved in regulated gas pricing processes in New South Wales and South Australia. In New South Wales, regulated gas prices were adjusted in line with the existing price path determined by the regulator in 2010. In South Australia, AGL participated in the review of regulated gas prices for the period covering 2011 to 2014.

#### Treasury risks - approach and performance

AGL's activities expose it to a variety of financial risks. These risks include market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. AGL's overall risk management program focuses on the unpredictability of markets and seeks to manage the impact of these risks on AGL's financial performance, by utilising a range of derivative financial instruments to hedge risk exposures.

During FY2011, hedging thresholds for interest rate, foreign exchange and credit risk were consistent with the Treasury Policy. AGL's stated policy is to further diversify its funding sources and lengthen the maturity profile.

AGL has a BBB stable credit assigned by Standard & Poors, and AGL manages its balance sheet, financial ratios and risks with the objective of retaining this rating.

### **Economic**

FTE = Full-time equivalent

# Sustainable growth

## **Economic contribution to the community**

AGL's capability to deliver new renewable energy and upstream gas projects is dependent on AGL adopting a sustainable project delivery model whereby new projects deliver economic benefit to both AGL and the community.

### Hallett wind farms economic impact assessment

AGL has five wind farm projects situated in the Hallett region of South Australia, and as such has a significant presence in the local community.

During FY2010, AGL engaged Sinclair Knight Merz to undertake an assessment of the economic impact the Hallett wind farm projects have had, and are likely to have, on the mid-north region of South Australia. A summary of the key findings of this study was presented in the 2010 Sustainability Report and is also presented below.

Following the completion of the AGL Hallett 5 Wind Farm, AGL is looking to revisit the study to evaluate the final economic impact of the projects.

AGL is continuing to use the Hallett Wind Farms Economic Impact Assessment results to model the likely economic benefits on other communities where wind farms are being developed.

#### **Coal Seam Gas Housing Market Assessment**

There has been some conjecture that AGL's coal seam gas activities have disrupted local housing markets and caused housing prices to suffer.

During FY2011, AGL engaged RP Data Pty Limited (RP Data) to undertake an analysis of housing markets in and around areas where AGL is actively producing or exploring for coal seam gas, namely Camden, the Hunter Valley and Gloucester in New South Wales and Moranbah in Queensland.<sup>1</sup>

The study involved an analysis of median house price movements and the number of transactions recorded over time within each of the areas. The results for each area were compared with a broader benchmark region that provides a reference point for the broader market average.

RP Data concluded that "The analysis shows that the housing markets within each of the regions where AGL are active have shown no discernible deviation from broader market trends. Across each of the four operational regions studied, median price movements and transaction volumes are generally moving in line with the broader benchmark results".

#### Note

1 Moranbah Gas Project is a joint venture between AGL and Arrow Energy, operated by Arrow Energy.

#### Hallett wind farms economic impact assessment results (June 2010) On completion of Hallett 1, 2, On completion of Hallett 1, 2, **Economic impact** June 2010 3, 4 and 5 4 and 5 Project development and construction expenditure (total) \$800 million \$897 million \$1,065 million \$88 million \$111 million \$132 million Project development and construction expenditure (regional) Ongoing operational expenditure (total per year) \$25 million \$30 million \$12.5 million \$15 million Ongoing operational expenditure (regional per year) Ongoing annual increase to Gross Regional Product 1.15% 1.4% Average annual direct construction employment (regional) 98 people 90 people 80 people Average annual direct construction, manufacturing and support employment (regional/national/international) 185 people 200 people 190 people Total direct construction job years (regional) 450 FTE 540 FTE 640 FTE Total direct construction, manufacturing and support job years (regional/national/international) 850 FTE 1,000 FTE 1,200 FTE Total direct operations jobs per year (regional) 15 people 36 people 42 people Additional indirect job years (regional/national/international) 2.400 FTE Note

# **Economic**

# **Financial Performance Summary**

# Financial performance summary

Detailed financial information is available in AGL's 2011 Annual Report, which is available at agl.com.au

Financial performance summary				
	FY08	FY09	FY10	FY11
Revenue	5.7b	6.1b	6.6b	7.1b
Operating earnings before interest and tax <sup>1</sup>	693.2m	643.1m	652.1m	656.5m
Net finance costs	175.9m	94.0m	47.5m	37.4m
Underlying net profit after tax <sup>1</sup>	341.0m	378.8m	428.9m	431.1m
Underlying basic earnings per share	78.3 cps	85.0 cps	95.6 cps	94.4 cps
Total annual dividend <sup>2</sup>	53.0 cps	54.0 cps	59.0 cps	60.0 cps
Total assets <sup>3</sup>	9.5b	9.0b	8.7b	9.7b
Shareholders' equity	5.0b	5.8b	5.8b	6.3b
Underlying operating cash flow (before tax)	501.2m	509.3m	630.3m	676.0m
Total capital expenditure	324.6m	552.1m	389.7m	522.6m
Gearing [net debt/(net debt + equity)]	29.0%	7.8%	6.7%	6.9%
EBIT to average funds employed return	10.5%	9.7%	9.4%	8.9%
EBIT to average funds employed adjusted return	10.5%	11.0%	11.3%	10.4%

- Excluding significant items and fair value movements of financial instruments.
   Dividends in FY2008, FY2009, the interim dividend for FY2010, and final dividend in FY2011 were fully franked (the final dividend for FY2010 and interim dividend in FY2011 were unfranked).
- 3 Includes derivative financial instrument contracts at fair value.

D	ictri	hutio	of.	revenue
$\boldsymbol{\nu}$	ISLII	DULIOI	101	revenue

	FY08	FY09	FY10	FY11
Revenue <sup>1</sup>	5,653.5m	6,051.1m	6,610.7m	7,072.5m
Other income <sup>2</sup>	223.7m	1,869.2m	6.4m	0
Total revenue	5,877.2m	7,920.3m	6,617.1m	7,072.5m
Cost of goods, services, materials and other external costs	-5,317.0m	-5,633.2m	-5,895.6m	5,911.7m
Wages, salaries and benefits to employees	-259.1m	-283.5m	-318.1m	-330.6m
Dividends to shareholders	-225.6m	-236.1m	-255.9m	-268.4m
Net interest paid on borrowings	-151.9m	-81.5m	-35.8m	-25.5m
Income tax (expense)/income	62.2m	-390.6m	-21.5m	-234.9m
Movement in retained earnings	-14.2m	1,295.4m	90.2m	301.4m

### Notes

- 1 The breakdown of revenue for FY2009 has been restated.
- 2 Includes profit on sale of non-core assets.

# AGL's goal is to become a world-class customer-focused energy company

AGL's customer base is both large and diverse. This requires AGL to provide a range of services that provide the customer with an 'easy to do business with' experience and an 'exceeded expectations' result.

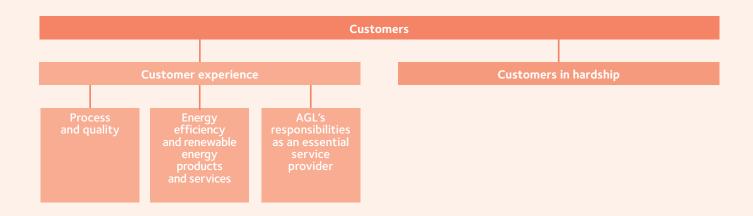
Throughout FY2011, AGL has implemented a number of programs and initiatives designed to enhance customers' experience and achieve results, including:

- > further empowering call centre employees to improve first contact resolution
- > continuing the Customer Connections Program, which involves meeting with and listening to customers to understand areas where AGL can improve
- > reviewing customer service, to develop a consistent coaching and call-handling framework
- > launching AGL Energy Online. AGL is the first energy retailer in Australia to offer this 'internet banking' style of customer service. Customers registered to use AGL Energy Online can manage their energy account online, view and pay their bills and track their consumption history
- > delivering paperless billing to customers through AGL Energy Online.

The two key focus areas for the Customer chapter of this report are customer experience and customers in hardship.

**Customer experience:** There are a range of contributing factors that affect customer experience. This section of the report outlines how AGL measures customer experience, and provides performance data on some critical aspects of service delivery over the past 12 months. This chapter also addresses energy efficiency services and renewable energy products that AGL offers, and the way in which AGL manages its responsibilities as an essential service provider.

Customers in hardship: AGL recognises the importance of assisting vulnerable customers reach a sustainable energy consumption position. AGL addresses this issue from a number of perspectives including information provision, community support and direct assistance through the Staying Connected program. The average level of debt for customers on the Staying Connected program is the primary measure to indicate the level of success in early intervention and assisting customers return to a sustainable energy consumption position.



Vision  Customer experience	Target FY2011	Performance FY2011		Target FY2012	
Top ranking energy company for customer satisfaction.	Establish new customer satisfaction score and target.	Customer satisfaction score established, monitored quarterly and reported internally during FY2011. Target established and embedded within Operational Scorecard.	<b>✓</b>	<ul><li>Customer satisfaction score:</li><li>major competitors</li></ul>	
Customers in hardship					
Recognised industry leader in customer hardship policy.	Establish target for average level of energy debt of customers on Staying Connected program.	Target established.	<b>✓</b>	Average energy debt of Staying Connected customers:  5% decrease	

# **Customer experience**

### Introduction to customer experience

AGL measures customer satisfaction to monitor whether initiatives are successful in improving the customer experience.

#### **Approach**

The AGL Customer Charter clearly outlines for both customers and employees what customers can expect from AGL. The Charter contains a set of customer promises, and defines the standards to which AGL can be held to account.

The Charter is available on the AGL website at agl.com.au/charter.

Within the Customer Charter there are four key promises:

- > We will deliver quality service
- > We will provide value for money
- > We will understand our customers' needs and deliver to them
- > We will be there with the answers for our customers.

AGL strives to deliver on these promises, meeting the needs of customers by providing a consistent level of service.

AGL uses a range of measures to assess whether the Customer Charter promises are being met, including speaking directly with customers. For example, 'after call' surveys are carried out within AGL customer service centres. From the information acquired, robust root cause analysis is undertaken to understand the drivers of customer dissatisfaction, as well as where processes can be changed to improve the customer experience.

**Vision for customer experience:** AGL's vision is to be the top ranking energy company for customer satisfaction, by delivering on a range of initiatives and continuous improvement programs throughout the Retail Energy business.

This section of the report includes information on how AGL monitors customer experience and satisfaction (page 27), the types of energy efficiency and renewable energy products and services offered to customers (page 29), and the ways in which AGL addresses its responsibilities as an essential service provider (page 30).

#### **Performance**

AGL measures customer satisfaction each quarter to gauge the degree to which customers are serviced to the standard they expect, and whether initiatives to improve customer service have been successful. On a quarterly basis a sample of customers across all energy retailers are asked: "Overall, how satisfied are you with the services provided by your current energy retailer on a scale of 0 to 10, where 0 is not at all satisfied, 5 is neutral and 10 is extremely satisfied". The mean (average) of respondent's scores is determined for each retailer.

During FY2011, AGL's customer satisfaction score averaged 6.65, with a score of 6.67 in the fourth quarter of FY2011.

This is the first year that measurement of customer satisfaction has been used and benchmarked against major competitors. In FY2012, AGL has set a target to have a better customer satisfaction score than major competitors.

# **Customer experience**

## **Process and quality**

AGL measures success in customer experience using a range of performance indicators and by participating in external benchmarking programs.

#### **Customer Charter Metrics**

AGL's Customer Charter Metrics were established and monitored to enable AGL to measure the customer experience. The Customer Charter Metrics are published externally on AGL's website and enable customers to hold AGL to account.

A number of the Customer Charter Metrics are supported by 'service level commitments', which enable AGL to measure and track achievement of certain Customer Charter promises.

The Customer Charter Metrics, published quarterly on AGL's intranet, are:

#### We will respond to you

AGL's FY2011 target for customer service centres was for 75% of calls to be answered by customer service representatives within 30 seconds during normal business hours. This target was not met during FY2011, with the performance levels achieved each quarter being 73.42%, 61.25%, 65.43% and 63.38%. AGL will continue to strive to improve response times and will again seek to achieve a 75% target in FY2012.

#### We will always try to resolve your enquiry first time

AGL aims to have customer service representatives resolve a customer's enquiry on the first call. AGL commenced measurement of first call resolution in the second half of FY2011. For the fourth quarter of FY2011, 80.06% of all enquiries were resolved during the first call.

#### We can help you move

AGL aims to help a customer move premises by raising the customer's move request with the distributor within 24 hours of application.

In FY2011, AGL set a target to raise 95% of move requests within 24 hours, and this level of service was consistently met.

#### We will connect your energy supply

AGL promises to work with a customer's distributor in order to determine the availability of supply. On average, new connections take up to 15 days depending on access and availability of supply.

Since measurement commenced in 2011 (calendar year), the average number of days taken to connect energy supply was 20% better than the target of 15 days.<sup>1</sup>

#### We will bill you on time

Last year, AGL reported that a driver of the high complaint levels experienced was the unacceptable delay in the billing of a number of customers. In FY2011, AGL achieved an unbilled rate of less than 1%, thereby meeting its target of having 99% of customers billed every three months (every two months in Victoria for gas).

AGL recognises that bill smoothing can assist customers to better manage their energy costs. As at end FY2011, over 98,000 customers were on the bill smoothing program, and an increasing number of customers are expected to take up this payment option in FY2012.

#### **Net Promoter Score**

Net Promoter Score (NPS) is a widely used measure of customer loyalty, and is based on how likely a customer would be to recommend AGL as an energy provider. AGL's NPS is measured quarterly via an external survey that asks customers across all energy retailers "on a scale of 0–10, how likely is it that you would recommend Retailer X to a friend or colleague?"

The NPS is calculated by subtracting the percentage of 0s to 6s from the percentage of 9s and 10s.

AGL's average NPS for FY2011 was -36.6, an improvement of 23% compared to the FY2010 average of -47.2. During FY2011 AGL's NPS peaked at -30.5, compared to a peak score during FY2010 of -41.9.

Customer Charter	Our promise	Average FY2011 result	Year end result
We will respond to you	We will answer your calls promptly during normal business hours.	65.87% of calls answered within 30 seconds	63.38% of calls answered within 30 seconds
	We will always try to resolve your enquiry first time.	79.97% of calls resolved during first call	80.06% of calls resolved during first call
We can help you move	Let us know at least three business days before you move and we can arrange supply of energy to the property to which you are moving.	95.48% customers connected with energy when three business days notice of move provided	96.29% customers connected with energy when three business days notice o move provided
We will connect your energy supply	On average, new connections take 15 business days subject to access and availability of supply.	Average new connection took 12.5 business days <sup>1</sup>	Average new connection took 12 business days <sup>1</sup>
We will bill you on time	If you're a residential or small business customer, we will send a bill at least every three months (every two months for Victoria gas).	Bills issued to 99.76% of customers on time	Bills issued to 99.80% of customers on time
We will help those having difficulty paying	If you're a residential customer you also have the option of bill smoothing.	98,294 customers on bill smoothing program	98,294 customers on bill smoothing program

## Note

1 The results exclude South Australian electricity customers, where an appointment system is used and is outside of AGL's control.

# **Customer experience**

#### **Customer Services Benchmarking Australia (CSBA)**

AGL benchmarks the customer service provided in all three customer service centres via an external program. CSBA conducts mystery shopping calls to customer service centres, and provides quarterly reports ranking AGL's performance against other energy and utility companies. In the fourth quarter of FY2011, AGL was ranked eleventh out of the energy companies surveyed, compared to seventh in the corresponding quarter of FY2010. The decline in AGL's ranking can be attributed to higher than expected call volumes due to increased sales activity and churn in New South Wales.

#### **Ombudsman complaints**

AGL received a total of 15,058 Ombudsman complaints during FY2011. This represents a reduction in total Ombudsman complaints of 14% compared to FY2010, with the largest decreases experienced in Queensland and Victoria. In the quarter ending 30 June 2011, AGL received 45 complaints per 10,000 customers, a 10% reduction compared to the corresponding quarter of FY2010.

AGL measures Ombudsman complaints not only as an absolute number, but also in terms of the company's market share of complaints against overall customer market share, enabling an understanding of how AGL compares to other retailers. On this measurement, AGL has seen a significant improvement. AGL had set a target of achieving a 5% reduction in its market share of Ombudsman complaints for FY2011. This target (which was included as one of the performance hurdles in the AGL Share Reward Plan for employees) was met, with AGL reducing its national market share of Ombudsman complaints from 27% at end FY2010 to 22% at end FY2011. AGL's focus on 'first call resolution' is likely to have been a key contributing factor in reducing the number of customer complaints which were escalated to the Ombudsman. First call resolution will continue to be a focus in FY2012.

Importantly, Ombudsman complaints provide AGL with a reference to areas of the business that require improvement. Root cause analysis of Ombudsman complaints is undertaken and fed back into the business in order to rectify issues where possible. In FY2012, the majority of Ombudsman complaints related to high bill and re-bill issues, identification and management of payment difficulties and incorrect or estimated meter readings.



#### Notes

- 1 Reported figures represent complaints to the various state Ombudsman Offices that are provided to AGL for resolution. Enquiries, complaints referred to other agencies or instances where the customer has been advised by the Ombudsman to contact AGL directly are not included.
- 2 All ActewAGL complaints are excluded
- 3 Data from FY2010 and FY2011 includes Ombudsman complaints related to PowerDirect.

#### Ombudsman complaints (percentage of market share)<sup>1,2,3</sup> % Legend 30 -- AGL percentage 29 28 - AGL's market share ,27% 27 26% 26 25 24 24% 23% 23 23% 22 21 20 0 0 10 10 10 √ug Oct . · >0

#### Notes

- 1 Reported figures represent complaints to the various state Ombudsman Offices that are provided to AGL for resolution. Enquiries, complaints referred to other agencies or instances where the customer has been advised by the Ombudsman to contact AGL directly are not included.
- 2 All ActewAGL complaints are excluded.
- 3 Data from FY2010 and FY2011 includes Ombudsman complaints related to PowerDirect.

# **Customer experience**

# Energy efficiency and renewable energy products and services

AGL offers a range of services and products to customers to improve the energy efficiency and greenhouse performance of homes and businesses. These services are targeted to address the common barriers to energy efficiency uptake and to provide customers with choices on the greenhouse intensity of the energy they consume.

#### **Energy efficiency**

Energy efficiency is widely accepted as a key complementary measure to the introduction of a price on carbon and the setting of renewable energy targets. Helping customers understand energy efficiency, and assisting them to implement energy efficiency measures in their home or business, improves customer experience. Furthermore, increased energy efficiency in residential properties can ameliorate the impact of increasing energy prices for customers, which is particularly important for customers experiencing financial hardship.

For many years, AGL has provided a range of information services on energy efficiency, both online and in print.

AGL continues to meet all its regulated targets under the Victorian, South Australian and New South Wales state-based energy efficiency schemes. More than 1,049,295 tCO $_2$ e of abatement has been created since the schemes were implemented (from 2009) through energy efficiency activities for residential households. This abatement was created from installations such as energy saving light bulbs, low-flow showerheads and energy efficient hot water systems.

Since 2009, 3,258 household audits and assessments have been completed for concession card holders to meet the targets specified under the South Australian energy efficiency scheme. In addition, during 2010 (calendar year) and 2011, in excess of 2,000 audits have been undertaken in South Australia for non-concession card holders, over 5,000 audits have been undertaken in Victoria, and over 1,700 audits have been undertaken in New South Wales.

AGL has also taken a leadership role in improving the energy efficiency performance of business customers. AGL has a team of over 65 people across South Australia, Victoria, New South Wales, Queensland and the Australian Capital Territory who identify, evaluate and implement energy efficiency and embedded generation projects for business customers.

For example, in FY2011, AGL entered into an agreement to construct a state of the art cogeneration facility for Qenos Pty Limited (Qenos) at its Altona plant in Victoria. The facility represents Australia's largest industrial cogeneration plant to be built in a decade. At an approximate cost of \$45 million, the plant will have a nominal capacity of 21 MW and when coupled with a heat recovery steam generator, will produce up to 88 tonnes of steam per hour. The embedded cogeneration facility is expected to reduce greenhouse gas emissions associated with the production of polyethylene at the Qenos plant by  $100,000 \, \text{tCO}_2\text{e}$  per annum, the equivalent to  $24,390 \, \text{cars}$  off the road.

#### **Green products**

The Government-administered GreenPower™ program enables retailers to provide customers with electricity that is sourced from new renewable energy that is in addition to mandatory purchases required under the 20% Renewable Energy Target. Accredited GreenPower can only be produced from approved renewable generation facilities built after January 1997. AGL has been a participant in GreenPower since official accreditation commenced in 2001. AGL offers a suite of GreenPower products for residential customers that allows them to choose a product that meets their needs.

During the 12 months to 31 December 2010, AGL's sale of GreenPower accredited electricity was 188,472 MWh, a decrease of 23% compared to the prior corresponding period. However, AGL has significant new commercial and industrial contracts in place to retail over 1 TWh of new renewable energy annually.

#### Rooftop solar photovoltaic (PV)

During FY2011, AGL installed 1,736 roof-top solar PV systems through AGL Assist franchises and the Bovis Lend Lease partnership. Volatile solar policies and a fast moving industry landscape contributed to the lower than expected installation rates. Significant experience in the roof-top solar market was an invaluable by-product of these efforts.

AGL recently acquired Rezeko Pty Ltd, trading as EKO Energy, as a platform for the growth of market share in the solar PV market. Now with first-hand expertise in the industry, and the backing of Australia's leading renewable energy company, AGL Solar/EKO Energy will deliver quality solar solutions to Australian homes and businesses.



# **Customer experience**

# AGL's responsibilities as an essential service provider

The essential nature of the services and products provided by AGL requires a responsible approach to disconnection; sales and marketing; the provision of pertinent information to customers during critical events; and accessibility of information, including the availability of concessions.

### Wrongful disconnections

In all of the jurisdictions in which AGL retails energy, there are regulations governing the processes which must be followed when disconnecting a customer for non-payment of an account. In Victoria, energy legislation prohibits disconnection of residential customers other than in accordance with regulations, and retailers are required to pay customers \$250 per day for every day they are off supply after having been wrongfully disconnected. In FY2011, AGL wrongfully disconnected 144 customers in Victoria, the same number as in FY2010. Analysis has identified operator error as well as some process shortfalls as the major causes of wrongful disconnections. These issues will be addressed over the coming year through a number of process improvement projects. AGL remains committed to ensuring it fulfils all regulatory obligations, undertaking disconnection of a customer's supply as an absolute last resort.

AGL has now commenced detailed reporting on disconnections in other jurisdictions, to ensure a more robust approach to maintaining the appropriate checks and balances with respect to disconnection.

#### Responsible sales and marketing

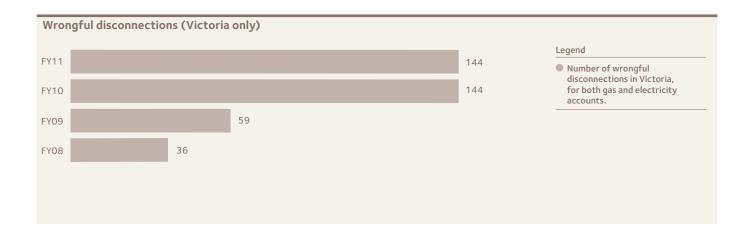
Throughout FY2011, AGL remained committed to improving the door-to-door sales experience that is delivered to customers. Building on the programs implemented in FY2010, the focus in the past 12 months has been on:

- > improving sales people's knowledge of legislative and regulatory requirements relating to telemarketing and door-to-door sales, with a view to improving compliance and ensuring that customers have a better understanding of the energy contract which they are entering into
- > implementing dedicated resourcing to audit operational and regulatory compliance. AGL was also involved in developing the new Energy Assured Ltd voluntary Code of Conduct (discussed further below)
- > conducting regular sales agent refresher training, for compliance and product familiarisation purposes.

All of these initiatives are focused on ensuring that current customers and potential customers understand the available choices with respect to energy retailers and energy products.

Customer complaints from the door-knocking channel have remained stable (1.12 complaints per 100 sales), despite an increasingly competitive market place.

AGL recognises that door-to-door sales are a sensitive issue for the community and, as such, AGL has been actively involved in the development of an industry Code of Conduct (the Code) for face-to-face marketing of energy contracts (to be independently managed by Energy Assured Ltd). The Code was established by the Energy Retailers' Association of Australia (of which AGL is a member), as a response to reductions in consumer confidence in the door-to-door sale of retail energy products across eastern Australia. It aims to ensure the highest standards in doorstep selling practices by energy sales people. Both energy retailers and marketers have voluntarily signed up to the Code and all door-to-door energy sales people are required to meet the Code's quality requirements. While recognising that door-to-door sales in energy is already heavily regulated and governed by the new Australian Consumer Laws, the Code aims to lift the bar further and ensure the strictest compliance and most ethical practices by sales agents that represent retailers at the door. In FY2012, AGL will work with its door-to-door selling partners to ensure that all aspects of the Code are adhered to.



# **Customer experience**

#### Response to critical events

AGL does not own or operate transmission or distribution networks (pipes, poles and wires), and therefore is not responsible for restoring energy supply during critical events where the energy supply to mass numbers of customers is interrupted. Notwithstanding this, AGL recognises the importance of responding to customers during these events.

In the wake of the Victorian Bushfires in 2009, AGL developed an extreme event response guide for the business to follow. The guide documents the actions AGL will undertake to provide assistance, support and peace of mind to AGL customers impacted by a severe external event.

Early in FY2011, significant numbers of AGL customers in Queensland, New South Wales and Victoria were impacted by severe weather events. In response, AGL undertook a number of actions, including:

- > suspension of all billing and collection activity in areas impacted by the flooding
- > updating the AGL website with important information for customers and encouraging customers to call if they were impacted
- > setting up processes to direct flood impacted victims to a dedicated section within AGL's hardship team
- > placing a series of advertisements in local and state based media advising customers what to do if they had issues with their energy accounts.

Several months after these events took place, AGL undertook a Post Implementation Review to understand and agree to identified process improvement for future critical events.

#### Accessibility

AGL continues to provide a free translator service so that customers are able to access important information on AGL's services and products, regardless of whether English is their primary language. In addition, AGL has energy efficiency brochures available for customers in 10 different community languages.

In FY2011, AGL has also had a team focused on delivering practical and positive solutions for customers who receive a government concession. It is important that customers receive entitlements with the minimum of fuss, which is why over the course of the year AGL has:

- > performed large scale data integrity activities to ensure all AGL customers who are entitled to a concession are receiving one
- > developed and implemented national training and concession 'champions' to ensure employees are fully aware of the concessions customers can receive
- > delivered the annual Victorian electricity concession to customers three months earlier than the government requested.

# **Customers in hardship**

### **Customers in hardship**

As an essential service provider, AGL recognises the importance of providing assistance to vulnerable customers to help them reach a sustainable energy position.

#### **Approach**

AGL supports the concept of a 'shared responsibility model' within the context of customer hardship, recognising the need for industry, government, and the community to work together in order to achieve the best possible outcomes for low-income and vulnerable customers. With energy prices continuing to rise (largely due to the costs involved with upgrading transmission and distribution infrastructure), AGL recognises that as a major retailer, it must contribute to ongoing debate on the most effective way to assist vulnerable customers.

To this end, in FY2011, AGL released a research paper examining increasing electricity costs in New South Wales and Queensland. The paper concluded that, in the absence of policy intervention, there is a real risk that a significant number of low-income households are likely to experience fuel poverty (that is, more than 10% of household income will be spent on energy) by 2015. Following the release of the paper, AGL and a range of nongovernment organisations and industry participants subsequently developed an industry policy blueprint for addressing rising power bills. Recommendations included the creation of a National Energy Hardship Committee to provide advice to government, and federally commissioned modelling to further identify the likely impact of increased electricity prices on low-income residential consumers.

Understanding that it is has a direct role to play in assisting hardship customers, AGL takes a multifaceted approach to the management of vulnerable customers, by:

- > providing an empathic and supportive environment in which customers feel confident to discuss their payment difficulties
- > learning from those who work directly with financially vulnerable consumers (for example, training in dealing with hardship customers is provided to frontline staff by Kildonan UnitingCare)
- > facilitating customer access to appropriate government and community support mechanisms.

AGL's hardship program, Staying Connected, has been assisting low-income and vulnerable customers since 2003. Staying Connected is designed to provide assistance to customers experiencing financial hardship whereby they are unable to make payments as required under AGL's standard credit guidelines. While participating in the program, customers are protected from disconnection, and are offered a range of services, including payment plans and home energy audits.

In FY2011, AGL introduced personalised case managers for all Staying Connected participants. This initiative has resulted in a greater rapport being established between the customer and the Staying Connected consultant, which has in turn led to an increased understanding of the customer's needs and a sense of mutual accountability. It has also enabled more frequent case reviews, facilitating early intervention measures where necessary. In addition, all customers on the Staying Connected program have individually tailored payment plans that give appropriate consideration to their capacity to pay. AGL focuses on encouraging the customer to work towards paying for ongoing consumption, so as to limit the potential for the customer to be placed on a payment plan which will ultimately see them going further into debt. Where appropriate, customers are also placed on incentive plans, whereby they receive a payment towards their account from AGL as a reward for good payment history.

In the coming year, AGL will continue to refine and review its approach to customer hardship and energy affordability, working with stakeholders to improve the service provided to hardship customers. AGL is concerned, however, that realistic expectations are set with respect to the extent to which retailers' hardship programs can assist customers facing long-term and chronic hardship. AGL will therefore continue to promote the 'shared responsibility' model in policy advocacy.

**Vision for customers in hardship:** AGL's vision is to be a recognised industry leader in customer hardship policy.



### Customers

# **Customers in hardship**

### **Performance**

At the end of the financial year<sup>1</sup>, 8,652 customers were participating in the Staying Connected program. This represents a decrease of 16.3% compared to the 10,343 customers participating in the previous year.

The average level of energy debt among Staying Connected participants at the end of FY2011<sup>1</sup> was \$1,658, up 20% from \$1,382 in FY2010.

While the success of the program depends on a range of complementary indicators, the average level of debt per customer is a critical measurement for Staying Connected. It assists in assessing AGL's degree of success in the early identification of customers who are currently experiencing hardship or who are vulnerable to hardship. It also allows AGL to measure the program's success in helping customers return to a sustainable energy consumption position.

Many customers with low levels of debt have successfully completed the program this year; however, this results in an increase in the average level of debt of those remaining on the program. By bringing customers onto the program earlier, while their debt levels are still relatively low, the average level of debt per customer will decline. Accordingly, in the coming year, AGL will continue to focus on staff training to ensure early identification of customers experiencing or likely to experience financial difficulty.

AGL uses a number of indicators to measure the success of Staying Connected, including the time it takes to return customers to a sustainable energy consumption position, and the number of times each participant has joined the Staying Connected program.

Of the Staying Connected participants as at 30 June 2011, 32.6% have been on the program for two or more years. Approximately 16.5% of Staying Connected participants were customers returning to the program.

AGL continues to offer Staying Connected participants energy efficiency advice and home energy consumption audits, which assist customers to return to sustainable energy consumption levels as well as a sustainable debt position. In Victoria and South Australia, AGL has maintained its long-term partnerships with Kildonan UnitingCare and Mission Australia and during FY2011, 879 audits were completed by these two community sector partners on behalf of AGL. In Queensland and New South Wales, AGL worked in partnership with the government funded home energy efficiency programs in those states, referring eligible customers for assistance.

### AGL Advocacy work

During FY2011, AGL continued to engage with customers and consumer representatives in order to foster open communication and mutual understanding and awareness. The AGL Customer Council continued to meet quarterly allowing an open dialogue on performance and policy between AGL and customer representatives.

AGL attended, and also presented at, numerous community sector forums across the country, providing information about the assistance offered to hardship customers by AGL and also gaining an understanding from the sector as to what they would like to see AGL do to improve customer service, particularly in relation to customers experiencing payment difficulties.

AGL also worked collaboratively with a number of community agencies to:

- > deliver practical information to newly arrived migrants on managing energy costs
- > host and run a forum in Queensland on energy affordability a broad discussion attended by the community sector, industry and government to improve assistance for vulnerable customers.

### Note

1 As at 2 July 2011.

### Number of years on Staying Connected program

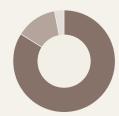




### Note

Data is based on Staying Connected population, as at 30 June 2011.

### **Staying Connected return customers**



# Legend First time Staying Connected customer 84% Return Staying Connected customer (second time) 13% Multiple Staying Connected customer 3%

### Note

Data is based on Staying Connected population, as at 30 June 2011.

# Introduction

# AGL's goal is to connect our business and employees with the community in ways which make a genuine positive contribution, engage our people and strengthen our business.

The success of AGL is measured not only by its financial performance, but also by the social and environmental impacts that company decisions and actions have on the wider community.

AGL has a responsibility to work with the community to develop mutually beneficial energy projects; and to sensitively manage the associated environmental, social and financial outcomes. Only by engaging communities during the entire project life-cycle is AGL able to achieve a 'social licence to operate', delivering projects while addressing community concerns.

The variable nature of AGL's development projects necessitates a tailored approach to community engagement based upon the needs of individual communities and projects. AGL aims to establish constructive working relationships and multidirectional communication channels with community stakeholders including: customers, government groups, asset owners, local community groups, indigenous groups, businesses, residents and local media. AGL also supports local communities through local sponsorships, providing financial and in-kind support for issues important to those communities.

To build upon engagement with the local communities in which AGL owns and/or operates assets, AGL's Energy for Life program seeks to make a genuine contribution to the wider community.

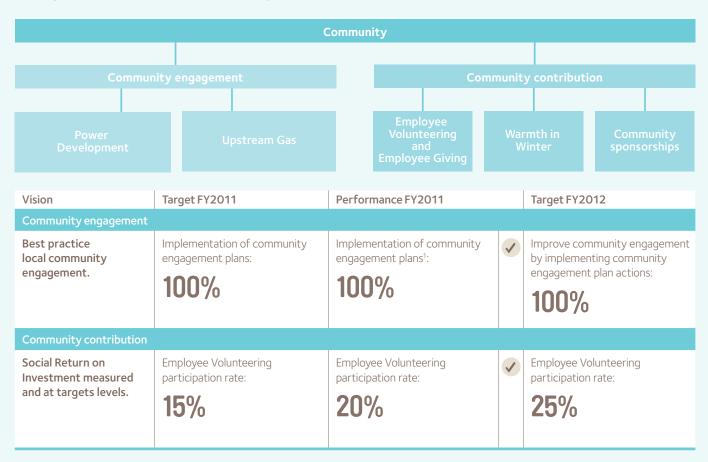
AGL is cognisant of the fact that some members of the community experiencing short- or long-term hardship may find it difficult to access essential services such as energy, or may be without a home. Homelessness is one of the main focus areas of the Energy for Life program, which is reflected across the program's three initiatives:

- > Employee Volunteering
- > Employee Giving
- > Warmth in Winter.

The two key focus areas for the Community chapter of this report are community engagement and community contribution.

**Community engagement:** Community consultation, as measured by the proportion of successfully implemented community engagement plans, is vital to the success of new developments, the expansion of existing infrastructure and ongoing operations.

**Community contribution:** AGL has an opportunity to positively contribute to local communities and community causes that reflect the interests of AGL employees. The success of AGL's community contribution program is measured by the level of community investment with a particular focus on investments which employees contribute to, namely Employee Volunteering and Employee Giving.



# Community engagement

### Introduction to community engagement

AGL has long recognised that to maintain its social licence to operate it must engage constructively with communities and all our stakeholders.

### **Approach**

AGL recognises that genuine engagement with stakeholders is essential for achieving sustainable development. As AGL continues to develop new power generation and coal seam gas production projects, AGL has an increasing physical footprint and presence in the community. Communities adjacent to AGL projects, and the broader community generally, have views and questions about how AGL's activities may interact with their way of life and livelihoods.

AGL is committed to listening, and providing comprehensive and accurate information to communities, as well as providing adequate opportunities for communities to give feedback and raise concerns. Community engagement mechanisms employed by AGL include community meetings, community consultative committees, newsletters and factsheets, websites/micro-sites, stalls and displays at community events, dedicated information centres, site visits, briefings and workshops.

AGL also supports regional communities, creates employment opportunities, provides facilities and enhances existing services, including health, education and welfare through contributions to local, regional and national economies. To complement engagement with the regional communities in which AGL owns and/or operates assets, AGL's Energy for Life program seeks to make a genuine contribution to the wider community page 42.

**Vision for community engagement:** AGL's vision is to achieve best practice local community engagement.

**Drivers:** Listening, understanding and responding to community concerns, effective communication and constructive community engagement across all Power Development projects (page 36) and Upstream Gas projects (page 39) is essential for maintaining AGL's social licence to operate.

### **Performance**

Community engagement plans are in place for all coal seam gas projects and all power development projects. The community engagement plans outline community engagement activities, define AGL's community engagement goals, and allow the tracking and measurement of success.

In May 2011, AGL opened the Hunter Customer Service and Community Information Centre to share information on coal seam gas operations in the area. AGL already has an information centre operating in Burra, South Australia, to provide information about the Hallett wind farm projects.

During FY2011, AGL developed a Corporate Community Engagement Framework and Toolkit, designed to facilitate a consistent yet customisable approach to setting Community Engagement Plans and measuring completion of actions embedded in these plans. The Framework and Toolkit were developed following consultation with business leaders and Project Managers from both AGL's Merchant Energy (Power Development) and Upstream Gas business areas. The Framework and Toolkit will further improve consistency in AGL's approach to engagement across the business.

The Safety, Sustainability and Corporate Responsibility Committee, which meets quarterly, visits AGL's operational and development sites to understand in greater detail the views of the local communities.

# Community engagement

### **Power Development**

AGL is a long-term owner/operator of electricity generation assets, including wind farms, hydro and other power stations, and is committed to being a valued member of the local community.

### **Approach**

The community is a key stakeholder in AGL's power development projects. AGL manages power development projects in accordance with a project management framework that addresses community consultation as an important part of the project communications plan.

AGL's approach to community engagement is based on the needs of the community and the nature of individual projects. AGL's Power Development group has established a Community Charter that publicly sets the objectives for community engagement for construction projects:

- > **Principle 1:** We will deliver on our promises to the community with actions, not words.
- > **Principle 2:** We will endeavour to respond to all gueries within five working days.
- > **Principle 3:** We may not be able to solve all perceived problems put to us, but we will investigate, aim to find a solution and communicate the outcomes.
- > Principle 4: We are committed to being a valuable member of the community by using our resources to build a stronger local
- > **Principle 5**: We will leave a positive legacy in the community that extends beyond the life of the project.

### **Performance**

AGL's Power Development construction projects are managed in accordance with a Project Management Framework which requires community engagement plans to be developed as part of the communication plan for each project. All Power Development construction projects that commenced during FY2011 have community engagement plans.

Power Development also undertakes the necessary community consultation on projects during development.

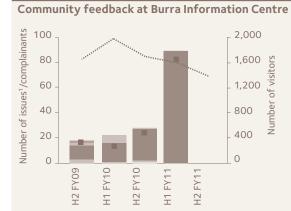
During FY2011, community stakeholders have continued to raise concerns about perceived adverse health effects of wind turbines.

In a public statement 'Wind Turbines and Health' the National Health and Medical Research Council<sup>1</sup>, Australia's peak health body concluded that there is no published scientific evidence to link wind turbines with adverse health effects. The Victorian Department of Health has also examined the available scientific literature on wind farms and supports the NHMRC, concluding that there are no direct health effects that can be attributed to modern wind turbines<sup>2</sup>. Overseas, the British Wind Energy Association<sup>3</sup> noted that despite over 100,000 turbines now installed globally there remains no peerreviewed evidence of any health concerns with wind turbines.

AGL will continue to monitor research in this area.

### Notes

- 1 nhmrc.gov.au/publications/synopses/new0048.htm
- 2 health.vic.gov.au/environment/community/windfarms.htm
- 3 bwea.com/pdf/wind\_turbine\_syndrome.pdf



### Legend

- Positive feedback
- Neutral feedback
- Negative feedback (interrupted TV reception)2
- Negative feedback (noise)
- Negative feedback (other) ■ Individual complainant
- -- Total visitors

- 1 Issues raised and noted in the community feedback register at Burra Information Centre are categorised and counted. However if an individual contacts AGL more than once on a specific issue (e.g. TV reception) they are listed as one complainant only and attributed to the half-year period where the issue was first raised.

  Timeline for the development of the satellite television project within the Hallett/Burra area:
- - > 5 Jan 2010: Digital television Australia wide media release.
  - > 20 Jan 2010: First satellite television installation complete.
  - > As at 30 June 2011, 186 orders were placed as part of the satellite television project. Of those orders, 170 installations were completed by end FY2011.

# Community engagement

### Hallett wind farms

With five wind farm projects situated in the Hallett region of South Australia, AGL has a significant presence in the local community. During FY2011, the AGL Hallett 1 Wind Farm, the AGL Hallett 2 Wind Farm and the AGL Hallett 4 Wind Farm were operational. In FY2011, the AGL Hallett 4 Wind Farm achieved practical completion and AGL commenced operation of the wind farm on 25 May 2011. Of the remaining two wind farms, the AGL Hallett 5 Wind Farm is under construction, due for completion in late 2011, while the AGL Hallett 3 Wind Farm is still in development.

The AGL Information Centre in Burra is recognised within the local community as the place to obtain information and provide feedback on the Hallett wind farm projects. Visitor numbers and feedback from the community received through this centre as well as other channels is measured. During FY2011:

- > over 2,900 people visited the Centre, compared to 3,600 in FY2010
- > a total of 89 concerns were raised by the community in FY2011, compared to 50 in FY2010
- > the only topic of concern raised by the community in the last 12 months was concern around television reception.

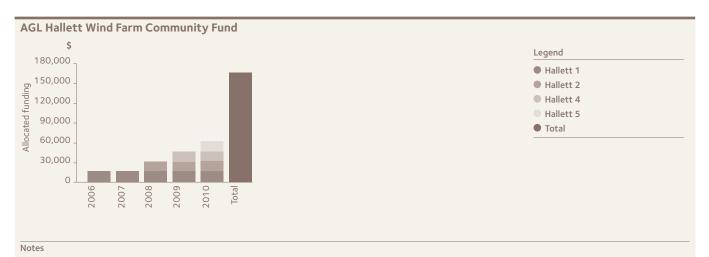
With the knowledge that television reception in the region is already marginal, and that the wind farms may cause further deterioration to some residents living near the wind farms, AGL commenced a community project to provide satellite services to any resident within a predefined area encompassing the wind farms. In FY2010 and FY2011, AGL funded installation of 170 satellite dishes and receivers to residents within the predefined area. Of the 89 complaints received during FY2011, all were received in the first half of the year, with no complaints received during the second half of FY2011. The increase and subsequent decrease in community complaints coincides with AGL's roll out of satellite television to Hallett residents within the region of the wind farms.

During FY2011, representatives from AGL and two partner companies involved in the construction of AGL's wind farm projects in the Hallett region participated in an Aboriginal Cultural Awareness Workshop, facilitated by two members of the Ngadjuri people. The workshop sought to move the relationship with the local aboriginal group beyond contracts and legislation. The workshop greatly improved the participant's awareness and understanding of the history of the indigenous population, both locally and in other parts of the country. By facilitating greater respect and appreciation for the local aboriginal culture, the Ngadjuri are hopeful that people who work and live in the area will be more willing to report archaeological sites that they may come across, thus preserving their cultural history.

### Hallett Wind Farm Community Fund

Through the AGL Hallett Wind Farm Community Fund, AGL is providing annual grants to local community based projects and groups. AGL will provide \$15,000 for each wind farm (following development approval) each year for the next 25 years, indexed at CPI.

Since the inception of the AGL Hallett Wind Farm Community Fund over \$170,000 has been donated to community organisations. In 2010 (calendar year) over \$62,000 in funds were distributed to a range of community projects, including: contributions towards an upgrade of Hallett/Mt Bryan Play Centre; an upgrade of the show hall floor for the Burra Show Society; the installation of a playground at Victoria Park in Jamestown; and replacement of a solar pool heater for the Jamestown Swimming Club.



Amounts are rounded down to the nearest \$100

Total committed funding for FY2010 was \$46,400. At the time of publishing the 2010 Sustainability Report an additional \$2,500 was earmarked for a particular community group, bringing the reported total to \$48,900. This additional \$2,500 was subsequently withdrawn.

# **Community engagement**

### **Macarthur Wind Farm**

In November 2010, AGL and joint venture partner Meridian Energy commenced construction of the 420 MW Macarthur Wind Farm in Western Victoria. The project is the largest wind farm in the Southern Hemisphere and when completed will consist of 140 wind turbines that will generate enough renewable energy to power the equivalent of 220,000 average Victorian households per year.

As part of the project AGL and Meridian have committed to contributing combined funding of \$100,000 to a Macarthur Wind Farm Community Fund. AGL is working with Moyne Shire to ensure that these contributions are allocated to the maximum benefit of the local community. During FY2011 funding applications were requested from local community groups, with the first tranche of funding worth \$40,000 expected to be released in September 2011.

The project is spending a significant amount of money on local road upgrades as part of community commitments and to support the construction process. An additional \$200,000 will be provided to Moyne Shire to assist with other road upgrades in the local area.

The Macarthur project is expected to create long-term employment opportunities and associated benefits for local businesses and services in the area. AGL estimates that up to 900 construction and manufacturing jobs will be created in the region. This includes up to 300 on-site jobs during the peak construction period, and up to 30 full-time ongoing operations and maintenance positions to service the wind farm during its 25 year design life.

### Oaklands Hill Wind Farm

In August 2010, AGL commenced construction of the 63 MW Oaklands Hill Wind Farm in western Victoria.

Located in the vicinity of the Grampians National Park, Oaklands Hill Wind Farm has been designed with turbines spaced between seven to twelve diameters apart (or approximately 600 to 1000 metres apart) – ensuring the wind farm blends into the context of the landscape.

As part of Oaklands Hill Wind Farm, AGL has established a community fund valued at \$50,000 to support local projects. Funding will be allocated through consultation, ranking and agreement with local recognised community associations. During FY2011 AGL committed funding to a number of community projects including a donation to the Glenthompson Country Fire Authority to obtain a new fire engine. AGL has also committed to provide funding and reuse steel from the wind farm construction to provide new lighting for the Lions Park netball courts in Glenthompson.

In addition to the community fund, each year for the next 25 years (commencing in 2010) AGL has committed \$10,000 towards enhancing Brolga Habitat and a further \$10,000 towards salinity management in the region.

AGL estimates that up to 160 construction crew will be on-site over the construction period, which will substantially boost the local economy with increased spending on local goods and services.

### Other projects

During FY2011, community consultation has also been undertaken as part of the development approval process for the following Power Development projects:

- > Tarrone Power Station, Victoria (gas fired)
- > Coopers Gap Wind Farm, Queensland
- > Dalton Power Station, New South Wales (gas fired)
- > AGL Hallett 3 Wind Farm, South Australia.

Information on each project is available on the AGL website at agl.com.au

# Community engagement

### **Upstream Gas**

AGL is committed to ensuring that coal seam gas exploration and production activities minimise impacts on the environment and the community, and can comfortably co-exist with other land uses, including residential, agriculture, tourism, viticulture and other industries. AGL recognises the importance of co-operative engagement with community stakeholders.

### **Approach**

To engage the community and effectively respond to community concerns, AGL consults with landowners, neighbours, residents, local councils and relevant government agencies during all stages of the project life-cycle.

Currently, only AGL's Camden Gas Project in New South Wales is in commercial production stage. AGL also operates coal seam gas exploration projects in Gloucester, Galilee and the Hunter Valley. AGL also operates conventional oil and gas assets in Silver Springs, and has two gas storage projects in development: the Silver Springs Underground Gas Storage Project, and the Newcastle Gas Storage Facility. In the Cooper Basin AGL is the operator for a large oil exploration permit, and holds geothermal permits in Victoria, New South Wales and Queensland.

AGL acknowledges the significant levels of concern in rural and regional communities surrounding the Australian coal seam gas industry, particularly in relation to issues such as land access and water resources. Over the past 12 months, misunderstanding about the nature of the Australian coal seam gas industry has led to wider unease in local communities. AGL believes that greater levels of community engagement can effectively address these concerns.

AGL respects the diverse range of views held by communities at each of its coal seam gas project sites. A critical part of AGL's exploration project development involves understanding community viewpoints and the concern which may understandably be present in a community which has not previously had exposure to coal seam gas exploration work.

AGL engages with local communities, providing them with a high level of information in relation to proposed and operating projects. AGL seeks to better understand the views of communities and ensures interested community members have access to relevant information through regular community meetings, drop-in sessions, field days, site visits, newsletters, newspaper advertising, email updates, Community Consultative Committees (CCC), and one-on-one conversations with stakeholders. Dedicated sections on AGL's website provide project information including meeting minutes and other relevant documentation such as Environmental Assessment reports.

The Camden, Gloucester and Hunter projects have active Community Consultation Committees, each chaired by an independent chairperson. The three CCCs include local council appointed representatives, local residents, local environment groups and AGL representatives. The CCCs provide a forum for community involvement, where members can ask questions and make suggestions which AGL responds to and adopts where appropriate. The CCCs participate in consultation processes for proposed exploration and development activities and also oversee the environmental performance of those activities once in operation.

AGL has established dedicated groundwater and surface water monitoring networks across its Gloucester, Hunter and Galilee exploration areas, and in the vicinity of its proposed natural gas storage facility at Tomago. Refer to page 82 for further information.

### **Performance**

Community engagement plans are in place and active for each of AGL's 10 Upstream Gas projects. The community engagement plans outline the key stakeholder groups that AGL will engage with during project development and operation, and the mechanisms for engagement. AGL will continue to work to enhance its community engagement on each of its coal seam gas projects.

During FY2011, AGL made a public submission to the NSW Government's Coal and Gas Strategy. In the submission AGL advocated for greater community consultation requirements, stronger water management regulation and a code of conduct to set minimum industry standards for projects in New South Wales.

### **Camden Gas Project**

The Camden Gas Project in the Macarthur region of New South Wales consists of low-pressure underground gas gathering lines and the Rosalind Park Gas Plant. As at end FY2011 there were 142 wells, of which 80 were operational and producing gas. During FY2011 the Spring Farm and Menangle Park expansion at the Camden project was progressively implemented.

AGL prepared and submitted an Environmental Assessment and a Development Application for the next phase of the Camden Gas Project, The Northern Expansion, to the NSW Department of Planning which was placed on public exhibition from October to December 2010. Community consultation regarding the proposed expansion included briefings for state and local government agencies, landowners and stakeholders through a program of meetings and workshops. Additionally, site tours of the existing Camden Gas Project have been conducted frequently for community members, and all key project stakeholders.

The Camden CCC met on five occasions during FY2011. During the financial year a community representative for the proposed Northern Expansion of the Camden Gas Project attended the CCC.

Issues raised by the Camden CCC during FY2011 included:

- > chemicals/additives used in coal seam fracture stimulation
- > risks associated with coal seam fracture stimulation process
- > ground and surface water impacts
- > appropriate consultation around Aboriginal artefacts and sacred sites
- > landholder consultation and compensation processes
- > noise and light limits and monitoring requirements
- > project development
- > environmental management and reporting.

Other key community engagement initiatives during FY2011 include AGL's participation in the Camden Show, which included an information tent and sponsorship. AGL also participated in community forums on coal seam gas, including a NSW Farmers' Federation forum and a coal seam gas forum organised by state MPs and the local community group, Scenic Hills Association.

# **Community engagement**

During FY2011, an incident relating to the release of soap mist from the Sugarloaf 3 gas well was reported in the media. In May 2011, an AGL gas operations team conducting routine maintenance at the Sugarloaf 3 gas well produced the soap mist when water, soap and air were pumped into the well to clean out debris. The majority of the mist released from the well dissipated on contact with air, while the rest fell within 40 metres of the well. The release was non-toxic, non-hazardous and biodegradable and did not pose a risk to the community, environment or local water supplies.

In response to the incident AGL undertook a number of actions including reporting it to the: Office of Environment and Heritage; Department of Trade and Investment, Regional Infrastructure and Services; Sydney Catchment Authority; and Department of Planning and Infrastructure. AGL also launched an internal investigation while informing local landowners and tenants. AGL submitted water and soil samples to an independent laboratory. The foam released caused no impact to the surrounding environment, according to the results provided by independent analysis performed by ALS Laboratories, a National Association of Testing Authorities' accredited laboratory.

AGL has actively engaged with the community on this issue to correct misunderstandings arising as a result of inaccurate media reporting of the incident.

### **Hunter Gas Project**

During FY2011, the Bulga CCC met on three occasions before the NSW Minister for Mineral Resources announced a review of the community consultative committee and subsequently dissolved the Bulga CCC in December 2010.

The Hunter CCC has replaced the Bulga CCC, and in January 2011 Mrs Margaret Macdonald-Hill, Executive Officer of the Association of Mining Related Councils, was appointed by the NSW Minister for Mineral and Forest Resources as the independent chairperson of the newly formed Hunter CCC. The Hunter CCC membership includes representatives from local government, business, agriculture, water, industry, tourism, Local Aboriginal Land Council, New South Wales Government, land owners, AGL and local interest groups. This broad membership also represents a wide geographical area. Each CCC member has been appointed to their position by the Minister for Resources and Energy, the Hon. Chris Hartcher. Participation in the group is voluntary.

Issues raised by the Bulga CCC during FY2011 included:

- > coexistence and operations in the vineyards
- > property prices and land values
- > chemicals/additives used in coal seam fracture stimulation
- > risks associated with coal seam fracture stimulation process
- > ground and surface water impacts and monitoring program
- > landholder consultation and compensation processes
- > project development
- > seismic survey
- > environmental management and reporting.

In May 2011, AGL opened the Hunter Customer Service and Information Centre in Singleton. The Information Centre provides the community with access to information on the Hunter Gas Project and AGL's other operations. The centre forms part of AGL's response to community concerns surrounding AGL's activity in the Hunter region. AGL's participation in the Broke Fair in the Hunter Valley is another key community engagement initiative undertaken during FY2011.

AGL is demonstrating the ability for coal seam gas exploration to coexist with agriculture in one of Australia's premier wine making regions through its purchase and ongoing operation of the Spring Mountain vineyard at Broke. During FY2011, the first AGL Spring Mountain vintage was produced. AGL is also demonstrating the ability for coal seam gas to co-exist with multiple land uses at AGL's Windermere property at Bulga, where during FY2011 cattle were being fattened and lucerne baled.

During the year, AGL also constructed mock well-heads at the Spring Mountain and Windermere properties. The aim of the mock well-heads is to demonstrate to interested stakeholders the very low surface impact and small area of a full production well site.

During FY2011, an incident involving the release of water at an AGL property in the Hunter was reported in the media. In July 2010 AGL released some groundwater into a paddock at one of its properties at Bulga, as part of its regional groundwater investigation program which involved the drilling of water monitoring bores.

Approximately 280,000 litres of groundwater was tankered from the site at that time, and approximately 120,000 litres was pumped from the drill site into a low lying depression within an adjacent paddock owned by AGL. All of this water was disposed of in accordance with AGL's water bore licence issued by the New South Wales Office of Water under the *Water Act 1912* (NSW).

The groundwater salinities varied between 9,000 EC and 10,600 EC (approximately 5,800 to 6,900 ppm salt). For comparison, the salinity of seawater is in the order of 55,000 EC (around 36,000 ppm salt).

### **Gloucester Gas Project**

The Gloucester CCC met on three occasions in FY2011. AGL is encouraged by the committee's continued request for meetings to be held only if there is something new to report, an indication that the CCC process has been effective. AGL also conducted three special workshops with the CCC during FY2011 to discuss the Gloucester Gas Project approval and to develop the community engagement plan. During the reporting period the membership of the CCC was expanded to include representatives from MidCoast Water.

# **Community engagement**

Issues raised by the Gloucester CCC during FY2011 included:

- > project approval conditions
- > stakeholder engagement
- > chemicals/additives used in coal seam fracture stimulation
- > risks associated with coal seam fracture stimulation process
- > ground and surface water impacts and monitoring program
- > irrigation trial
- > landholder consultation and compensation processes
- > seismic survey
- > noise and light limits and monitoring requirements
- > environmental management and reporting.

During FY2011. AGL participated in a community engagement forum on coal seam gas organised by the Barrington Gloucester Stroud Preservation Alliance. The forum allowed community stakeholders to discuss the project with AGL representatives.

AGL continued facilitating a youth development program at Gloucester during FY2011. The aim of the program is to mentor young people using community volunteers. During the reporting period AGL facilitated the training of suitable mentors, and worked with Gloucester High School. The independent steering team comprises the high school deputy principal, a Neighbourhood Centre youth coordinator, two representatives from the Gloucester Project with significant experience in assisting people with learning disabilities, and two AGL representatives. During FY2011 AGL also provided support to the local branch of the Westpac Rescue Helicopter support group and sponsorship for a number of community events, including the Gloucester Show, Gloucester High School and Gloucester Junior Cattle Show.

In late FY2011, the Environmental Defender's Office, representing the Barrington Gloucester Stroud Preservation Alliance, lodged an appeal against the project approval for AGL's Gloucester Gas Project. The approval for the Gloucester project was granted by the NSW Independent Planning Assessment Commission in March 2011. The appeal is currently ongoing in the Land and Environment Court.

### **Galilee Gas Project**

AGL is the operator of the Galilee Gas Project, a 50/50 coal seam gas exploration joint venture with Galilee Energy Ltd. During FY2011 AGL communicated regularly with key individual and community stakeholders, including local and state governments, and landowners.

AGL and Galilee Energy Ltd are both members of the Galilee Basin Operators' Forum (GBOF) a group of coal seam gas operators in the Galilee Basin. In November 2010 the GBOF engaged leading independent environmental consultancy RPS to research and prepare a baseline water assessment report for development of a regional Galilee Basin aquifer model. Following completion, the report will be provided to the Queensland Water Commission, and will inform a regional understanding of aquifers and bore water supplies at this early stage of petroleum exploration in the Galilee Basin.

In October 2010, in line with AGL's comprehensive weed management processes, AGL responded quickly to the detection of weeds on a property where AGL operates a pilot program and immediately sprayed and removed the plants. The landowner and relevant authorities were also notified. As an additional security measure preventative spraying was conducted again in January and May 2011, after the wet season. During this preventative

spraying AGL did not directly notify the adjacent landowner that road easement through his property was also sprayed. AGL has since apologised to the landowner and made changes to procedures so that this is avoided in the future.

During FY2011, AGL and joint venture partner Galilee Energy Ltd contributed \$18,000 towards the purchase of a weed misting unit. The unit will be used by the Desert Channels Queensland community group to conduct a series of weed misting trials on local properties with the aim of providing effective and cost-efficient management of 'Prickly Acacia'. The trial results will be shared amongst landholders and Landcare group members.

Other community initiatives during FY2011 as part of the Galilee Gas Project included engagement of local cultural heritage groups to complete cultural assessments, and the sponsorship of the Landsborough Flock Ewe Show.

### Silver Springs Underground Gas Storage Project

In October 2010, AGL acquired Mosaic Oil NL through a Scheme of Arrangement. In addition to permits for conventional oil and gas exploration and production, the acquired assets of Mosaic included the depleted Silver Springs/Renlim gas fields located in the Surat Basin in central Queensland which AGL intend to utilise to develop an underground gas storage system.

In May 2011, AGL provided \$5,000 to sponsor a business launch for the Mandandanji, a cultural heritage group in the Surat region. The Mandandanji Group have previously had a third party manage and coordinate cultural service requirements from industry. The Mandandanji Group have now formed their own company to manage business activities and invited industry and the community to the launch.

During the Queensland floods a number of AGL staff from the Silver Springs Plant provided community assistance (detailed on page 44).

### Other projects

In FY2011, AGL submitted an Environmental Assessment to the NSW Department of Planning for the proposed Newcastle Gas Storage Facility Project at Tomago. During the financial year, community consultation for the project included the public exhibition of the environmental assessment and a number of community information sessions. During FY2011 AGL consulted with local stakeholders who have community leadership in restoration and habitat protection including the Hunter Botanic Gardens at Tomago, the Native Animal Trust and the Port Stephens Council Koala Steering team to develop long-term sustainable community partnership programs.

AGL plans to develop up to 700 MW of additional peaking generation at Torrens Island and a gas storage facility. As part of the Torrens Island Energy Park project, AGL contributed over \$20,000 for the repatriation of the remains of 68 Kaurna ancestors during FY2011. Through the support provided by AGL Energy, the Kaurna people have been able to reclaim the remains held by the South Australian Museum, gain permission from the Australian Director of National Parks for the reburial of the Kaurna ancestral remains within the Torrens Island Conservation Park, hold cultural ceremonies on Torrens Island and record the event in a documentary.

# **Community contribution**

### Introduction to community contribution

Contributing to the communities in which AGL operates and the communities in which AGL employees live and work brings benefits to both AGL and the community.

Communities benefit from the receipt of in-kind and financial support, and AGL and its people benefit through improvements to employee engagement that can come from Employee Volunteering and Employee Giving initiatives and from strengthening relationships with the community.

### **Approach**

AGL contributes to the community through a variety of localised initiatives in the regions where it operates (such the AGL Hallett Wind Farm Community Fund in South Australia), and also contributes to the wider community through the Energy for Life program.

Rigorous measurement and reporting of community investment activities can help ensure AGL's resources are allocated efficiently to maximise the benefits to the community.

AGL is a founding member of the London Benchmarking Group Australia/New Zealand (LBG) and has been measuring and reporting the value of contributions to the community using the LBG model since FY2006.

The LBG model is an independent framework for measuring, benchmarking and reporting a company's community contributions and achievements, and provides a consistent approach for organisations to account for their community contributions.

The LBG framework breaks down community contribution by charitable cause (i.e. social welfare, environment, emergency relief, health or other), as well as by motivation for investment (i.e. charitable donation, community investment or commercial initiative).

AGL also breaks down its community contribution according to the three Energy for Life program areas (Employee Volunteering, Employee Giving and Warmth in Winter), as well as the support provided to the local community through the AGL Hallett Wind Farm Community Fund and other local community initiatives, contributions arising from key brand sponsorships, and donations for disaster relief.

LBG is facilitated in Australia by Haystac Positive Outcomes (a division of Mitchell Communications Group). Haystac Positive Outcomes conducts an annual review of how AGL values community contributions using the methodology established by the LBG. A review statement from Haystac Positive Outcomes is included on page 90.

In recognition of the contribution employees make to AGL's level of total community investment, a key measure of success is the value of the community contribution (as measured through the LBG model) arising from employee participation in Employee Volunteering and Employee Giving initiatives. The success of these programs is also measured through employee participation indicators (page 44).

**Vision for community contribution:** AGL's vision is to have social return on investment measured, and at target levels.

**Drivers:** The success of AGL's community contribution is influenced by engaging employees in the Employee Volunteering and Employee Giving initiatives (page 44), and by developing strategic charitable programs and partnerships that leverage the skills and strengths of AGL and its employees (page 45).

# **Community contribution**

### **Performance**

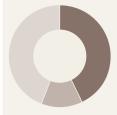
Using the LBG model, AGL's total community investment (including cash, staff volunteering and in kind contributions) in FY2011 has been valued at over \$1,575,300. Compared to the previous year the total community investment by AGL has remained relatively stable, with \$1,665,6001 invested in FY2010.

The value of AGL community contributions made through Employee Giving (AGL matching component only) and Employee Volunteering amounts to over \$196,700 for FY2011.

### Note

1 Total value of investment rounded to nearest hundred.

### Community contribution by motivation for investment<sup>1</sup>

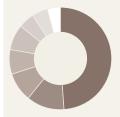


Legend Charitable donation 43% Community investment 13% Commercial initiative Total value of investment<sup>2</sup> \$1,575,300

### Notes

- 1 The motivation types recognised by the LBG framework comprise:
- Charitable donation If the contribution is made out of a sense of moral responsibility or in response to society's expectations.
   Community investment If the contribution was made out of a belief that companies have a long-term interest in fostering a healthy community in which they operate. This is often considered enlightened self-interest.
- Commercial initiative If the contribution is part of a program that is designed to provide direct benefits to the Company, including stronger brand image, increased profitability, reduced costs and improved customer loyalty.
- 2 Total value of investment rounded to nearest hundred.

### Community contribution by Energy for Life program area<sup>1</sup>

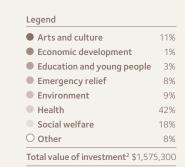


### Leaend Sponsorships 49% Warmth in Winter 12% Local community initiatives Employee Volunteering 8% Donations – disaster relief Donations – other 5% **Employee Giving and** events matching<sup>2</sup> O Hallett Wind Farm Fund

Total value of investment<sup>3</sup> \$1,575,300

### Community contribution by charitable cause<sup>1</sup>





### Notes

- 1 Represents the community contribution as split between the various AGL programs.
- 2 As per the LBG model, this represents AGL's matched funding only, not the
- 3 Total value of investment rounded to nearest hundred.

### Notes

- Represents the value of AGL's community contribution by subject focus (charitable cause) as defined by the LBG model.
- 2 Total value of investment rounded to nearest hundred

# **Community contribution**

### **Employee Volunteering and Employee Giving**

AGL provides the means and opportunity for employees to make a genuine contribution to the community – by volunteering time and/or by providing direct financial support to causes that reflect their interests.

### **Employee Volunteering**

AGL's Employee Volunteering program gives all employees the opportunity to take one day of paid volunteering leave each year to support community causes and charitable organisations.

As well as delivering social outcomes for the community, volunteering provides business benefits to AGL – by engaging employees, promoting teamwork and building morale.

AGL provides the flexibility for employees to take volunteering leave in a variety of ways including team projects, pursuing individual interests, and participating in AGL-led initiatives. Volunteering activities undertaken during FY2011 ranged from revegetating part of the Victorian coastline in conjunction with Bayside City Council, to repairing the houses of families affected by the Black Saturday bushfires in Victoria. A number of AGL employees also volunteered with relief operations for the Queensland floods during late 2010 and early 2011, including assisting a local SES group to deliver food to stranded farms, using an AGL crane to load and transport people's belongings in Surat, and building a flood levy at St George.

AGL set a target to achieve a 15% participation rate (by headcount) for Employee Volunteering in FY2011, and exceeded this target with 20% of the workforce recording a Volunteering leave day. During FY2011, 416 employees contributed 3,180 hours of service to community services and organisations. Compared to the 2,008 hours of volunteering leave recorded in FY2010 this represents an increase of 58%. For FY2012 AGL has set a target to achieve 25% of the workforce (by headcount) recording a volunteering leave day.

The 3,180 hours of volunteering leave taken in FY2011 has been valued at over \$115,000.

### **Employee Giving**

AGL employees can elect to make regular payroll contributions to selected charity partners through the Employee Giving initiative. AGL enables employees to double the impact of financial contributions to these charitable organisations by matching each employee contribution to a total maximum of \$200,000 per year.

AGL's 10 charity partners are the Australian Marine Wildlife Research and Rescue Organisation, beyondblue, Cancer Council Australia, CanTeen, CARE Australia, Habitat for Humanity Australia, Kids Helpline, RSPCA, The Salvation Army and WWF-Australia.

During FY2011, the average monthly participation rate in Employee Giving was 7.5%, a slight decrease compared to the FY2010 rate of 7.8%. Donations to AGL's 10 charity partners through Employee Giving totalled over \$119,000 in FY2011 (including employee donations and AGL's matched contribution), a slight increase from FY2010, when over \$117,000 was donated.

In addition to funds raised through payroll giving in FY2011, an additional \$35,000 (including AGL matching) was raised through fundraising activities organised by employees for AGL Employee Giving charity partners.

In late 2010 and early 2011, there was a significant response by AGL employees and AGL to the Queensland floods. AGL employees donated approximately \$24,500 to The Salvation Army disaster relief fund, with AGL matching this amount dollar for dollar. AGL also contributed \$50,000 to both The Salvation Army Queensland Flood Relief and the Premier's Disaster Relief Appeal, bringing the total contributions by AGL employees and AGL to the Queensland floods to almost \$150,000.







- 1 Participation rates are determined by comparing the total number of employees that recorded a volunteering leave each financial year with the total number of employees (by headcount) as at 30 June in the corresponding year.
- Average participation rate by companies in the 2010 LBG Australia and NZ Energy and Water Sector.

### Notes

- 1 Average monthly participation.
- 2 Includes AGL matching.
- 3 Average participation rate by companies in the 2010 LBG Australia and NZ Energy and Water Sector

# **Community contribution**

### Warmth in Winter

As an energy company committed to encouraging energy efficiency across the community, AGL places a special emphasis on assisting vulnerable Australians by pursuing initiatives that deliver sustainable change.

### Warmth in Winter

AGL's Warmth in Winter initiative seeks to make a practical contribution to support homeless Australians by inviting crisis accommodation services to apply for a cash rebate, based on their previous year's winter energy bills.

The energy bill rebates provided by AGL allow these community organisations to redirect funds to other essential services that directly benefit their clients.

In FY2011, AGL contributed \$190,000 to the energy bills of 262 crisis accommodation services across 94 charity organisations in Australia, a significant increase compared to FY2010 when almost \$150,000 was contributed. This funding is equivalent to providing over 126,000 warm winter nights for homeless Australians, an increase of nearly 12% compared to the 112,000 warm winter nights funded in FY2010.

The proportion of the winter energy bills funded for each successful applicant varied from 34% to 94%, depending on a range of factors including any previous funding received by the applicant and the dollar value of the organisation's energy bills.

AGL's Warmth in Winter initiative also includes an energy audit component, whereby AGL undertakes an energy audit of a select number of crisis accommodation services, with the aim of delivering sustainable change for these organisations by reducing future energy costs. AGL also purchases efficient appliances for the audited organisations to further improve their energy savings. While no audits were completed during FY2011, planning is underway for the audit of three facilities during FY2012.

# **Community contribution**

### **Community sponsorships**

AGL sponsors key events in local communities to build stronger relationships with the communities in which AGL operates.

### Kiewa area sponsorships

AGL has significant operations in the Victorian Alpine Region with four hydro electric power stations as part of the Kiewa scheme, including the Bogong Power Station. AGL is also a large employer in the region with almost 70 employees (by headcount) based at AGL's Mt Beauty office.

In FY2011, AGL sponsored the Audax Alpine Classic road cycling event for the third consecutive year. This event takes place in the surrounds of Bright in regional Victoria. The ride is made possible due to AGL having upgraded the Bogong High Plains Road as part of the construction of the 140 MW hydro electric Bogong Power Station in FY2009 and FY2010.

During FY2011, AGL also sponsored the Kangaroo Hoppet in the Bogong High Plains of Victoria's Alpine National Park. The Kangaroo Hoppet is Australia's premier long distance cross country ski race.

### **AGL Action Rescue Helicopter**

Since FY2009, AGL has sponsored the Sunshine Coast Helicopter Rescue Service to help ongoing vital rescue, medical and search missions throughout south-east and central Queensland. AGL provides the Service with regular funding for ongoing operations, and enables Queensland-based customers to donate to the Service through their AGL account. This donation facility was set up by AGL in 2007 prior to the official sponsorship. During FY2011, AGL customers in Queensland contributed over \$270,000.

### Other sponsorships

In FY2010, AGL entered into a four-year sponsorship of the Giant Panda exhibit at Adelaide Zoo in South Australia. In FY2010, AGL installed a solar PV system for the panda enclosure. The system will generate 50% of the energy required for the exhibit and will reduce carbon emissions by 14.4 tonnes of  $\rm CO_2e$  annually. AGL also provided an LCD information and educational screen in the exhibit detailing how solar power works.

In conjunction with the Heritage Council of Victoria, the Melbourne Restoration Fund and public donations, AGL assisted in the restoration of the iconic 'Skipping Girl' neon display in Melbourne in late FY2009. AGL is supplying 100% GreenPower Accredited Renewable Energy and annual maintenance funding as part of a five-year sponsorship.

### Wind farm community funds

In the Hallett region of South Australia, AGL has established the AGL Hallett Wind Farm Community Fund to provide annual grants to local community based projects. Over \$170,000 has been donated to the community since the fund's inception.

AGL has also established community funds for:

- > Macarthur Wind Farm
- > Oaklands Hill Wind Farm.

Refer to pages 37 and 38 for further information.

# **Introduction**

# AGL's goal is to engage our employees in ways that continue to support our business, grow their skills and deliver outstanding results in a safe and sustainable way.

Employees are critical to the delivery of AGL's business strategies, and to achieving the organisation's vision of being a world-class, customer-focused energy company. It is important to create a safe and engaged work environment where employees can contribute to delivering a positive customer experience.

The AGL Values that underpin business at AGL are:

- > One Team
- > Delivery
- > Authentic
- > Vitality
- > Safe and Sustainable.

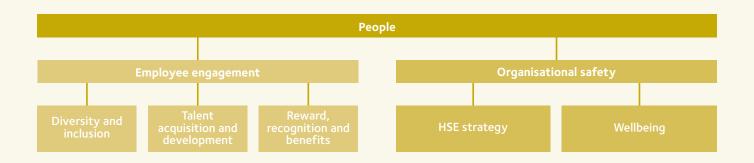
The way in which employees live these values shapes the perception of the AGL brand, as well as influencing stakeholders' day-to-day experiences and interactions with AGL.

A safe and secure work environment is a key element of AGL's strategy. AGL has adopted a broad view of workplace health and safety, encompassing not only the physical safety of employees, but also the overall health of employees in terms of financial, emotional, creative and social wellbeing.

The two key focus areas for the People chapter of this report are employee engagement and organisational safety.

**Employee engagement:** In the context of a rapidly changing energy industry, maintaining and improving employee engagement is increasingly important for attracting and retaining talented employees, and ultimately, for the delivery of business results.

**Organisational safety:** Safety performance is indicative of the values that underpin an organisation, the business 'culture', and the effectiveness of health and safety policies and procedures. Safety performance is also a significant influencing factor for employee engagement.



Vision	Target FY2011	Performance FY2011		Target FY2012	
Employee engagement					
Engagement score at 'best employer' level.	Engagement score: 65%	Engagement score <sup>1</sup> :  8% point decrease	X	Engagement score:  8% point increase	
Organisational safety					
Zero harm.	Total Injury Frequency Rate:  2.5	Total Injury Frequency Rate: <b>5.0</b>	X	Total Injury Frequency Rate: <b>4.0</b>	

<sup>1</sup> Engagement survey undertaken during June and July 2011 with an overall response rate of 73.5%.

# **Employee engagement**

### Introduction to employee engagement

Employee engagement measures the degree to which employees are emotionally connected and committed to the company they work for, and is a core metric for measuring the health and success of the organisation.

### Approach

AGL undertakes the annual AGL Engagement Survey to understand how engaged employees are by measuring key drivers that are important to them such as employment experience, career opportunities, company reputation, change management, customer focus, safety and diversity.

The survey is administered by Aon Hewitt, an external and independent provider. Organisations that achieve engagement scores greater than 65% are defined by Aon Hewitt as being in the 'best employer'/high performance zone.

Being a 'best employer' will assist AGL in becoming more effective in attracting and retaining the best talent. Research also shows that organisations scoring in the 'best employer' zone generally enjoy superior business results, with a significant impact on total shareholder return.

AGL uses the results from the engagement survey to formulate action plans to address the key opportunities to drive an improvement in employee engagement.

**Vision for employee engagement:** AGL's vision is to have an engagement score within the 'best employer' range (i.e. minimum of 65%).

**Drivers:** Improving performance in key areas such as diversity and inclusion (page 49), talent acquisition and development (page 51), and reward and recognition (page 53), will influence the engagement of employees over the long term. Safety (pages 56 to 59) also has a strong influence on engagement.

### **Performance**

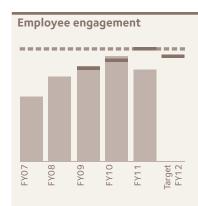
AGL set a target to increase engagement to 65%, but fell short of this target with a decrease of eight percentage points compared to the FY2010 score. Even though AGL is tracking closely to the Aon Hewitt Australian Energy and Utilities benchmark of 55%, overall employee engagement remains within the 'indifferent' zone (as defined by Aon Hewitt). A number of individual business units are tracking within the 'best employer' zone.

The 2011 AGL Engagement Survey was completed during June and July 2011, following a period of significant organisational change that was undertaken to position AGL for long-term profitable growth. Regrettably, the organisational changes resulted in a number of positions being made redundant across the business. Employee engagement fell in some parts of the business most affected by the changes.

Engagement scores declined in the Merchant Energy and Upstream Gas business units. However, despite the overall decrease, Retail Energy sustained engagement levels in a number of areas, and improvements to engagement also occurred in the Information Systems Group and Customer Operations business unit, which had the lowest engagement in FY2010.

For FY2012, AGL is targeting a minimum increase in engagement of eight percentage points to regain the engagement levels recorded in FY2010. To improve engagement, Aon Hewitt has recommended a continued focus on improvement strategies in the areas of managing change, clarifying career paths, delivering on promises made to new employees, as well as targeting groups such as leaders in the middle ranks and specific locations where engagement is particularly low.

Employee engagement scores are used as a key performance indicator in senior managers' Performance and Development Review. Operational leaders and employees are measured on their contribution to specific engagement action plans that have been agreed in their business units and other activities that aim to positively impact on engagement.



### Legend

Engagement score

Target

Aon Hewitt 'Best Employer' Zone > 65%

### Note

The FY2011 survey was conducted in June and July 2011 with an overall response rate of 73.5%.

# **Employee engagement**

### **Diversity and inclusion**

AGL values the diversity in its workforce, and recognises that diversity is supported and enhanced by an inclusive workplace culture.

### **Approach**

An inclusive workplace, where all employees feel safe and confident to contribute their ideas and perspectives, facilitates more creative, innovative and effective solutions for achieving AGL's business objectives.

A diverse workforce and an inclusive workplace culture are attractive to potential employees and provide AGL with an edge when competing for talent and in retaining talented people. A diverse workforce, with its broad range of experience and perspectives, also has a better opportunity to understand and engage AGL's customer base and the communities in which it operates.

AGL's Diversity Strategy comprises the following components:

- > AGL Diversity and Inclusion Council (chaired by the Managing Director)
- > AGL Ethics Panel
- > AGL Code of Conduct and AGL Values
- > Diversity and Inclusion Policy
- > issues resolution AGL Ethics Line; Workplace Issues Resolution Guidelines, Employee Assistance Program
- > education and training (induction and refresher training)
- > metrics and performance tracking.

The focus areas for AGL's Diversity and Inclusion Council for FY2011 were women in the workplace, carers' needs and an inclusive workplace culture. A priority for the Diversity and Inclusion Council has also been the early adoption of the Australian Securities Exchange (ASX) Corporate Governance Principles in relation to gender diversity.

### Women in the workplace

AGL monitors gender diversity at each level of the organisation and, in particular, the representation of women in leadership. AGL faces similar challenges to other Australian organisations in retaining and realising the potential of its female leaders who have the capability and aspiration to move into senior leadership positions.

Of the leaders at AGL, 33% (FTE basis) are female (unchanged from FY2010), which is lower than the overall proportion of women in AGL's workforce (45%).

AGL continues to monitor gender pay equity through various forums including the Diversity and Inclusion Council and the People and Performance sub-committee of the Board. AGL's most recent pay equity analysis was completed in December 2010. AGL's gender pay gap was below the Australian benchmark pay gap of 17.3% at the same time in all but one employee grouping (the senior management group). This year AGL has focused on embedding pay equity analytics into the remuneration review system. The system identifies and highlights potential instances of gender pay inequity to leaders as they are confirming pay decisions.

AGL is responding as an early adopter of the new diversity requirements in the ASX Corporate Governance Principles and Recommendations. In accordance with the new requirements, AGL's Board has set measurable objectives for achieving gender diversity. AGL has reported against the new recommendations in its 2011 Annual Report.

In November 2010, AGL held its inaugural senior women's conference. This conference was attended by over 90 women from across the business and provided information, skills and networking opportunities to advance women's careers.

During FY2011, AGL submitted its annual report to the Equal Opportunity in the Workplace Agency and for the second consecutive year was commended on the level of analysis and progress made in understanding diversity issues at AGL. AGL remains compliant with the *Equal Opportunity for Women in the Workplace Act 1999* (Cth).

In March 2011, AGL's Diversity and Inclusion Council agreed to make significant enhancements to AGL's parental leave offering to position AGL amongst best practice organisations. These enhancements include an increase in paid parental leave from 12 to 14 weeks with leave extended to the primary care giver (whether male or female). Paid partner leave (concurrent leave) was also extended to two weeks (previously one week). Employees have the opportunity to take paid parental leave and paid partner leave in a flexible way, to meet their individual circumstances. AGL's paid parental leave is available to employees in addition to any paid parental leave to which they are entitled under the Australian Government Paid Parental Leave scheme.

During the reporting period, 51 women were due to come back from maternity leave. Of these 17 (33%) returned to full-time employment, 15 (29%) returned to work on a part-time basis, and 19 (37%) chose not to return to work (up from 22% in FY2010).

In the coming year, AGL will be looking at solutions to increase retention of women who take parental leave, with particular focus on staying in touch with women who are on leave, and support for and successful on-boarding of women after their leave.

# **Employee engagement**

### Inclusive workplace

AGL recognises that all people working in, or visiting, AGL workplaces have the right to be treated with respect and fairness and to enjoy an environment free of discrimination, harassment, bullying and other unlawful behaviour. This is a key characteristic of an inclusive workplace.

AGL launched its Diversity and Inclusion Policy in September 2010. This new policy covers rights and obligations of employees and leaders under state and federal anti-discrimination and occupational health and safety legislation.

To complement the new policy, AGL revised its online Diversity and Inclusion Induction and Refresher Training and launched this in February 2011. This new, broader program includes concepts related to building an inclusive workplace culture together with legal obligations.

AGL encourages employees to speak up about unacceptable and unlawful behaviour, and commits to resolve issues effectively and as quickly as possible. During FY2011, AGL addressed six issues relating to unacceptable behaviour in the workplace (compared to 10 issues in FY2010). Two of these issues were substantiated following investigation in accordance with AGL's Workplace Issues Resolution Guidelines, and disciplinary action, in the form of a formal warning, was taken in both cases.

AGL's Ethics Panel continues to support the Diversity Policy Framework as a forum for addressing systemic issues related to employee behaviour in the context of the AGL Code of Conduct. The independent Ethics Panel member provides an Ethics Line service, acting as a last resort contact point for potential breaches of the Code and to investigate matters in an impartial and independent manner.

### Flexible working arrangements

The AGL Engagement Survey conducted during June and July 2011 included questions targeting carer's needs and workplace flexibility. Employees were asked what kind of carer's responsibilities they had and to what extent they made use of the flexible work arrangements available in AGL.

Of AGL's employees, 39% identify as having carer's responsibilities with 16% of employees caring for children under school age, 20% caring for children at school and 1% caring for children with a disability. Some employees also identified themselves as carers of spouses/partners who are ill or have a disability (3%) or carers of parents who are ill or have a disability (4%).

The take-up rate of flexible work arrangements remains consistent with the results from the flexibility survey AGL undertook in FY2010

During 2011, AGL conducted a series of employee focus groups to gain an understanding of employees' experiences in utilising the Parental Leave Policy. Feedback indicated that the Parental Leave Policy was easy to understand and utilise, but that access to flexible work arrangements after returning from parental leave varied by business area. The new Parental Leave Policy delivers greater flexibility for people taking parental leave. Over the next year, AGL will develop solutions that provide better access to flexible working arrangements for people when they return from parental leave.

In November 2010, AGL introduced a Purchased Leave Policy. The Policy provides employees with the opportunity to purchase up to two weeks additional leave each year. 154 employees were approved for Purchased Leave this year, representing 7.5% of AGL's employees (by headcount).

# Flexible work arrangements Flexible work arrangements Part-time Job share Flexible start/finish times Compressed working hours Working from home/telecommuting Have not used flexible work arrangements Percentage of employees using flexible work arrangements 6% 6% 6% 6% 4% Flexible start/finish times 26% 4% 59%

# **Employee engagement**

### Talent acquisition and development

Attracting and retaining the right people, and developing their skills and talents, is one of the most critical challenges and opportunities AGL faces in meeting its strategic objectives.

The 'war for talent' in the energy sector presents a strategic opportunity and threat for AGL. The energy industry is rapidly changing due to government deregulation, climate change policies and the development of renewable energy technology. Having the right people with the right skills in place will be a key enabler for AGL in responding to these challenges.

### Talent acquisition

The strength of a good employer brand lies in the ability to attract the right people with the right skills who are the right fit for the business. The business benefits through decreased attrition rates, and customers benefit by dealing with enthusiastic and engaged employees. In turn, a positive customer experience is reflected in AGL's bottom line and in shareholder value.

AGL offers a work environment which is stimulating, collaborative and productive. AGL also supports the aspirations of employees who seek to develop their careers at AGL – whether moving up through leadership roles in the organisation or by expanding their skills and experience as specialists in their chosen field.

During the reporting period, AGL completed a program of internal and external research to define the AGL Employment Value Proposition (EVP) and the AGL employer brand. In October 2010, AGL launched its new employer branding strap line 'Expect More. Do More'. The AGL EVP describes the unique and compelling rewards and benefits (tangible and intangible) offered by AGL, in return for the skills, capabilities and experiences that employees bring to AGL.

To communicate the EVP to prospective and current employees, AGL launched new Careers pages on the AGL website. This includes career stories and video content from a number of AGL employees describing in their own words the reasons they joined and have stayed with AGL. A nine minute EVP video was also produced and loaded onto YouTube to act as a 'viral' campaign. AGL has been nominated as a finalist for 'Best Careers Website' for the 2011 Fairfax Employment Marketing Awards.

In FY2010, AGL piloted a new recruitment delivery model within the Customer Services area. This new model represents a significant change in talent acquisition strategy, effectively bringing the function on-site to ensure a robust recruitment process, improved sourcing strategies, consistent communication of AGL's EVP and creating an enhanced candidate experience which positively impacts company reputation. Following a reduction in the turnover of new hires in Customer Services from 47.2% in calendar year 2009 to 30.6% in calendar year 2010, AGL will be expanding the new model across the entire business, commencing October 2011.

### Talent management

The 2011 AGL Talent Management Program was enhanced to include a focus on identifying 'critical roles'. These are roles that, if vacant, pose the most significant business risk because they are key to AGL's new business development, revenue generation or operational management. Typically critical roles are difficult to fill quickly with either an external hire or a ready internal successor.

To ensure the sustainability of AGL's most critical business functions, it is now a requirement that all senior critical roles have a succession plan in place so ensure that there is a pipeline of key talent being actively developed in the capability areas required for role success.

### Induction

AGL runs a structured induction program for new employees, which includes an information pack, eight compulsory compliance training modules (which must be completed within the first month of joining AGL), and a Corporate Welcome Day. During FY2011, 479 new employees attended an AGL Corporate Welcome Day.

Providing adequate learning and development opportunities is critical for ensuring that customer service employees deliver a quality customer experience. All new hires in customer service roles receive a thorough three-week induction in relevant processes, systems and service skills prior to any customer contact. Training to develop the competence and confidence of customer services employees is also provided when new process and system enhancements are introduced, to minimise the risk of service levels being impacted during change.

### **Compliance training Completion Rate Compliance Area** Induction course<sup>1</sup> Refresher course<sup>2</sup> Code of Conduct 88% 81% Diversity and Inclusion 84% 79% Health, Safety and Environment 85% Just launched Information Security 85% 69% Just launched Privacy 74% 82% Trade Practices Act 76% To be launched Sep 2011

### Note

- 1 Induction course completion rate based on new starters who completed training during FY2011, i.e. prior to 1 July 2011 (by headcount). New starters are given six weeks to complete training, as such completion rates are underestimated.
- 2 Refresher course completion rate based on continuing employees who have been with AGL for longer than 12 months, i.e. prior to 1 July 2010 (by headcount). Continuing employees are given three months to complete training.

# **Employee engagement**

### Learning and development

AGL's online learning platform, Empower, provides a central portal for the delivery of compliance training and offers employees improved access to learning and development opportunities. In FY2011 AGL launched refresher training modules for the Code of Conduct, Diversity and Inclusion, Information Security and Risk compliance areas.

During FY2011, AGL also continued to deliver and enhance its leadership development programs, as outlined in the table on page 51.

### Turnover

Total turnover, which includes voluntary and involuntary turnover, for FY2011 was 28.6%, an increase from 26.4% in FY2010. The increase is a consequence of higher involuntary turnover arising from organisational change programs which were implemented through the period. Voluntary turnover (or attrition) decreased to 18.1% in FY2011, from 18.9 % in FY2010.

Voluntary turnover is highest in AGL's Canberra and Adelaide call centres¹ and there has been a slight improvement in each centre with turnover running at 35% and 21% respectively (38% and 24% respectively in FY2010). Voluntary turnover broken down by age and gender is highest for women under the age of 30 at a rate of 32%. The voluntary turnover rate for women under 30 in the Adelaide call centre is 44.8% (up from 32.8% in FY2010) and 33.0% in Canberra (down from 38.1% in FY2010).

### Note

Statistics for South Australia include Adelaide call centre and Torrens Island Power Station (TIPS). Voluntary turnover at TIPS is relatively stable (2.3% in FY2011), therefore South Australian voluntary turnover statistics are most heavily influenced by the Adelaide call centre.

### Leadership training and development programs Program FY11 participation rate Leadership Foundations One-day introduction for leaders new to AGL or those newly promoted to leadership roles. 56 leaders Mt Eliza Business School Academy Customised AGL residential program to develop 50 leaders experienced leaders' skills and prepare them for greater responsibility. AGL Frontline Leadership Diploma Provides frontline leaders with the knowledge and 21 leaders graduated skills to achieve better performance and increased productivity at the organisational level. 16 additional leaders commenced AGL Frontline Leadership Diploma for Emerging Frontline Adapted from the AGL Frontline Leadership 8 frontline leaders commenced Diploma, this program aims to develop existing senior technicians in AGL's Energy Services business Leaders (pilot) for future leadership roles AGL Advanced Diploma of Management for Leaders/ 12 leaders commenced This program provides an accredited professional development program for leaders and specialists and abridge to / from the AGL Academy. Provides direct feedback and follow-up coaching on 120 leaders 360 degree feedback program for leaders how leaders are perceived by their key stakeholders in relation to the AGL Values and the AGL Leadership Capabilities Framework. 180 degree self leadership feedback program for Customer Service Specialists and Customer Service This program targets current and emerging team 379 employees leaders in AGL's Customer Service business. It provides direct feedback on how leaders are perceived by their key stakeholders in relation to the AGL Values and the Representatives AĞL Self-Leadership Capabilities Framework



### Legend

- Total turnover
- Voluntary turnover (attrition)

### Notes

- 1 Total number of departures per FTE (full-time equivalent).
- 2 In FY2011, voluntary and involuntary turnover is a percentage of FTE as at 30 June 2011. Prior to FY2011, turnover is a percentage of the relevant 12 month average FTE.

# **Employee engagement**

### Reward, recognition and benefits

Providing clear expectations and recognising and rewarding performance and contribution to the business is motivating for employees and critical to achieving AGL's goals and targets.

### **Performance Development Review process**

AGL's Performance Management Cycle is an important process for creating a high performance organisation, where people take accountability for delivering results and for building the capability needed to progress their careers in AGL.

AGL's Performance and Development Review (PDR) process is used to measure and manage employee performance. The PDR process incorporates measurable objectives, regular (at least monthly) one-to-one conversations between leaders and employees, mid-year and full-year performance reviews, career development planning and stakeholder feedback.

The PDR delivers on AGL's commitment to provide all employees with clarity about what is expected of them, and links reward and recognition of employees' performance and contribution to the business in a transparent and equitable manner.

To increase the transparency of the PDR process, a company-wide calibration process is undertaken to ensure that performance ratings are applied consistently and equitably.

To ensure employees' efforts are aligned to strategic goals, mandatory objectives are developed and cascaded through the executive team to other layers of leadership (where relevant). The mandatory objectives for FY2011 included: specified financial targets; health, safety and environment targets (including lead and lag indicators); and employee engagement targets.

### Career development

The results of the 2011 AGL Engagement Survey indicate that career development continues to be a key driver for attracting, engaging and retaining employees. Recent research into AGL's Employment Value Proposition has placed career development in the top three drivers for why people seek to join and stay with AGL, ahead of remuneration and benefits.

In the context of a rapidly changing energy industry, being able to offer attractive and challenging careers is critical to attracting and retaining talented employees, and ultimately, to the delivery of business results.

At AGL career management is a series of activities and experiences that contributes to job enrichment, satisfaction, growth and success over the course of a person's working life.

Recently AGL launched a Career Management Framework. AGL's Career Management Framework is composed of five career factors that need to come together to deliver an employee's long-term career growth. This framework helps leaders in their discussions about employees' career development strengths, gaps and potential career moves, as well as projects or experiences that may be needed for their development.

In addition to the new Career Development Framework, there are a range of processes and offerings that enable employees to realise their career aspirations in AGL:

- > Career Development Plan
- > promotion of internal job opportunities
- > career development workshops
- > talent management
- > assisted Education program
- > leadership development
- > personal development.

The focus for FY2012 will be promoting, embedding and integrating the new AGL Career Management Framework with other career tools and learning programs.

### **Assisted Education program**

AGL supports employees completing formal qualifications at secondary and tertiary level through the Assisted Education program. This program supports employees financially and by allowing time off work to study. In FY2011, AGL provided \$238,672 in financial support to employees on the program, compared to \$203,000 in FY2010.

# **Employee engagement**

### Reward and recognition

Remuneration is a core driver for employees. AGL regularly benchmarks key roles against external market data to check that remuneration policies are effective in attracting and retaining the right people. Generally total remuneration is targeted within the 50th to 75th percentile market range.

AGL's remuneration system includes a short- and long-term incentive program for senior managers and a short-term incentive for middle and emerging leaders, with payment of the incentive based on achieving a combination of company and individual targets. Currently, 47% of AGL's employees (983 people) are eligible to participate in short-term incentive programs, and 1% of employees (22 people) are eligible to participate in long-term incentive programs.

All employees (with the exception of defined senior executives, and employees with less than 12 months of service) are eligible to participate in the Share Reward Plan, under which employees are invited to take up ownership of up to \$1,000 of AGL shares at no personal cost, subject to AGL achieving specific business outcomes. These business outcomes include improvement in customer satisfaction, financial growth and achievement of Health, Safety and Environment Action Plan requirements. 77% of employees (1,579 people) were invited to participate in the Share Reward Plan in FY2011. As a result of partial achievement of these business outcomes, the Board awarded \$700 of AGL shares to eligible employees (to be paid in FY2012).

The Customer Service incentive program has both short- and long-term components. Performance is assessed against a monthly scorecard and a short-term incentive is paid to the top 30% of performers each month. The top 30% of performers nationally who achieve a Performance and Development Review (PDR) rating of three or higher at the end of the PDR cycle are also eligible for an annual incentive. In addition, the incentive plan for employees at the Torrens Island Power Station who are employed under an Enterprise Bargaining Agreement has been changed to include the payment of a discretionary bonus for performance against PDR objectives in addition to the previous payment for overall power station performance.

### **Employee benefits**

### AGL offers:

- > 14 weeks paid parental leave (with flexibility to take this leave at half pay over 28 weeks)
- > two weeks paid partner leave
- > option to take paid parental leave and paid partner leave on a flexible basis
- > purchased leave
- > 25% employee discount on AGL energy usage and service charges
- > up to two years salary continuance income protection in the event of an illness or injury
- > financial and study leave support for employees pursuing further study through the Assisted Education program
- > access to a counselling service for employees and their families
- > volunteering leave (Employee Volunteering)
- > AGL matched charity giving program (Employee Giving)
- > wellbeing program
- > flexible work options
- > discounted health insurance.

# **Employee engagement**

### Additional people data

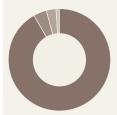
At 30 June 2011, AGL had a total of 2,083 employees corresponding to 2,031 full-time equivalent (FTE) employees. This compares to 2,126 employees (2,078 FTE) at the end of FY2010.

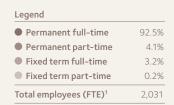


### Note

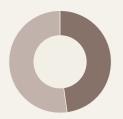
1 Includes fixed term, permanent full-time, and permanent part-time employees on a full-time equivalent (FTE) basis as at 30 June 2011. Excludes casuals, labour hire and contract workers.

### **Employees by employment status**





### **Employees by contract type**



Legend	
<ul><li>Awarded</li></ul>	48%
<ul><li>Salaried</li></ul>	52%
Total employees (FTE) <sup>1</sup>	2,031

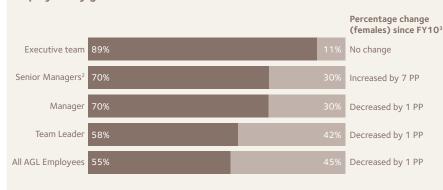
### Note

1 Includes fixed term, permanent full-time, and permanent part-time employees on a full-time equivalent (FTE) basis as at 30 June 2011. Excludes casuals, labour hire and contract workers.

### Note

1 Includes fixed term, permanent full-time, and permanent part-time employees on a full-time equivalent (FTE) basis as at 30 June 2011. Excludes casuals, labour hire and contract workers.

### Employees by gender<sup>1</sup>



### Legend

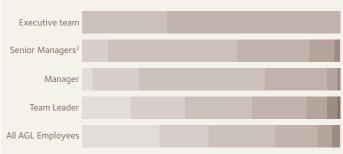
Males

Females

### Notes

- 1 Includes fixed term, permanent full-time, and permanent part-time employees on a full-time equivalent (FTE) basis as at 30 June 2011. Excludes casuals, labour hire and contract workers.
- 2 Senior Managers refers to General Managers and Head of Functions.
- 3 PP = Percentage points

### Employees by age<sup>1</sup>



### Legend

Under 30

■ 30-34

35-44

**45-54** 

**55-59** 

● 60-64

65 and over

### Notes

- 1 Includes fixed term, permanent full-time, and permanent part-time employees on a full-time equivalent (FTE) basis as at 30 June 2011. Excludes casuals, labour hire and contract workers.
- 2 Senior Managers refers to General Managers and Head of Functions.

# **Organisational safety**

### Safety performance

Safety is one of the core values underpinning AGL's business. Health and safety considerations are integrated into all business decisions and processes.

### **Approach**

Safety has continued to be a key priority for AGL in FY2011 across all levels of the organisation. Safety performance is regularly monitored at the AGL Board level through the quarterly meetings of the Safety, Sustainability and Corporate Responsibility Committee, and by the executive team. Safety performance is also reviewed in leadership and team meetings across the business.

A health, safety and environmental (HSE) management system (known as 'Life Guard'), documents AGL's framework of policies, standards, guidelines and management practices for consistent and continuous improvement in health, safety and environment performance, and is a key element of ensuring compliance with HSE legislation.

AGL's HSE Strategy and annual HSE Action Plans are built on four cornerstones which are: leadership, systematic approach, continually building an active HSE culture, and safe workplaces and equipment.

Further details on the implementation of the AGL HSE Strategy can be found on page 58.

AGL assesses workplace risks in consultation with employees and, where appropriate, independent external advisors, and manages these risks by identifying and implementing suitable controls. HSE risks are managed as a component of organisation-wide risks, using the Fully Integrated Risk Management approach. Some of AGL's HSE risks include: contact with fixed or moving plant and equipment; slips/trips; psychological injury; collisions with moving objects; flammable gas; electricity; and customer contact hazards in the retail business.

**Vision for organisational safety:** AGL's vision is to have zero harm.

**Drivers:** Safety performance is driven by a systematic approach to safety strategy, and a workplace culture that actively embraces safety as a core business value (page 58). Employee wellbeing (page 59), and employee engagement (page 48) are also key drivers of safety performance.

### **Performance**

AGL measures and tracks safety performance, using a number of trailing performance indicators, based on reported safety incidents.

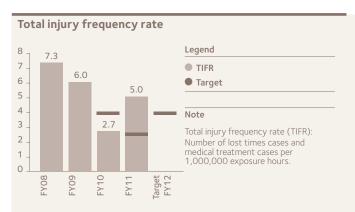
### Total injury frequency rate (TIFR)

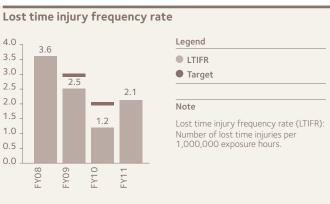
In FY2011, AGL's TIFR increased to 5.0, compared to 2.7 in FY2010. Disappointingly, the target of achieving a TIFR of 2.5 for FY2011 was not met.

The factors contributing to the increase in TIFR, include:

- > an increase in injuries in employees aged over 45
- > an increase in injuries resulting from falls at the same level, ergonomic injuries or being hit by a moving object
- > injuries occurring in businesses that have been recently acquired by AGL
- > the impact of change across the organisation.

For FY2012, AGL has set a TIFR target of 4.0, to continue the long-term decrease in TIFR towards AGL's vision of zero harm.





# Organisational safety

### Other performance indicators

### Lost time injury frequency rate (LTIFR)

AGL's LTIFR in FY2011 increased to 2.1, compared to 1.2 in FY2010. There was not a specific target set for LTIFR performance in FY2011, as LTIFR is already a component of the TIFR target.

### Medical treatment injury frequency rate (MTIFR)

MTIFR increased in FY2011 to 2.9, compared to 1.5 in FY2010. There were 12 medical treatment injuries during FY2011 (FY2010: six).

### **Fatalities**

In FY2011 there were no fatalities.

### Severity rate

In addition to safety indicators that track the frequency of incidents, the tracking and reporting of the lost time injury severity rate provides a measure of the impact of lost time injuries, by looking at the amount of time lost, rather than only the frequency at which incidents occur.

The severity rate has increased slightly in FY2011 to 35.0, compared to 34.6 in FY2010. This figure reflects two long-term injuries that required the employees to be away from work for over three months.

### Incidents

At AGL an incident is defined as anything that did or could result in an injury or illness to any person, damage to plant, an adverse affect to AGL's reputation or damage to the environment. As such, incidents include potential incidents or 'near misses'. AGL also measures 'significant' incidents. These are near misses which had high potential risk.

The number of significant incidents reported has increased during FY2011 to 36, compared to 27 in FY2010. A large part of this increase can be attributed to improved processes for reporting incidents, and increased awareness by employees of identifying and reporting issues posing a high risk to safety.

There has been an increase in the number of high potential risk incidents involving work around electricity. In response to these incidents, an electrical safety audit has been conducted by an external consultant, with the recommendations from that audit to be implemented during FY2012. An Electrical Safety Working Group, consisting of specialist representatives from across AGL, has been formed to review AGL's HSE management system in relation to electrical safety.

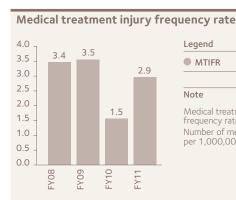
During FY2012, AGL will focus on consolidating risk information from across the business, improving the timeliness of incident investigations, and sharing the learnings from high potential risk incidents throughout AGL.

### Contractor safety performance

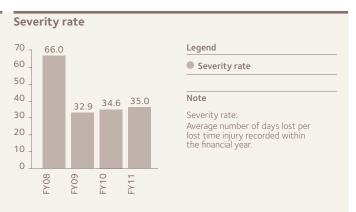
AGL monitors and reports the LTIFR of contractors, to provide a more comprehensive representation of AGL's safety performance. In FY2011 the LTIFR for contracted workers<sup>1</sup> was 1.7, which compares favourably to the LTIFR of 2.1 for AGL employees.

### Note

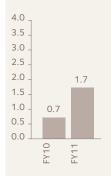
1 The LTIFR is based on contracted hours submitted by business leaders.







### Contractor lost time injury frequency rate<sup>1,2</sup>



Legend	
• LTIFR	
Notes	
1 Lost time injury frequency rate (LTJER): Number of lost time injury	ıries

1 Lost time injury frequency rate (LTIFR): Number of lost time injuries per 1,000,000 exposure hours.

2 The LTIFR for contractors is based on contracted hours submitted by business leaders.

### **Fatalities**

Year	Number
FY11	0
FY10	0
FY09	0
FY08	0

# Organisational safety

### **HSE Strategy**

AGL's strategy for managing safety is based upon the premise that all injuries are preventable.

Keeping AGL employees, contractors and the community safe is essential to the way AGL does business. The AGL Health, Safety and Environmental (HSE) Strategy provides the framework to drive change in HSE culture and performance, assisting AGL in achieving its goal of being a safe and sustainable business.

The HSE Strategy is built on four cornerstones which are:

- > a systematic approach
- > leadership
- > an active HSE culture
- > safe workplaces and equipment.

The HSE Strategy is enabled through the delivery of the annual HSE Action Plans, and measured through HSE monthly performance reports.

### Systematic approach

AGL's HSE management system, Life Guard, is based on the requirements of AS/NZS 4801 (2001): Occupational Health and Safety Management Systems; and AS/NZS ISO 14001 (2004): Environmental Management Systems.

Internal and external audits of the Life Guard system facilitate a culture of continuous improvement. Audit findings are reflected in both local action plans and improvements to the management system, strategic direction and safety programs.

In FY2011, external audits of the Life Guard management system were carried out at 15 AGL sites covering all business units. During FY2012, AGL will be focusing on developing and implementing action plans to respond to the auditors' recommendations. In particular, these will focus on addressing findings related to high risk tasks carried out in the Merchant Energy and Upstream Gas business units, especially with plant and equipment, and consolidating the documentation of workplace procedures. AGL also conducted a gap analysis of the AGL HSE Management System compared to the requirements of the 'harmonised' Workplace Health and Safety Regulations in preparation for enactment of the regulations in January 2012. Priority areas requiring action to comply with the new legislation have been identified, and the HSE team are working with the business units to ensure changes are implemented by January 2012.

AGL has annual HSE Action Plans in each business unit, tailored to deliver improvements for specific risk areas. During FY2011 AGL completed 100% of the actions in each HSE Action Plan, delivering improvements in AGL's systems for managing the safety of contractors; Permit to Work procedures; processes for managing safety and environmental incidents; safety leadership among senior managers; and risk management.

### Leadership

Strong and dedicated safety leadership is a cornerstone requirement for achieving a 'zero-harm' work environment at AGL. An effective safety culture requires commitment, accountability and continuous reinforcement from all levels of management, including the AGL Board.

The AGL Board and executive team review safety performance via the monthly Group Performance Report. The Board Safety, Sustainability and Corporate Responsibility Committee also reviews safety performance on a quarterly basis, as well as reviewing audit findings and recommendations, strategic priorities and incident performance.

Following the successful implementation of a HSE Council in the Merchant Energy business unit in FY2010, a similar group has been set up in the Upstream Gas business unit to monitor HSE performance and delivery of HSE Action Plans by management. This committee consists of 11 management and employee members as well as representatives from the HSE team.

In FY2011, dedicated safety leadership training was implemented in the Retail business, Information Systems Group and Corporate business units to further develop skills in this area. This training was attended by 43 senior managers. A pilot of safety leadership training was also delivered in the Merchant Energy business unit. A rollout of safety leadership training will commence for managers in this business unit in FY2012.

### Active HSE culture

Improving the safety culture at AGL continued to be a focus during FY2011.

The undertaking of 'safety and wellbeing conversations' is an initiative to encourage leaders to engage directly with employees in a discussion of safety behaviour, with a view to preventing unsafe behaviour. Safety and wellbeing conversations are a process of observing people as they work, and subsequently engaging them in discussion to reinforce safe and healthy behaviour and to understand the reasons for, and change, unsafe or unhealthy behaviour. During FY2011, AGL recorded 842 safety and wellbeing conversations across the entire business, and trained 64 leaders in the safety and wellbeing conversation process.

The results of the 2011 AGL Engagement Survey indicate the importance of safety and safety culture at AGL. The majority of respondents (89%) agreed that workplace safety and security was viewed as important at AGL, while 93% stated that they would speak up if they noticed someone taking shortcuts that compromised safety.

New employees and contractors are introduced to the safety culture at AGL through the delivery of induction and HSE management system (Life Guard) training. AGL's online induction program was completed by 513 new employees, transferees and contractors as at 30 June 2011. There were 150 leaders who completed Life Guard training during FY2011.

### Workplaces and equipment

In addition to managing HSE systems, safety culture and leadership, the physical risks present in AGL work environments are assessed and managed continuously.

HSE consultation committees and representatives are an important link in engaging with employees on matters relating to safety, health and the environment; and in delivering the HSE Strategy.

During FY2011 AGL continued to consult with employees on HSE issues with 69 employee representatives on the nine HSE Committees, covering AGL's 2,083 employees (headcount basis).

The HSE committees discuss, among other topics, the potential risks present in workplaces and the safe use of equipment.

# Organisational safety

### Wellbeing

AGL supports the wellbeing and good health of its people through a range of initiatives, and recognises the influence that employee wellbeing can have on employee engagement and on achieving a high performance culture.

### **Approach**

AGL has taken an organisational approach that recognises and actively promotes the value of good health and wellbeing, and deploys initiatives aimed at maintaining and enhancing the wellbeing of AGL people.

AGL's wellbeing framework during FY2011 incorporated five key wellbeing areas:

- > physical
- > emotional
- > social
- > financial
- > creative.

Wellbeing initiatives were delivered under each of the five key wellbeing areas, ranging from financial learning programs, fitness programs and influenza vaccinations; to social and book clubs; and the provision of fresh fruit in the workplace.

In FY2011, AGL undertook a comprehensive benchmark study of the management of employees' emotional wellbeing, in order to prevent psychological-related injuries. Initiatives to address the recommendations of this study will be implemented in FY2012.

The Employee Assistance Program is another component of the wellbeing program, and offers a confidential and independent counselling and advice service for AGL employees and their immediate family members.

A leader hotline is also available through the Employee Assistance Program, providing AGL leaders with access to support and coaching on people management issues. This telephone-based service is designed to assist leaders to proactively address issues within the early stages of an issue being identified.

### **Performance**

During FY2011, there were 3,876 participants in the various Wellbeing initiatives. This means that on average, the majority of AGL employees participated in two Wellbeing activities throughout the year.

### Wellbeing activity FY10 participation rate (of FTE)<sup>1</sup> FY11 participation rate (of FTE) Employee Assistance Program 7% 9% Book Club<sup>2</sup> 32% 18% Fruit at Work<sup>3</sup> 45% 73%

### Money 1014 69% 11% 38% 41% Influenza vaccination (seasonal program) 36% 26% Summer Step Challenge Wellbeing Online 32% N/A

- 1 Participation rates for 1 July to 30 June, based on full-time equivalent (FTE) as at 30 June.
- 2 Based on the number of employee orders placed over the year

Wellbeing programs and participation rates

- 3 Fruit baskets ordered for teams equivalent to 45% and 73% of FTE in FY2010 and FY2011 respectively.
- 4 Calculated from total number of logons to Money 101.

# Introduction

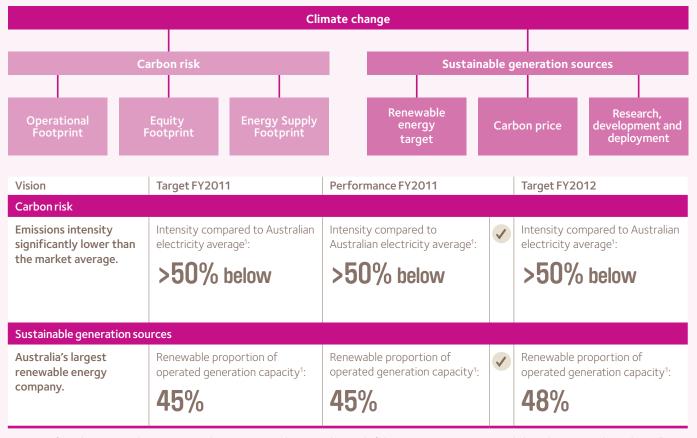
# AGL's goal is to invest in cleaner energy forms to reduce the greenhouse gas intensity of energy across the supply chain.

AGL supports bi-partisan political support for reductions in emissions of greenhouse gases consistent with Australia playing its part in stabilising global greenhouse gas atmospheric concentrations at levels below 450 parts per million by mid-century. The stationary energy supply sector will require significant decarbonisation. As a leading investor in the sector that accounts for approximately 40% of Australia's greenhouse gas emissions, carbon reduction targets pose both risks and opportunities for AGL.

The two key focus areas for the Climate change chapter of this report are carbon risk and sustainable generation sources.

**Carbon risk:** Risks to AGL presented by climate change mitigation policies (e.g. carbon pricing) could become significant over time. To pre-emptively manage these risks and work towards minimising exposure, the emissions-intensity of electricity generated by AGL is included as a key performance indicator. Underpinning this indicator is a range of strategies, including preparing for the introduction of a carbon price. AGL's greenhouse footprint is also included in this section of the report.

**Sustainable generation sources:** The opportunities for AGL in cementing a leadership position in low-greenhouse gas emitting energy generation and supply are significant. AGL continues to be Australia's leading investor in renewable energy, leveraging off existing policies and positioning the company for future value realisation as the costs of carbon become accounted for in the energy supply chain.



<sup>1</sup> Figures refer to the capacity and/or sent-out greenhouse gas intensity (scope 1 and scope 2) of electricity generation assets over which AGL has operational control, regardless of who owns the asset. Assets where AGL has rights to the electricity output only are not included. Australia-wide scope 2 greenhouse gas emissions intensity figure is from the National Greenhouse Accounts Factors published by the Department of Climate Change and Energy Efficiency, July 2011 (latest estimate is 0.91 tCO<sub>2</sub>e/MWh).

# Introduction

### Climate change risks

Climate change and climate change mitigation policies, such as carbon pricing, bring a number of risks to AGL's operations and investment strategy.

Extreme weather events and changes in weather patterns present risks to AGL's business, in terms of physical impacts to energy infrastructure as well as financial risks associated with changes in energy demand.

### Categories of climate change risk

### **Energy demand**

Demand for electricity in Australia is correlated to both economic growth and temperature. As the economy grows, so does demand for energy. As temperatures rise, so too does the demand for electricity because of higher utilisation of air conditioning. Wholesale electricity prices at peak demand times can often increase by several thousand percent. Electricity demand is likely to become peakier with increased summer air conditioning load. Peakier characteristics of the electricity sector require retailers and integrated energy companies such as AGL to devote significant resources to managing price volatility. AGL's recent acquisitions and investments demonstrate strategic efforts to manage price volatility. These commercial risks are being managed by consistently updating forecasts of energy demand based upon the latest temperature and other weather data; and investing in assets that provide profitable solutions, such as gas and hydro peaking generation and gas storage capabilities.

### Physical risks to infrastructure

AGL owns a number of power stations and gas production assets in the eastern states of Australia. The risks to AGL include both physical damage and reduced supply reliability. Physical damage could result from extreme weather events and bushfires which may reduce operating capacity. In turn, reduced supply reliability could potentially impact AGL's ability to cost-effectively supply retail customers. AGL has examined the proximity of its assets to coastlines and does not believe that sea level rise poses a significant threat.

### Water availability risks

AGL owns a number of hydro electricity generation assets. When these assets were acquired, a key element of the due diligence work undertaken involved long-term hydrology considerations. AGL engaged experts in this field and considered the risks associated with reduced rainfall and changes in rainfall patterns.

### Regulatory risks

AGL has identified climate change, and the changing regulatory, economic and social environment impacts associated with the introduction of a carbon price, as a key risk.

### Customer

AGL seeks to help its customers use energy more efficiently to lower their energy costs and to reduce their own greenhouse gas emission footprints. The Energy Services business unit provides strategic consulting advice on climate change risks/opportunities to customers, implements projects that reduce a customer's carbon footprint, and assists in managing exposure to increased costs related to climate change policy responses. Preparatory work undertaken in the latter half of last decade advising customers of the need to understand energy efficiency opportunities is beginning to lead to significant project opportunities. AGL has published research for use by customers to understand their exposure to carbon pricing impacts. This research has a 'checklist' for companies to utilise to understand how carbon pricing will impact on their bottom line. Working with customers in this way is critical to AGL's long-term success.

### Actions taken in FY2011 to address climate change risks

### Vulnerability assessment of electricity assets

AGL has continued to update physical vulnerability assessments of critical infrastructure. This ongoing assessment is based on key Australian publications by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Bureau of Meteorology (BOM).

The CSIRO/BOM report in February 2010 concluded that:

- > Australia may become hotter in coming decades: Australian average temperatures could rise by between 0.6 and 1.5 °C by 2030. Warming would be lower near the coast and in Tasmania and higher in central and north-western Australia. These changes would be experienced through an increase in the number of hot days.
- > Much of Australia may become drier in coming decades:
  Compared to the period 1981–2000, rainfall may decrease in southern areas of Australia during winter, in southern and eastern areas during spring, and in south-west Western Australia during autumn. An increase in the number of dry days is expected across the country, but it is likely that there will be an increase in intense rainfall events in many areas.

The vulnerability assessment considered the potential risks emerging from issues of water availability, interrupted access to market through transmission being compromised and reliability of plant. Potential opportunities were also evaluated, in particular the value of peaking plant in meeting peakier electricity load at times of high temperatures.

### **Project Carbon Price Implementation**

In June 2011, AGL established Project Carbon Price Implementation. This cross business unit project will ensure that AGL's systems, processes and business culture is prepared for the introduction of carbon pricing from 1 July 2012.

### Introduction to carbon risk

In the energy industry, to get an accurate picture of a company's greenhouse performance it is not enough to look solely at the total amount of greenhouse gas emitted from the company's operations. It is equally important to examine the greenhouse intensity of the assets managed and invested in by the company, and how the company's business strategy will contribute to the overall greenhouse intensity of Australia's economy into the future.

### **Approach**

The greenhouse intensity of AGL's operated electricity generation portfolio compared to the market average is an important metric for measuring how well the organisation is positioned to manage the risk of regulatory intervention through a carbon price.

**Vision for carbon risk:** AGL's vision is to have an emissions intensity significantly lower than the market average.

**Drivers:** In addition to measuring the greenhouse intensity of generation as an indicator of future economic impacts on AGL, AGL also uses three approaches for measuring and communicating the greenhouse gas impact of its business: an Operational Footprint (page 63), an Equity Footprint (page 65) and an Energy Supply Footprint (page 66).

### **Performance**

The greenhouse intensity of electricity generated from AGL's operated assets compared to the market average is one way to determine how the portfolio is positioned to compete in an energy market that includes a price on carbon.

The greenhouse gas intensity of AGL's operated electricity generation assets decreased by 8% compared to FY2010, to 0.36 tCO₂e/MWh (sent-out).

### **Greenhouse footprint**

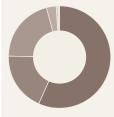
A summary of AGL's three greenhouse footprints is presented below. Further detail about each footprint is provided in the following pages.

### **Equity Footprint** Operational Footprint<sup>1</sup> **Energy Supply Footprint** The Operational Footprint covers the emissions The Equity Footprint sets out AGL's share (by The Energy Supply Footprint estimates the greenhouse gas emissions associated with the use of electricity and gas by AGL customers. The Energy Supply Footprint has decreased slightly compared to FY2010. percentage investment level) of the emissions from fully or partly owned entities. The Equity Footprint has remained constant at 8.0 MtCO<sub>2</sub>e. A decrease from activities and assets that AGL operates. The Operational Footprint has increased by 7% compared to FY2010, to 1.596 MtCO<sub>2</sub>e, primarily due to an increase in electricity generation from the Torrens Island Power Station, and the acquisition of the in emissions associated with AGL's stake in Loy Yang ower was largely offset by an increase in emissions Mosaic Oil facilities from AGL's operated assets FY11 1.596 MtCO<sub>2</sub>e **8.0** MtCO<sub>2</sub>e **48.0** MtCO<sub>2</sub>e **1.489** MtCO<sub>2</sub>e 8.0 MtCO<sub>2</sub>e **49.8** MtCO<sub>2</sub>e 1.677 MtCO.e 8.1 MtCO.e 49.4 MtCO.e

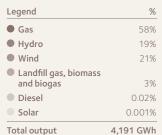
### Note

1 AGL's Operational Footprint includes scope 1 and scope 2 emissions only. Scope 3 emissions were included in this footprint in previous Sustainability Reports, therefore historical emissions have been recalculated to include only scope 1 and scope 2 emissions. This year there have been revisions to the methodologies used to calculate the Equity and Energy Supply footprints. The results from previous years have been recalculated.

# Output and intensity of AGL operated electricity generation assets<sup>1</sup>



Generation intensity 0.36 tCO<sub>2</sub>e/MWh



### Notes

1 These figures relate to the sent-out greenhouse gas emissions (scope 1 and scope 2) intensity of generation assets over which AGL has operational control, regardless of who owns the asset. Assets where AGL controls or has rights to the electricity output only are not included.

### Intensity of AGL operated electricity generation assets<sup>1</sup>



### Notes

- 1 These figures relate to the sent-out greenhouse gas emissions (scope 1 and scope 2) intensity of generation assets over which AGL has operational control, regardless of who owns the asset. Assets where AGL controls or has rights to the electricity output only are not included.
- 2 Australia-wide scope 2 greenhouse gas emissions intensity figure is from the National Greenhouse Accounts (NGA) Factors published by the Department of Climate Change and Energy Efficiency, July 2011 (latest estimate is 0.91 tCO<sub>2</sub>e/MWh).

### **Operational Footprint**

The Operational Footprint covers the emissions from activities and assets that AGL operates.

### **Performance**

The Operational Footprint has increased by 7% compared to FY2010 to 1,596 ktCO $_2$ e, primarily due to an increase in electricity generation from the Torrens Island Power Station, and the acquisition of the Mosaic Oil facilities in the Surat Basin.

The greenhouse intensity of electricity produced from AGL's operated electricity generation portfolio was 0.36 tCO $_2$ e/MWh (sent-out) in FY2011, a decrease of 8% compared to FY2010. This decrease was due to an increase in renewable generation as a result of new wind generation capacity commencing operation, and because FY2011 was the first full year of operation for new hydro and wind assets commissioned in FY2010. During FY2011 there was a 17% increase in electricity generation, and an 8% increase in greenhouse gas emissions from AGL's operated electricity generation assets compared to the previous year.

### **Electricity generation**

AGL's portfolio of gas fired power generation includes the Torrens Island Power Station (1,280 MW intermediate generation plant) and the Somerton Power Station (150 MW peaking plant) as well as embedded natural gas fired cogeneration plants at Coopers and Symex, and the 12 MW embedded coal seam gas fired power station at Moranbah.

AGL's operational footprint is dominated by greenhouse gas emissions from gas fired generation assets. In FY2011, gas fired generation comprised 94% of AGL's operational greenhouse gas emissions. This remained stable compared to FY2010, when 94% of emissions arose from the operation of these facilities.

With a 10% increase in generation from the Torrens Island Power Station, emissions from gas fired generation in FY2011 increased by 8% compared to the previous year. Emissions from renewable generation assets are, by their nature, small compared to other types of generation. AGL's operated renewable generation portfolio includes hydro generation assets in Victoria and New South Wales, and the Wattle Point and Hallett wind farms in South Australia.

The commissioning of the AGL Hallett 4 Wind Farm, and the first full year of operation for the AGL Hallett 2 Wind Farm and the Bogong Power Station that were commissioned during FY2010 contributed to a marked increase in renewable generation compared with FY2010. In FY2011, sent out renewable generation from AGL's operated assets increased by 34% compared to FY2010, to a total of 1,776 GWh. In particular, FY2011 saw large increases in hydro and wind generation, which increased by 40% and 34% respectively, compared to the previous year. This follows the large increase in AGL's renewable generation in FY2010, which was 25% higher than FY2009.

The AGL Energy Services division within Merchant Energy operates a variety of other 'embedded' generation facilities, including landfill gas, biomass and biogas generation facilities and the Wilpena Pound Solar/ Diesel facility. Emissions from these facilities remained fairly stable during FY2011.

### **Hydrocarbon Extractions (HC Extractions)**

AGL owns the HC Extractions facility at Kurnell, New South Wales. HC Extractions produces LPG and naphtha from oil refinery waste gas. HC Extractions greenhouse gas emissions result from natural gas use, electricity consumption and minor emissions associated with fugitive emissions at the site. Greenhouse gas emissions for FY2011 were slightly lower than FY2010 due to a major shutdown during the year.

### **Upstream Gas**

Greenhouse gas emissions from AGL's Upstream Gas projects remained constant at 39 ktCO $_2$ e, the same as in FY2010. These emissions largely arise from AGL's oil and gas production operations at the Camden Gas Project, and the Silver Springs operations (and related fields) in the Surat Basin.

In October 2010, AGL acquired Mosaic Oil, including its operations in the Surat Basin in Queensland (Silver Springs and related fields). In FY2011, growth in greenhouse gas emissions from this aquisition were offest by reductions in emissions at AGL's exploration projects at the Hunter and Gloucester Gas projects. At these projects, well testing activities which commenced in FY2010 (including some gas flaring and venting) were completed early in the financial year, resulting in lower emissions in FY2011.

Emissions from the Camden Gas Project remained constant compared to FY2010, as did gas production at the facility.

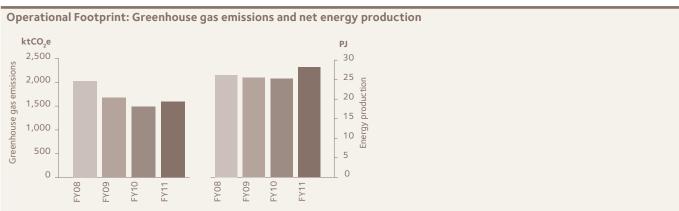
AGL's Upstream Gas business has historically had low greenhouse gas emissions, because most of the projects have been in their initial stages of exploration and well testing. Upstream Gas emissions account for less than 3% of AGL's total Operation Footprint. AGL expects Upstream Gas emissions to increase over time as projects progress from exploration and testing, to production.

### **Retail and Corporate**

AGL manages a number of office facilities where employees carry out services related to the provision of gas and electricity to customers, and provide corporate services to support the broader business. Activities contained in this data included electricity use and vehicle transport.

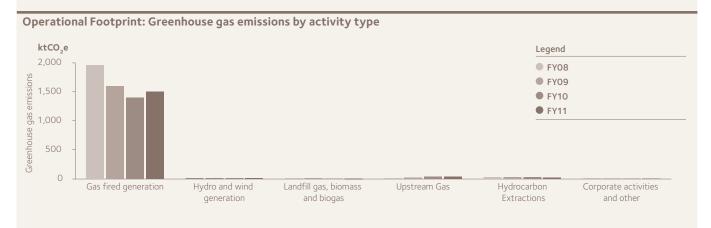
### Scope 3 emissions

Scope 3 emissions are classified as indirect emissions (other than associated with the purchase of steam/heat or electricity) that occur outside an organisation's direct boundary. The primary sources of scope 3 emissions from AGL's operated activities are from the purchase of fuel (mainly natural gas), with 87% arising from the use of natural gas and coal seam gas primarily in AGL's electricity generation assets. In FY2011, AGL's scope 3 emissions were 332 ktCO<sub>2</sub>e, which represents a slight increase from 307 ktCO<sub>2</sub>e in FY2010. This is directly related to an increase in generation from the Torrens Island Power Station (and a corresponding increase in the use of natural gas in the facility).



### Notes

Includes scope 1 and 2 greenhouse gas emissions and net energy production for assets where AGL had operational control. This does not include Oakey, Yabulu, Angaston and Loy Yang A power stations, or AGL's Upstream Gas joint ventures. Greenhouse gas emissions and net energy production have been calculated in accordance with the National Greenhouse and Energy Reporting Act methodologies. Net energy production includes the sent-out generation from AGL's operated power stations, oil and gas sales from operated Upstream Gas assets, and the production of LPG, hydrogen and return gas at the Hydrocarbon Extraction facility. It does not include any production for use within the facility.



### Notes

Includes scope 1 and 2 greenhouse gas emissions for assets where AGL had operational control. This does not include the Oakey, Yabulu, Angaston or Loy Yang A power stations, or AGL's Upstream Gas joint ventures. While emissions from AGL's corporate and retail activities have been included (calculated in accordance with the National Greenhouse and Energy Reporting Act), it should be noted that these emissions have been partially offset by purchasing 100% GreenPower at AGL's main offices in North Sydney, Melbourne, Adelaide and Mount Beauty.

### **Equity Footprint**

The Equity Footprint sets out AGL's share (by percentage investment level) of the emissions from fully or partially owned entities. The Equity Footprint indicates to AGL shareholders the greenhouse gas impacts associated with their investment.

### Performance

The Equity Footprint has remained constant at  $8.0~MtCO_2e$  in FY2011. Decreases in emissions associated with AGL's stake in Loy Yang A Power Station were largely offset by an increase in emissions from AGL's operated assets over the same period, primarily due to increased generation from the Torrens Island Power Station compared to FY2010.

The greenhouse intensity of electricity produced from electricity generation assets that AGL fully or partly owned in FY2011 was 0.94 tCO $_2$ e/MWh (sent-out), a decrease from 0.98 tCO $_2$ e/MWh (sent-out) in FY2010. This intensity is dominated by AGL's equity share of Loy Yang A Power Station, which provides around 60% of AGL's equity share of electricity generation each year. The Wattle Point Wind Farm and AGL Hallett 1, Hallett 2 and Hallett 4 wind farms are not included in this footprint as they are operated but not owned by AGL.

### **Included interests**

AGL's 32.5% stake in Loy Yang Power dominates AGL's Equity Footprint. The Loy Yang A Power Station produced emissions of approximately 20 MtCO $_2$ e in FY2011, with AGL's equity share estimated to be 6.4 MtCO $_2$ e. For FY2011, AGL has estimated emissions from information published regularly by Loy Yang Power in the Loy Yang Reports (available on the LYP website). Information from previous years has been derived from National Greenhouse and Energy Reporting data published by the Commonwealth Government. The greenhouse intensity of the electricity produced by the Loy Yang Power Station during FY2011 is estimated at 1.28 tCO $_2$ e/MWh sent-out (including scope 1 and 2 emissions). This power station operates at the low end of the emissions intensity range of 1.2 to 1.5 tCO $_2$ e/MWh for Victorian coal fired generators, and is considered to be one of the most efficient among these generators.

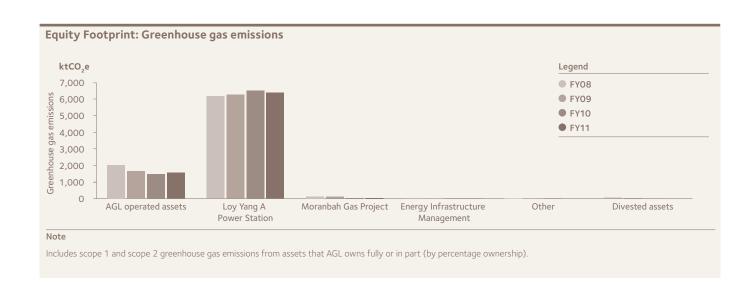
The Moranbah Gas Project is a joint venture between AGL and Arrow Energy, which produces coal seam gas from the Bowen Basin in Queensland (AGL has a 50% interest in the project). Greenhouse gas emissions are generated mainly from the coal seam gas combusted in the processing and compression of gas prior to sale, and from gas fired electricity generation used by the project. AGL has estimated the FY2011 greenhouse gas emissions from these activities based on data provided by Arrow Energy.

AGL has interests of 35% to 37.5% in three production licences in the Cooper Basin (the 'Innamincka JVs'). The activities include oil and gas production, and coal seam gas exploration. AGL also holds a 50% interest in Energy Infrastructure Management (EIM) which operates a range of gas infrastructure assets, including a number of pipelines. AGL's equity share of these emissions has been estimated based on information provided by EIM and Acer Energy.

In October 2010, AGL acquired Mosaic Oil, including a number of non-operated joint ventures. These included a 50% interest in the Wallumbilla LPG plant and the Silver Springs to Wallumbilla pipeline (AGL subsequently acquired the remaining 50% of these assets in April 2011 to become the operator), a 33.33% interest in the Lytton Crude Oil Terminal in Queensland, and interests in an exploration licence in the Carnarvon Basin in Western Australia (subsequently divested), and production licences in the Surat Basin in Queensland (which have low or negligible emissions). Any material emissions from these assets have been estimated from information provided by Santos and IOR Terminal. For both operated and non-operated assets acquired in the Mosaic Oil takeover, AGL has included only the period of AGL ownership in the FY2011 Equity Footprint.

During the reporting period, AGL also had equity interests in CSM Energy, Central Queensland Energy Joint Venture, Mascotte Joint Venture, Spring Gully Project and Torrens Energy. AGL estimates that the greenhouse gas emissions associated with the activities carried out as part of these projects are considered negligible within the AGL Equity Footprint and have therefore not been included.

In addition, AGL has a 50% interest in the ActewAGL Retail Partnership, which includes the operation of the retail electricity, gas and water businesses of ActewAGL. Minimal greenhouse emissions result from office based activities for the ActewAGL partnership.



### **Energy Supply Footprint**

The Energy Supply Footprint is an estimate of the greenhouse gas emissions associated with the consumption of electricity and gas by AGL's customers. The Energy Supply Footprint covers greenhouse gas emissions resulting from the production, transportation, distribution and consumption of electricity and gas throughout the energy supply chain.

### **Electricity Supply Footprint**

Greenhouse gas emissions are produced during the generation of electricity (primarily carbon dioxide) from the combustion of fossil fuels such as coal and natural gas. Energy losses occur across the energy supply system (transmission and distribution systems, and power stations' auxiliary loads).

Power stations therefore have to generate more electricity than is used by end-use consumers, to cover the losses associated with the transmission and distribution networks used to deliver electricity to the customers. The direct (physical) emissions occur at the point of generation (power stations), where the fuel is combusted. There are few direct emissions from transmission and distribution, and there are no direct greenhouse gas emissions at the consumer end of the supply chain.

The Energy Supply Footprint emissions associated with the provision of electricity to AGL's customers in FY2011 has slightly decreased since FY2010 to 36.5  $MtCO_2e$ , in line with a minor decrease in total sales. The emissions intensity of electricity supplied in FY2011 has also remained relatively constant compared to FY2010.

### **Gas Supply Footprint**

In the case of gas supply, greenhouse gas emissions arise from production and processing at gas fields, transmission, distribution, and when gas is combusted by AGL's customers in their homes and businesses.

During gas production, there is some venting of carbon dioxide and methane at the gas field, minor fugitive emissions during processing, and the combustion of some natural gas to operate processing equipment. Further emissions occur during transmission and distribution, comprising fugitive emissions and emission arising from the use of additional natural gas in compressors along the pipelines. At the consumer end of the supply chain, the combustion of natural gas produces the bulk of the supply chain greenhouse gas emissions.

The Energy Supply Footprint emissions associated with the provision of gas to AGL's customers has remained constant at 11.5 MtCO $_2$ e compared to FY2010, with gas sales also remaining relatively constant. The intensity supplied to AGL customers in FY2011 has remained relatively constant compared with FY2010.

### Note

1 AGL has revised the methodology used to calculate the AGL Energy Supply Footprint. Values for previous years have been recalculated using the new methodology, and will therefore be slightly different to values previously reported. The Gas Supply Footprint includes all supply chain and combustion emissions associated with selling gas to AGL's customers, including mass market, commercial and industrial, and wholesale. However, emissions from the natural gas that AGL supplies to power stations are not included, to avoid double counting (the Electricity Supply Footprint includes upstream and generation emissions from supplying electricity).

### Electricity Supply Footprint<sup>1</sup>

Source	Emissions (MtCO <sub>2</sub> e)			
	FY08	FY09	FY10	FY11
Generation	37.7	35.1	34.7	33.2
Transmission and distribution	3.0	2.8	3.5	3.3
Consumption	0.0	0.0	0.0	0.0
Total	40.7	37.9	38.2	36.5

### Note

- 1 AGL has revised the methodology used to calculate the AGL Energy Supply Footprint. Values for previous years have been recalculated using the new methodology, and will therefore be slightly different compared to values previously reported.
  - The new methodology simplifies the Footprint by using factors published by the Commonwealth Government, rather than AGL-specific data.

### Gas Supply Footprint<sup>1,2</sup>

Source	Emissions (MtCO <sub>2</sub> e)			
	FY08	FY09	FY10	FY11
Production	1.6	1.7	1.5	1.4
Transmission and distribution	0.4	0.4	0.4	0.4
Consumption	9.6	9.4	9.6	9.7
Total	11.7	11.5	11.5	11.5

### Note

- 1 AGL has revised the methodology used to calculate the AGL Energy Supply Footprint. Values for previous years have been recalculated using the new methodology, and will therefore be slightly different compared to values previously reported. The Gas Supply Footprint includes all supply chain and combustion emissions associated with selling gas to AGL's customers, including mass market, commercial and industrial, and wholesale. However, emissions from the natural gas that AGL supplies to power stations are not included, to avoid double counting (the Electricity Supply Footprint includes upstream and generation emissions from supplying electricity).
- 2 Values may not sum to total due to rounding.

# **Greenhouse footprints – supporting information**

### Supporting information – Operational Footprint

### Data preparation and boundaries

Greenhouse gas emissions, energy consumption and energy production data reported as part of the AGL Greenhouse Footprint have been prepared in line with AGL's interpretation of the *National Greenhouse and Energy Reporting Act 2007* (Cth) and supporting regulations.

### Reporting period

The data presented in the AGL greenhouse footprints has been prepared for the reporting period 1 July 2010 to 30 June 2011.

### Greenhouse gas emissions estimation methodology

The Operational Footprint has been estimated in line with the National Greenhouse and Energy Reporting (Measurement) Determination 2008 (as amended) published by the Commonwealth of Australia for the FY2011 reporting year, and related guidelines. Greenhouse gas emissions are all expressed in tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e).

### Energy consumption and energy production measurement

The measurement of energy consumption and energy production presented in the Operational Footprint has been carried out in line with the National Greenhouse and Energy Reporting (Measurement) Determination 2008 (as amended) published by the Commonwealth of Australia (unless otherwise indicated). Energy consumption and energy production are all expressed in gigagoules (GJ).

### Organisational boundaries

Greenhouse gas emissions, energy consumption and energy production presented in the Operational Footprint have been reported for the corporate group of AGL Energy Limited (the parent company and its wholly owned Australian subsidiaries), as determined in line with the *National Greenhouse and Energy Reporting Act* 2007 (Cth).

### Operational boundaries

Greenhouse gas emissions, energy consumption and energy production in the Operational Footprint have been reported for facilities over which AGL has 'operational control', as defined in the *National Greenhouse and Energy Reporting Act 2007* (Cth), within the organisational boundaries.

### Scope 3 greenhouse gas emissions

Scope 3 greenhouse gas emissions have been presented separately from the Operational Footprint for FY2011. Scope 3 greenhouse gas emissions have been treated separately as the reporting of this data is not required under the *National Greenhouse and Energy Reporting Act 2007* (Cth). Scope 3 emission sources from AGL's activities include purchase of fuel (mainly natural gas) and electricity use for office based activities. Scope 3 emissions from sources such as office waste disposal and travel are negligible and have not been included.

Scope 3 emissions have been estimated using emission factors published by the Commonwealth in the National Greenhouse Accounts Factors (July 2011).

### Supporting information - Equity Footprint

The Equity Footprint sets out AGL's share (by percentage investment level) of the emissions from fully or partially owned entities. AGL considers that the Equity Footprint broadly meets the requirements of the WBCSD/WRI Greenhouse Gas Protocol's 'Equity Share Approach' to greenhouse accounting.

AGL sources data from equity partners, where available, otherwise specific assumptions are made which are disclosed. Equity Footprint data reported only includes scope 1 and scope 2 emissions.

AGL has no overseas interests which result in significant greenhouse gas emissions. AGL acquired equity interests in four exploration licenses in the Taranaki Basin in New Zealand in the Mosaic Oil takeover. AGL is not the operator of these projects, and since they are in the exploration phase, the emissions are not considered to be significant.

### Supporting information – Energy Supply Footprint

The Energy Supply Footprint estimates the greenhouse gas emissions associated with the consumption of electricity and gas by AGL customers. The model used to estimate the emissions has been redeveloped in FY2011 to utilise assumptions published by the Department of Climate Change rather than using internal AGL data. Previous years' data has been recalculated using this revised methodology. Results for the FY2011 Energy Supply Footprint model were reviewed internally by the Merchant Energy and Economic Policy and Sustainability teams.

AGL has recalculated greenhouse gas emissions associated with gas supplied to customers for FY2009 and FY2008 to exclude the greenhouse gas emissions associated with gas combustion at AGL facilities. In previous years these greenhouse gas emissions had been included in both the Gas and Electricity Supply Footprints.

As these two footprints are combined to provide the overall Energy Supply Footprint this in effect 'double counted' greenhouse gas emissions associated with gas combustion at AGL operated facilities.

# Climate change

# Sustainable generation sources

### Introduction to sustainable generation sources

AGL continues to focus on investing in electricity generation that is renewable or low-greenhouse gas intensity.

### **Approach**

AGL's strategy is substantially focused on renewable generation investment. This investment is largely driven by opportunities created by Australia's 20% Renewable Energy Target legislation which has bipartisan political support. Historic investment in renewable energy has positioned AGL to have a relative carbonintensity advantage with the introduction of a carbon price from 1 July 2012.

AGL has investments across a wide range of electricity generation technologies. AGL's hydroelectricity assets are concentrated around the Victorian and New South Wales border, and provide 796 MW of peak generation capacity. Both gas fired generation and hydro generation can be quickly switched on. AGL typically deploys this generation in shoulder and peak periods, to put additional supply into a higher-priced wholesale electricity market.

In addition to hydroelectricity, AGL owns/operates renewable generators in a range of locations and technologies. Landfill gas generation is scattered around Australia, including the eastern states, Tasmania and Western Australia. AGL's wind generation portfolio is concentrated in South Australia; however, there are numerous projects in the development pipeline which will diversify the geographical location of wind assets. These renewable assets provide generation across the three categories of base, intermediate and peak electricity duties.

Although accounting for over half the installed capacity of AGL's operated generation assets, gas fired facilities are limited to just three stations - the 1,280 MW Torrens Island Power Station, the 150 MW Somerton Power Station and the 12 MW Moranbah Power Station.

AGL has secured a range of prospective renewable and low emission gas generation development options. This pipeline of developments will sustain AGL's position as Australia's leading integrated renewable energy company. AGL also has a suite of complementary gas fired assets. A list of projects is provided on page 3.

**Vision for energy sources:** AGL's vision is to be Australia's largest renewable energy company.

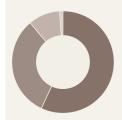
**Drivers:** AGL's investment decisions are influenced by the Renewable Energy Target (page 69), an expected future price on carbon (page 70), and the commercialisation of emerging renewable technologies (page 71).

### **Performance**

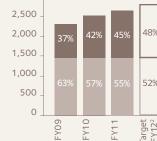
In FY2011, a further 132 MW of renewable energy generation capacity commenced commercial operation. The operation of the AGL Hallett 4 Wind Farm increased AGL's operated renewable capacity by 12% to 1,205 MW.

Renewable energy capacity now makes up 45% of AGL's operated capacity, compared to 42% in FY2010.

### Installed capacity of operated generation assets<sup>1</sup>







FY09



### Note

This breakdown includes only those assets where AGL has operational control When these figures are added to those assets where AGL has other ownership or operational interests, including the control of electricity dispatch or equity stake (apportioned by investment level), AGL's total installed capacity is 3,889 MW.

### Notes

MW

3.000

These figures relate to the capacity of electricity generation assets over which AGL has operational control, regardless of who owns the asset. Assets where AGL has rights to the electricity output only are not included.

Installed capacity of operated electricity generation<sup>1</sup>

2 The FY2012 forecast is based on the AGL Hallett 5 and Oaklands Hill wind farms commencing commercial operation

Climate change

# Sustainable generation sources

# Renewable energy target

Investing in renewable energy delivers an immediate benefit in ensuring AGL contributes its share of meeting Australia's Renewable Energy Target, and in the medium term will deliver greater value to the organisation when the cost of carbon is accounted for in the energy supply chain.

### **Approach**

In August 2009, the Commonwealth Government passed legislation introducing a 20% Renewable Energy Target (RET) by 2020 for Australia. The new target requires 41,000 GWh of renewable generation by 2020 to 2030, a four-fold increase on the original Mandatory Renewable Energy Target.

In June 2010, the Commonwealth Government amended the RET Scheme, splitting it into two distinct components:

- > a Large Scale Renewable Energy Target (LRET) which uses a market mechanism to support new large-scale investment
- > a Small Scale Renewable Energy Scheme (SRES) which delivers a fixed price incentive for the installation of small scale technologies such as solar hot water systems and solar PV.

The LRET constitutes the vast majority of the 20% RET by 2020. AGL has already commenced planning new large-scale generation projects and is in regular discussions with independent developers to satisfy its RET obligations. New renewable generation commencing operation is able to create one Renewable Energy Certificate (REC) for each MWh of electricity produced. These RECs are then sold to electricity retailers such as AGL for use in complying with the LRET legislation.

#### **Performance**

### Building new renewable generation

It is estimated that meeting the 20% target by 2020 will require around \$30 billion of investment in new renewable energy generation. As an energy retailer with a significant market share of Australia's electricity consumption, AGL's developments are poised to make a significant contribution to meeting this target.

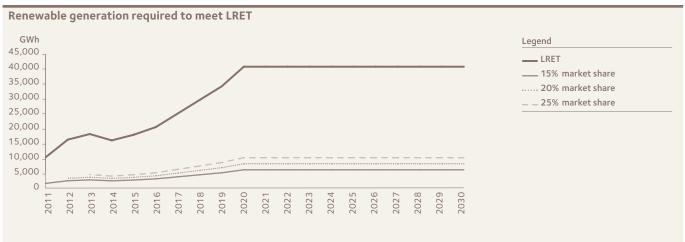
In FY2011, AGL completed work on the AGL Hallett 4 Wind Farm. This project adds 132 MW of new renewable capacity to AGL's operated electricity generation portfolio. AGL is continuing to develop a number of other wind farm projects including:

- > AGL Hallett 5 Wind Farm: located close to AGL's other Hallett wind farms in South Australia, when completed this project will add around 52 MW of wind capacity to AGL's portfolio
- > Oaklands Hill Wind Farm: this project, located in western Victoria, will comprise 63 MW of new wind powered generation capacity
- Macarthur Wind Farm: the 420 MW Macarthur project in south-western Victoria will be one of the southern hemisphere's largest wind farms, producing enough energy to power 220,000 households.

AGL is also acting to further diversify the renewable energy technologies in which it invests (refer to page 71 for further information).

### Securing demand

AGL's strategy of investing in renewable energy is not only in response to government-mandated targets. Consumer-driven demand is also important. As part of managing issues such as legislative risk, AGL has sought to contract renewable electricity supply directly with large consumers that is in addition to mandated targets. AGL has secured significant customer loads for renewable energy, which effectively underwrite new renewable energy projects. Through these contracts, AGL is meeting its goal of being Australia's largest retailer of new renewable energy, selling over 1 TWh annually.



### Note

This chart indicates the relative proportion of Australia's renewable energy target that AGL will be responsible for, based on current market share (approximately 15%), and also its potential market share of 20% or 25% over the coming years.

# Climate change

# Sustainable generation sources

# **Carbon price**

"AGL wants to see the bipartisan emission reduction target achieved at the lowest cost to our customers and all Australian families and businesses", AGL CEO and MD, Michael Fraser, 10 July 2011

### **Approach**

AGL has continued to be a leader in the energy supply sector in advocating the introduction of a price on carbon. AGL's Climate Change Council, consisting of non-government organisations advocating climate change policy, continues to meet quarterly to inform AGL's policy and strategy. Research by AGL economists completed with assistance from The Climate Institute (a member of the AGL Climate Change Council) has conclusively demonstrated the material economic costs being imposed upon the community because of a lack of political agreement on the policy mechanism to deliver emission reductions that have bipartisan support. This research led to the establishment of the Commonwealth Department of Resources, Energy and Tourism Investment Review Group and completion of a report by Deloitte confirming these findings.

Despite uncertainty regarding bipartisan political commitment for the introduction of a price on carbon emissions, the vast majority of industry commentators and representatives, including the Energy Supply Association of Australia, support the introduction of a well-designed national emissions trading scheme (ETS). AGL supports the introduction of the Commonwealth Government's Clean Energy Future package, and specifically placing a price on carbon on 1 July 2012. Adopting a market-based trading approach will allow Australia to achieve its 2020 greenhouse gas reduction target range of 5%–25% below 2000 levels by 2020, in a way that minimises costs on Australian families and businesses.

AGL continues to strategically prepare and measure performance in relation to the management of greenhouse gas emissions.

AGL is well prepared to participate in emission reduction activities. The National Greenhouse and Energy Reporting Scheme requires AGL to disclose scope 1 and scope 2 emissions. Although a compliance obligation, this reporting protocol directly feeds into AGL's investment strategy and risk management. AGL is progressing its carbon risk assessment process beyond mitigation to more closely look at adaptation issues, and has continued to update vulnerability assessments of critical infrastructure, working off the release of updated information on the impacts of climate change on Australia's physical climate.

### **Domestic emissions trading**

AGL's integrated strategy reflects the acceptance of Intergovernmental Panel on Climate Change advice that significant greenhouse gas emission reductions are required by the middle of this century to stabilise the concentration of  ${\rm CO_2e}$  in the atmosphere and the adoption of a price on carbon to achieve such reductions.

A key metric to measuring performance of the implementation of this strategy is the anticipated uplift in AGL asset value due to the introduction of a carbon price. The uplift in value is based upon modelling the impact on wholesale electricity prices due to carbon costs and comparing it with the costs that AGL's electricity generation assets would incur. Advancing this metric will require investment in low-emission generation and the deployment of new renewable energy generation. For several years, AGL has outlined scenario analysis in relation to the impacts of carbon pricing (refer to 2009 Sustainability Report).

### Clean Energy Future - Impact on AGL

Australia's electricity supply sector is dominated by coal fired generation, providing some 81% of Australia's electricity (esaa 2010). Consequently, electricity generation accounts for over one third of greenhouse gas emissions in Australia. Consistent with the Board approved AGL Greenhouse Gas Policy, AGL has identified that placing a cost on greenhouse gas emissions will alter the economic incentives for electricity generation. In particular, lower intensity generation over time will become comparatively lower cost relative to coal fired generation, increasing its market share and contributing to the reduction of Australia's greenhouse gas emissions.

In terms of electricity generation and upstream gas assets directly owned or controlled by AGL, an ETS would require AGL to pay a carbon price (fixed for the first three years and variable beyond 2015) for each tonne of greenhouse gas emissions. It would also require AGL to pay a carbon price for the combustion emissions associated with small gas customers, including households. In addition to the costs incurred in paying the carbon price directly, AGL would also experience increased costs in electricity and gas purchased from wholesale markets, as those producers seek to recover their costs for paying a carbon price for their direct emissions. Subsequently, energy consumers will face uplifts in energy prices as the cost of emissions is introduced to the energy supply chain. After several years of ongoing detailed analysis, AGL has a thorough understanding of these aggregated impacts on its business.

### Mandatory markets

AGL has continued to participate in the existing climate-related markets such as the New South Wales Greenhouse Gas Reduction Scheme, and the Queensland 13% Gas Electricity Scheme.

AGL considers the existing state-based mandatory ETS markets have a key transitionary role to play for preparing industry for a national mechanism. However, once a national ETS does commence, these schemes should be discontinued in a manner that preserves or compensates the value of investment decisions made under these schemes.

### Voluntary abatement

AGL has secured significant customer contracts for renewable energy, which effectively underwrite new renewable energy projects. Through these contracts, AGL is meeting its goal of being Australia's largest retailer of new renewable energy, selling over 1 TWh annually.

### International emissions trading

AGL does not have facilities operating outside of Australia. As such, AGL is not engaged in international emissions trading.

Climate change

# Sustainable generation sources

# Research, development and deployment

Technology in the energy supply sector is developing quickly. Changes to fuel sources, location of generation, consumption patterns, and the availability of data are all changing.

### Approach

With a focus on deployment of technologies that are approaching commercialisation, this year AGL has been successful in partnering directly with technology proponents and other members of industry to participate in important renewable energy programs supported by the Federal Government. AGL typically does not directly participate in research and development; however, initiatives by investment partners (such as Loy Yang Power and Project Better Place) are outlined in the report.

### Renewable energy

In May 2010, AGL was shortlisted as a finalist in the Commonwealth Solar Flagships Program, part of the Australian Government's \$5.1 billion Clean Energy Initiative. The independent Solar Flagships Council selected eight of 52 applications for funding, including AGL's, to progress to the second stage of the process. AGL's proposal consisted of up to five solar PV projects with a nominal capacity of between 30 MW and 50 MW each in up to five different states/territories. Unfortunately, AGL's application was unsuccessful with two other applications from the final eight being selected for funding. While disappointing, AGL remains committed to examining future opportunities for the development of large-scale solar PV generation.

### Investment partner initiatives

### Loy Yang Power

Loy Yang Power owns and operates the Loy Yang A Power Station in Victoria's LaTrobe Valley. AGL is a minority investor in this brown coal fired power station, with a 32.5% equity stake in the Greater Energy Alliance Corporation (GEAC) which owns Loy Yang Power. Although the most efficient of Australia's brown coal fired generators, Loy Yang A Power Station is one of the largest point source emitters of greenhouse gas emissions in Australia.

Developments with respect to greenhouse gas emissions at Loy Yang this year include:

- > Loy Yang Power continues to participate in a Post Combustion Carbon Capture Project. The project has been funded jointly by Loy Yang Power, other industry participants and the Victorian and Australian governments. The study is the first of its kind in Australia and will act as a catalyst for the future development of a commercially viable post-combustion carbon capture plant based on Mitsubishi Heavy Industries' latest technologies. A prefeasibility study will commence this year with government funding support via 'carbon net' of \$2 million.
- > Loy Yang Power has an ongoing commercial relationship with MBD Energy Limited concerning the bio-sequestration of carbon dioxide. The MBD carbon dioxide bio-sequestration process is unique because captured flue gasses, including carbon dioxide, are recycled with waste water to produce valuable commodities and clean water. The MBD technology is ideally suited to coal fired power stations because it utilises adjoining buffer land and consumes flue emissions, waste water and sunlight to produce oil suitable for energy and plastics production (and other derivatives) as well as nutritious stock feed, clean water and oxygen.

### ActewAGL

In June 2011, ActewAGL signed a landmark agreement with Better Place in relation to the provision of renewable electricity for the deployment of electric vehicles. The \$60 million supply agreement will result in new renewable energy being provided over 10 years to electric vehicles purchased and operated within the Australian Capital Territory. ActewAGL has been working with Better Place for some time on the deployment of electric vehicles within Canberra. Electric vehicles have the capacity to significantly reduce Australian transportation greenhouse gas emissions and to provide alternatives to peak load management for electricity network operators.

# Introduction

# AGL is committed to achieving excellence in environmental management and performance.

AGL's corporate health, safety and environmental management system, Life Guard, establishes a framework of requirements, policies, environmental standards and compliance guides based on the ISO 14001 Environmental Management System standard. Life Guard provides a framework to enable continuous improvement in health, safety and environmental performance and facilitates the pro-active management of environmental risks and compliance responsibilities.

AGL's approach to environmental management is also guided by the AGL Environmental Principles, which are available on the AGL website at aql.com.au/EnvironmentalPrinciples.

Key elements of the principles include commitments to:

> meet or exceed statutory obligations

user of water that seeks

to minimise the adverse

impact of its operations on local water resources.

- > report environmental performance consistent with recognised standards
- > provide leadership and actively participate in the policy debate on energy and environmental matters
- > reduce risk and minimise environmental impact
- > consult with stakeholders on how best to achieve environmental objectives.

Some of AGL's operations have a material environmental footprint and have the potential to interact with, and impact on, various

seam gas projects.

aspects of the environment. AGL's businesses are subject to a range of environmental laws, regulations and policies as well as project- and site-specific environmental permits and approvals issued at federal, state and local government level. AGL monitors compliance with these regulatory requirements and engages with regulators and other stakeholders. AGL also monitors and publicly reports environmental footprint data via its annual Sustainability Report, and provides relevant information to regulatory agencies and bodies.

The two key focus areas for the Environment chapter of this report are environmental risk and water management.

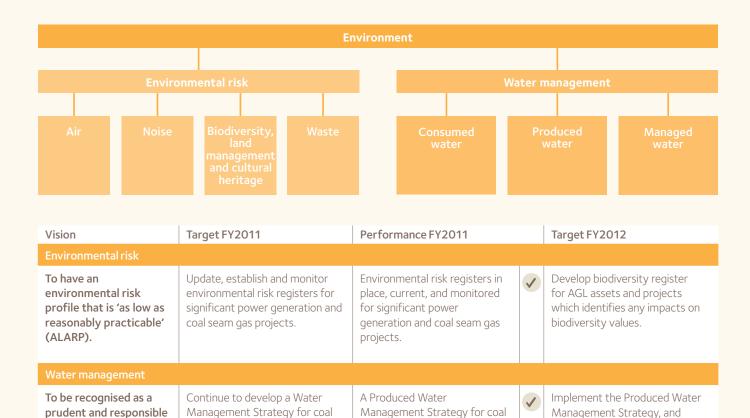
**Environmental risk**: AGL's environmental program is driven by the environmental risk profile of the business and by regulatory requirements. AGL's long-term vision is to have an environmental risk profile that is 'as low as reasonably practicable'. This aspiration marries both the need to operate in an environmentally responsible manner and the need to target resources and efforts on a risk basis.

**Water management**: Management of water resources is a critical environmental issue facing Australia and one that is relevant to AGL's business. AGL's long-term vision is to be recognised as a prudent and responsible user of water that seeks to minimise the impact of its operations on local water resources.

develop plans for drill water

and coal seam fracturing/

flowback water.



seam gas projects has been

established.

# **Environmental risk**

### Introduction to environmental risk

The understanding and management of risk is crucial to the ongoing success of any business. The management of environmental risk is particularly important to AGL's businesses that regularly construct new plant and operations on greenfield sites, hold long-term leases on land used by third parties for other purposes, and operate in sensitive environments such as National Parks.

### **Approach**

AGL's approach to the identification of environmental risks is consistent with the approach taken in the ISO 14001 Environmental Management Systems standard. More broadly, AGL's approach to risk management, as outlined in the AGL Risk Management and Assessment Framework, is modelled on the ISO 31000 Risk Management standard. Risks identified via the ISO 14001 'aspects and impacts' approach are assessed from the perspectives of 'inherent risks', and 'treated risks' (which take into consideration existing control measures). This approach enables AGL to identify critical controls. It also helps identify where the highest residual risks remain so resources can be targeted appropriately, or informed decisions can be made about accepting certain risks.

AGL's health, safety and environmental management system, Life Guard, contains standards relating to Environmental Aspects and Impacts and Risk Management. These standards provide high-level guidance on the process for identification of environmental risks.

**Vision for environmental risk:** AGL's long-term vision is to maintain an environmental risk profile that is 'as low as reasonably practicable' (ALARP). This requires continual improvement that is driven by an understanding of risks, and a commitment and targeted work program to reduce the highest risk items where practicable.

**Drivers:** Specific consideration of issues associated with the use and management of water resources is given on pages 80 to 84. The key environmental issues of atmospheric emissions, noise, biodiversity, land management and cultural heritage and waste are discussed on pages 75 to 79.

Climate change risks are addressed with the Climate change chapter of this report.

#### **Performance**

AGL's key environmental risks have been identified systematically via workshops run in the Upstream Gas and Merchant Energy business units. The workshops involved a diverse range of operations personnel and environmental specialists.

AGL operates within some areas of high environmental value that are protected by legislation. For example, the Torrens Island Power Station is surrounded by a protected dolphin sanctuary, and part of the Kiewa Hydro scheme is located within the Alpine National Park. In these cases, the high sensitivity of the receiving environment can result in significant risk even when AGL has made every effort to reduce the risk as far as reasonably practicable.

AGL's significant environmental risks relate to:

- > surface water particularly associated with AGL's Torrens Island Power Station which is surrounded by sensitive and protected water bodies, and AGL's hydro assets which interact with and rely upon water bodies, some of which are located within protected areas
- > groundwater specifically the potential for impacts associated with drilling and the extraction of groundwater undertaken as part of Upstream Gas exploration and development projects, as well as the potential for historic soil and groundwater contamination on older assets now owned by AGL
- > biodiversity reflective of the fact that some of AGL's assets and project locations are in close proximity to, and in some cases within, protected flora and/or fauna habitat areas.

Activities completed in FY2011 to reduce environmental risk towards ALARP include:

- > the development of a Produced Water Management Strategy for Upstream Gas projects
- > the review and/or establishment of environmental risk registers for all coal seam gas projects and large power generation facilities (over 150 MW), identifying actions to reduce environmental risk.

In FY2012 AGL will focus on minimising environmental risk by:

- > implementing the Produced Water Management Strategy, and developing strategies for drill water and coal seam fracturing/ flowback water
- > developing environmental risk registers for Upstream Gas assets acquired from Mosaic Oil NL in October 2010
- > continuing to review and refine key control measures to ensure effectiveness
- > developing a corporate biodiversity register to provide a company-wide view of biodiversity risks, enabling a strategic approach to biodiversity risk management.

# **Environmental risk**

### **Environmental incidents and licence compliance**

AGL is subject to a range of environmental laws, regulations and policies as well as project and site-specific environmental permits and approvals issued at both federal and state government levels. The table below sets out environmental issues and non-compliances against these requirements that occurred during the reporting period.

During FY2011, there were no fines or infringement notices applied to sites that AGL operates. However, an incident comprising the emission of non-hazardous soap foam from a degasser unit that occurred during well workover activities at the Camden Gas Project in May 2011 resulted in a formal warning being issued by the NSW Office of Environment and Heritage (OEH). The warning was issued on the basis that the degasser was not being operated in a proper and efficient manner, as is required by the operation's Environmental Protection Licence. In its warning letter to AGL, the OEH advised AGL that it found that there was no significant harm to the surrounding environment resulting from the incident, and that AGL has taken corrective actions to reduce the likelihood of this type of incident reoccurring.

A total of 53 environmental incidents at AGL operated sites were recorded in AGL's corporate incident reporting systems during FY2011, compared with 15 incidents recorded in FY2010. One of the incidents was rated as having a high potential risk (the overtopping of a dam at the Downlands Facility during the Queensland floods in December 2010). Other incidents included minor spills and leaks, administrative non-compliances and non-compliant air emissions.

The increase in the number of environmental incidents reported in FY2011 is largely due to:

- > improved reporting practices across AGL, following the implementation of a new system for reporting and tracking health, safety and environmental incidents and hazards in May 2010
- > a more active internal environmental licence compliance audit program
- > nine potential and actual non-compliances with environmental authorities that were identified during an internal environmental assessment of sites acquired from Mosaic Oil NL in October 2010. Corrective actions are being undertaken to bring these sites into compliance.

In addition to environmental incidents at AGL operated sites, during FY2011, a number of incidents occurred at the AGL-Arrow Energy Moranbah Gas Project joint venture, where Arrow Energy is the operator. Further information can be found in the 2011 Annual Report available at 2011annualreport.agk.com.au.

Site	Comment
Torrens Island Power Station, SA	In May 2010, voluntary site investigations detected trichloroethylene in groundwater at a specific location beneath the Torrens Island Power Station site. The SA Environment Protection Authority (EPA) was notified under Section 83A of the <i>Environment Protection Act (1993)</i> . In line with EPA requirements, investigations are continuing to determine the extent and nature of the impact and the development of a management plan.
AGL Hallett 2 Wind Farm, SA	In response to concerns of a resident, noise testing undertaken in November 2010 and May 2011 identified tonality was at an unacceptable level at a residence. AGL and the engineering, procurement and construction contractor have taken significant steps to address the issue, and are working with the resident to identify a full solution. AGL is keeping EPA informed of progress.
Suncoast Gold Macadamias, Qld	Audits initiated by AGL in May and November 2010 identified non-compliances related to the Site Based Management Plan, frequency of air emissions monitoring and particulate fallout. Corrective actions have been implemented to return the site to compliance, and will be detailed in the next annual report to the Department of Environment and Resource Management (DERM) in accordance with permit requirements.
Downlands Oil and Gas Facility, Qld	Following sustained heavy rain in early December 2010, water overflowed from a pond to land adjacent the pond outside of AGL's fenced operational area. DERM and the landowner were notified about the incident, and a Transitional Environment Program was approved by DERM and implemented to return the site to compliance.
Silver Springs and Fairymount Oil and Gas Project, Qld	In January 2011, AGL completed an internal environmental assessment of the oil and gas operations that it acquired from Mosaic Oil NL in October 2010. A number of potential and actual non-compliances with environmental authorities were identified and, where required, were reported to DERM. Corrective actions are being undertaken to bring operations into compliance.
Moranbah Power Station, Qld	In May 2011, an internal audit identified non-compliances related to the Site Based Management Plan, air emissions monitoring and spill prevention. These issues have been corrected and will be detailed in the next annual report to DERM in accordance with permit requirements.
Camden Gas Project, NSW	In May 2011, non-hazardous soap foam was emitted from a degasser unit during well workover activities. Following an inter-agency investigation into the incident led by the Office of Environment and Heritage (OEH), in August 2011, OEH issued a formal warning to AGL on the basis that the degasser was not being operated in a proper and efficient manner, as is required by the operation's Environmental Protection Licence. The OEH also advised AGL that it found that there was no significant harm to the surrounding environment resulting from the incident, and that AGL had taken corrective actions to reduce the likelihood of this type of incident reoccurring. Refer also to page 40.
Dartmouth Power Station, Vic	In June 2011, a faulty turbine pump seal resulted in a spill of approximately one litre of oil into the power station's tail bay. The EPA and Goulburn Murray Water were notified about the incident.

# **Environmental risk**

### Air

AGL has a portfolio of power generation plants which are fuelled by the combustion of a range of traditional and non-traditional fuels which result in the emission of combustion products to the atmosphere.

### Approach

AGL has gas fired power plants at Torrens Island in South Australia and Somerton in Victoria, and an increasing range of smaller plants powered by non-traditional fuels at the sites of some of AGL's major customers. All of AGL's thermal power plants produce emissions to air, as do AGL's Rosalind Park Gas Plant at Camden and Hydrocarbon Extractions plant in New South Wales, and gas and oil operations acquired from Mosaic in Queensland. For many of these sites, air emissions are regulated by State government agencies via site-specific licences.

The emissions generated by the power generation units at AGL's major customer sites are a consequence of harnessing the energy contained within what would otherwise be considered 'waste' streams. These 'wastes' are put to good use as fuel, rather than disposed of with no reclamation of their calorific value. For example, power is produced from burning biogas at the Melbourne Water Werribee Sewage Treatment Plant in Victoria, and from burning macadamia nut shells at the Suncoast Macadamia plant in Oueensland.

AGL recognises that emissions to air from its plants can potentially contribute to regional airshed environmental issues, such as photochemical smog, so it is important that plants run efficiently and within the parameters set by regulatory licences. Undertaking regular maintenance helps keep equipment running efficiently, and AGL regularly monitors emissions to verify compliance with regulatory requirements. Emissions are reported to regulators as required and also to the Federal Government's National Pollutant Inventory (NPI) each year. The NPI is a database of emissions from Australian industrial facilities that use certain amounts of the 93 substances listed on the inventory.

Air emissions of nitrogen oxides ( $NO_x$ ), sulphur dioxide ( $SO_2$ ), particulates (measured as  $PM_{10}$ ), carbon monoxide (CO) and volatile organic compounds (VOC) from AGL's portfolio of operated electricity generation facilities represented less than 2% of emissions for each pollutant type reported to the NPI for the electricity generation sector for FY2010. While not material, AGL will continue to monitor and, where possible, minimise these emissions.

### **Performance**

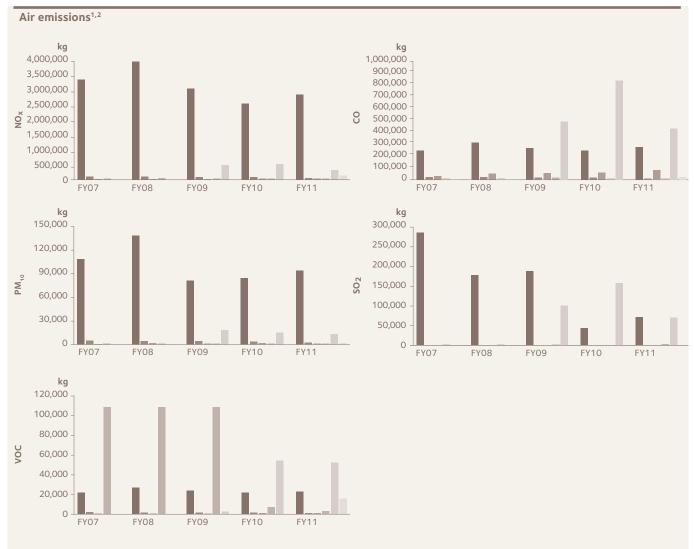
During FY2011, AGL's  $NO_x$  and  $PM_{10}$  emissions rose slightly. The Torrens Island Power Station is AGL's largest electricity generation plant, and largest source of  $NO_x$  and  $PM_{10}$  emissions. In FY2011, greater generation activity at Torrens Island has resulted in higher emissions from the power station as shown on page 76.

Torrens Island Power Station has the capacity to run on either natural gas or fuel oil. Natural gas is a cleaner fuel and is the primary fuel used. Fuel oil, which has relatively high sulphur content, provides a back-up option to run if natural gas becomes unavailable. In FY2011, greater amounts of natural gas and fuel oil were used due to the increased generation activity at the Torrens Island Power Station, resulting in higher SO<sub>2</sub> emissions from this facility.

AGL's overall  $SO_2$  emissions were significantly lower in FY2011, as were emissions of CO. These reductions largely reflect a change in emission estimation technique which provides more accurate calculations for some major customer sites. Previously, emissions from AGL's seven landfill gas generation facilities and the Melbourne Water biogas unit at Werribee were estimated based on the total volume of biogas entering the generation facilities (including inert components, such as carbon dioxide and nitrogen). In FY2011, emission estimates for these sites are based on the volume of the actual fuel component (methane) from the biogas combusted at each of the sites.

Although AGL's VOC emissions rose in FY2011, largely due to the acquisition of the Mosaic gas and oil assets in Queensland in October 2010, they were still well below FY2009 figures. The lower VOC emissions in FY2010 and FY2011 are largely the result of the introduction of a 'Leak Detection and Repair' (LDAR) program at the Hydrocarbon Extractions plant in 2009. The LDAR program includes the regular measurement and abatement of fugitive emissions of VOCs.

# **Environmental risk**



### Legend

- Torrens Island Power Station
- Somerton Power Station
- Camden Gas Project
- Hydrocarbon Extractions
- Major customers<sup>3,4</sup>
- Silver Springs Oil and Gas Project<sup>5</sup>

### Notes

- 1 All figures rounded to two significant figures.
- Air emission data for AGL sites is publicly reported National Pollutant Inventory (NPI) data (see http://www.npi.gov.au/) with the exception of Hydrocarbon Extractions (HCE). HCE emissions for NO<sub>x</sub>, PM<sub>10</sub>, SO<sub>2</sub> and VOC comprise Environment Protection Authority (EPA) reported data incorporating site-specific emission factors, which are more representative than NPI estimates. CO is not captured in EPA reporting; therefore NPI reported CO emissions are used for HCE.
   Major customer sites for which air emission data is reported for FY2009 are: Suncoast Macadamias, Melbourne Water Werribee biogas unit, Moranbah Power Station, Coopers cogeneration plant, Symex cogeneration plant, Jackson St Landfill cogeneration, and McRobies Gully Landfill.

# **Environmental risk**

### **Noise**

The generation of noise is an unavoidable characteristic of some of AGL's business activities, notably generation of electricity, and drilling undertaken as part of coal seam gas and geothermal projects.

Additionally, many of AGL's projects involve development of rural land that is already occupied and used for other purposes by third parties. The management of noise impacts is vitally important in such settings, where background noise levels are low and amenity expectations are high.

#### **Approach**

AGL's upstream gas exploration and production projects involve drilling wells to extract methane from coal formations deep below the ground. The geology of a particular location influences the type of drilling technique involved. Sometimes drilling needs to be undertaken 24 hours per day, seven days per week. This makes drilling one of the noisiest phases of AGL's coal seam gas operations.

A number of activities are undertaken to minimise the likelihood of offsite noise impacts associated with drilling operations. Well locations are selected to avoid the likelihood of causing impacts to sensitive receivers where possible. When drill rigs are selected, consideration is given to minimising the noise footprint from the drill rig and ancillary equipment. The drill rig and equipment is orientated in a manner to minimise the noise impact. Acoustic noise barriers are installed on the drill rig where loud equipment is identified, and an acoustic noise wall can be erected on the perimeter of the site if necessary. Internal and external noise monitoring is also undertaken to ensure drilling operations remain below regulatory compliance limits.

AGL's wind farm projects are typically constructed on land that is used for agricultural purposes. A standard condition of the necessary development consent(s) is that both pre- and post-construction noise monitoring is undertaken to ensure that, once operational, the wind farm meets relevant Environmental Protection Authority (EPA) guidelines.

#### **Performance**

Despite the best efforts being taken, AGL's operations sometimes cause offsite noise impacts. During FY2011, there were two noise issues that arose in relation to AGL's operations:

- > In response to concerns of a resident in the vicinity of AGL Hallett 2 Wind Farm, noise testing undertaken in November 2010 and May 2011 identified tonality was above target at a nearby residence. AGL and the engineering contractor have modified operations to address the issue, and are working with the resident to identify a full solution. AGL is keeping the South Australian EPA informed of progress.
- > Despite active management of potential noise impacts at the Camden Gas Project, a noise complaint was received from a resident in April 2011 in relation to an AGL generator located nearby to the residence. Continuous noise loggers have been in place since drilling commenced to show compliance with noise criteria at the residence. Nevertheless, AGL installed an acoustic enclosure on the generator exhaust to further minimise the noise.

# **Environmental risk**

# Biodiversity, land management and cultural heritage

Development of energy generation and upstream gas assets often involves construction of industrial plant and facilities on land that has value for reasons of biodiversity and cultural heritage, in addition to its commercial value. AGL is committed to developing and operating its assets in an environmentally and socially responsible manner.

### **Approach**

During the development phase of projects, project teams follow a rigorous process to identify and manage any risks associated with cultural heritage and biodiversity values. A fatal flaw analysis is employed at the early stages of development projects to identify any environmental aspect, including biodiversity and cultural heritage, which may pose a significant risk to the development itself or to AGL. These projects are executed in accordance with AGL's Project Management Framework, which involves a structured 'gated' approvals process.

Most of AGL's development projects are considered under planning legislation as State-significant major projects, and therefore require comprehensive environmental impact assessments including flora and fauna studies and cultural heritage assessments.

Following development approval, projects are undertaken strictly in accordance with approved environmental management plans using established environmental management systems.

#### **Performance**

Torrens Island Power Station is an excellent example of how AGL seeks to operate in an environmentally and culturally sensitive manner. Located in a protected marine environment within proximity of Adelaide's central business district, Torrens Island Power Station is the largest power station in South Australia, supplying up to 1,280 MW of generation capacity into the electricity network.

The power station maintains an accredited ISO 14000 Environmental Management System, and is a community partner of volunteer organisations dedicated to protecting the local marine wildlife populations. AGL supports a wildlife rehabilitation facility at the power station site, where volunteer group Australian Marine Wildlife Research & Rescue Organisation (AMWRRO) provides rescue and rehabilitation support for birds, sea lions, penguins and other animals injured in and around the Torrens Island estuary. AGL and its employees donate both time and money to support the work of AMWRRO.

AGL employees have also played an active role in helping the local Kaurna people to repatriate their ancestors' remains to Torrens Island. AGL plans to develop up to 700 MW of additional peaking generation and a gas storage facility at Torrens Island. As part of the Torrens Island Energy Park project, AGL contributed over \$20,000 for the repatriation of the remains of 68 Kaurna ancestors during FY2011. Through the support provided by AGL, the Kaurna people have been able to reclaim the remains held by the South Australian Museum, gain permission from the Australian Director of National Parks for the reburial of the Kaurna ancestral remains within the Torrens Island Conservation Park, hold cultural ceremonies on Torrens Island and record the event in a documentary. In December 2010, AGL employees joined with Kaurna elders and South Australian Government representatives on Torrens Island for a traditional Sorry Ceremony to rebury the remains of their people, almost 200 years after their removal.

### **AGL Biomass Policy**

In recognition of the effect that electricity generation can have on biodiversity, AGL has published a Biomass Policy which states that AGL will not source fuel for power generation from native forest or from crops located in areas cleared of native forest after 1990. The policy is available at agl.com.au/BiomassPolicy.

# **Environmental risk**

### Waste

AGL's projects and operations produce a variety of different waste streams. Wastes represent resources that have not been used for their highest beneficial purpose.

### Approach

AGL's approach to waste is consistent with the waste management hierarchy, where the approach taken, in order of decreasing preference, is to avoid, reduce, reuse, recycle and dispose of wastes.

Waste collection processes at AGL's offices involve segregation of paper, cardboard, and common domestic recyclables such as glass, plastics, aluminium and metal tins.

At AGL's industrial sites, opportunities to reuse or recycle wastes are sought, and hazardous wastes are disposed of using regulated waste tracking systems and licensed waste management contractors.

Water-based waste streams are discharged either to sewer or to the stormwater system under licence from the relevant Water Authority or Environment Protection Authority (EPA). Discharge quality is regularly monitored to confirm compliance with regulatory requirements.

Produced water that is a by-product of upstream gas production and exploration projects is discussed separately on page 82 of this report.

#### **Performance**

#### Hazardous waste

Approximately 32% of the hazardous waste generated by AGL during FY2011 was recycled or reused. Almost all of this comprised waste oil and oily waste that can be cleaned up and reclaimed for use as an alternative fuel.

A significant proportion (70%) of the hazardous waste disposed in FY2011 was contaminated soil from Torrens Island Power Station, associated with AGL's activities to address historical soil contamination, and drill fines from Camden Gas Project.

In the late 1990s, soil excavated at Torrens Island during the decommissioning of a former soot pond was found to be contaminated with petroleum hydrocarbons, and was subsequently stored in a lined pit on-site. In 2010, the soil was removed from the site and bio-remediated before being disposed of at a licensed landfill.

The drill fines from the Camden Gas Project were used in trials which aimed to accelerate the drying of drill cuttings using sawdust material. The result of this trial was such that AGL had to dispose of the drill fines and sawdust mixture to landfill. This trial process has now ceased and, as outlined below, AGL has resumed standard drying procedures which enable suitable reuse of drill cuttings.

#### Non-hazardous waste

The majority (68%) of non-hazardous waste generated by AGL during FY2011 was drill cuttings from the Camden Gas Project, and 18% comprised 'general waste' disposed to landfill. In FY2011, 3,180 tonnes of drill cuttings from the Camden Gas Project were dried and then diverted to a Sydney-based company which cleans, screens, separates and uses the drill cuttings to make a variety of construction materials, including bricks.

### Wastewater

The majority of the wastewater discharged from AGL's operations comprises cooling water that is drawn from the Port Adelaide River, passed through the Torrens Island Power Station to cool it, and then discharged to Angas Inlet under licence from the South Australian EPA. The water is discharged at a higher temperature than it is taken in and an EPA licence sets limits on the temperature rise allowable. Cooling water thermal discharge is monitored daily, and this monitoring is verified by an external auditor every two years. The last verification took place in December 2010, with the next verification due in FY2013.



# Water management

### Introduction to water management

Australia is the driest inhabited continent. Approximately half of AGL's power generation assets and coal seam gas projects are located within water stressed areas in South Australia, Queensland and New South Wales.<sup>1</sup>

### **Approach**

As a company that operates hydro power stations and coal seam gas projects, AGL takes very seriously the responsible management of water resources – an issue of direct relevance to the business.

AGL uses water resources in various ways:

- > to produce steam in thermal power stations
- > to reduce emissions to air at some thermal power stations
- > to generate power at hydro power stations under approval from relevant water authorities
- > to cool and lubricate drill bits in coal seam gas drilling operations
- > for hygiene purposes in offices, where the bulk of AGL's 2,083 employees are located.

This water is withdrawn from a variety of sources, including from water retailers, aquifers, collected rainwater and fresh and marine surface waterbodies.

AGL also discharges run-off and process waste streams to sewer and stormwater, and produces water as an unavoidable by-product during coal seam gas exploration and production activities.

Continued growth of the Upstream Gas business is a core part of AGL's integrated business strategy. Presently, the Camden Gas Project is the only AGL-operated coal seam gas project that has progressed through the exploration phase into full scale production. AGL's projects at the Hunter Valley and the Galilee Basin are currently in exploration phase, and the AGL project at Gloucester is in development phase. These three projects can be expected to progress to full-scale production over coming years with a resultant anticipated increase in the volume of groundwater brought to the surface compared to the amount reported this year.

**Vision for water management:** AGL's vision is to be a prudent and responsible user of water that seeks to minimise the adverse impact of its operations on local water resources.

**Drivers:** Information about consumed water, produced water and managed water across AGL's sites is presented in pages 81 to 84.

#### **Performance**

AGL recognises that stakeholders are concerned about the management of water issues associated with coal seam gas projects. During FY2011 AGL developed a Produced Water Management Strategy, and over FY2012 specific Produced Water Plans will be established for each project. During FY2012, AGL will develop strategies for drill water, and fracture stimulation and flowback water. A brine water strategy is also planned. Together these four strategies form the water management framework for AGL's coal seam gas projects.

The long-term objective of the Produced Water Management Strategy is to substantially increase the proportion of produced water that is beneficially reused for environmental, industrial/commercial, mining and/or primary production purposes. The strategy identifies appropriate treatment and beneficial reuse options for produced water for each of AGL's coal seam gas projects.

AGL has established dedicated groundwater and surface water monitoring networks across its Gloucester, Hunter and Galilee coal seam gas exploration areas, and in the vicinity of its proposed natural gas storage facility at Tomago. Fifty-nine dedicated groundwater monitoring bores and nine surface monitoring locations are now operational across these four projects (Hunter, Gloucester, Galilee and Tomago). Additional monitoring locations are planned for these projects and at Camden and Camden North in coming years. Refer to page 82 for further information.

Results to date from AGL's dewatering program at the Hunter and Camden Gas Projects suggest that groundwater in deep coal seams in the coal seam gas project areas is isolated from water resources in shallow aquifers and streams, and no water level declines or water quality impacts have occurred due to AGL's exploration activities.

### Note

1 As defined in the World Business Council for Sustainable Development Global Water Tool 2010.

# Water management

### **Consumed water**

Water is an essential resource for AGL's operations. AGL operates in regions where water restrictions are common, and seeks to minimise water consumption where possible.

### Approach

AGL consumes water for a variety of purposes. AGL's largest consumptive uses of water are outlined below:

- > AGL's largest consumer of water is the Torrens Island Power Station, where water is consumed in the production of steam. Around 90% of the water used at this power station is sourced from a deep aquifer located approximately 130 metres below the site. This saline water is passed through a reverse osmosis unit and a demineralisation process to remove salts prior to use in the power generation process.
- > Cooling water is required at the Hydrocarbon Extractions Plant to cool the process that takes Caltex Refinery waste fuel gas to extract LPG and Naphtha.
- > At Somerton Power Station, water is injected into the combustion chamber to reduce emissions of nitrogen oxides from the plant.
- > At Upstream Gas exploration and production projects, water is used to lubricate and cool drill bits during drilling operations.
- > Water is essential at all of AGL's offices for provision of basic amenities.

#### **Performance**

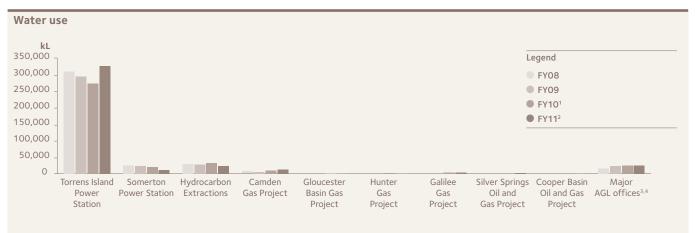
In FY2011, approximately 64% of the water consumed at AGL's sites comprised groundwater drawn from beneath the Torrens Island Power Station, while 35% comprised potable water purchased from retail water suppliers. The remaining 1% consisted of a number of other water sources such as recycled water purchased from other organisations and harvested rainwater.

In addition, AGL makes important non-consumptive use of water resources. This is discussed separately under 'Managed Water' on page 84.

For power generation assets, the amount of water consumed is proportional to the amount of power generated over a particular time period. As Torrens Island Power Station consumes the largest amount of water of all AGL's operated assets, total water use is strongly influenced by the power generated by this asset in a given year.

Power output was up at Torrens Island Power Station in FY2011 compared to the two preceding years and this is reflected in water consumption data. Power output at Somerton Power Station during FY2011 was down compared to previous years and the water consumption data reflects this decrease.

In recognition of the need to use water sustainably across coal seam gas operations, AGL will prepare water management strategies during FY2012 for drill water, and fracture stimulation/flowback water. These strategies will sit alongside AGL's Produced Water Management Strategy and, together with a Brine Water Management Strategy, form AGL's overarching water management framework for coal seam gas projects.



### Notes

- 1 FY2010 was the first full year that the Gloucester, Hunter and Galilee coal seam gas exploration projects have been owned and operated by AGL and so there is no water consumption data available for preceding years.
- by AGL and so there is no water consumption data available for preceding years.

  2 AGL took ownership of Silver Springs and Cooper Basin assets in October 2010. Full FY2010 data for these assets is provided.
- 3 In FY2011, major AGL offices included North Sydney (NSW), Canberra (ACT), Brisbane (QLD), Spencer Street and Collins Street offices in Melbourne and East Burwood (VIC) and Eastwood (SA)
- 4 Where office buildings are occupied by multiple tenants, AGL's water consumption has been estimated based on property management data for the building, pro-rated to reflect the amount of building floor space occupied by AGL.

# Water management

### **Produced water**

Deep groundwater is brought to the surface (or 'produced') as an unavoidable by-product of coal seam gas exploration and production activities.

### **Approach**

Community and government stakeholders are increasingly focused on the potential loss of water resources and contamination of ground or surface water arising from the activities of Australia's coal seam gas industry. At AGL, water management is a key component of coal seam gas exploration and production projects, and all of AGL's coal seam gas activities are designed to have a minimal impact on the environment and to protect water resources.

The extraction of gas from coal formations involves the drilling of gas production wells into the earth (typically several hundred to around one thousand metres deep), stimulating the coal formation, and allowing gas to flow to the surface. Before the gas can be brought to the surface, water that exists within the coal formation must first be removed so that the gas can 'flow' and be extracted. This is known as dewatering.

The quantity of coal seam gas produced water varies depending on the location of the project and also the stage of the production cycle of any given well. Some locations, due to the inherent characteristics of the geology, produce greater volumes of coal seam gas water per well than similar scale projects located elsewhere.

As a project moves from the exploration stage to the production stage, the number of wells increases substantially. The total volume of water removed from the coal formations increases in the initial years then decreases again as the wellfield reaches maturity. Currently, only AGL's Camden Gas Project in New South Wales is in commercial production stage. Into the future, as some of AGL's exploration projects move into production stage (such as the Hunter, Gloucester and Galilee gas projects), the volume of coal seam gas produced water from AGL's operations will increase.

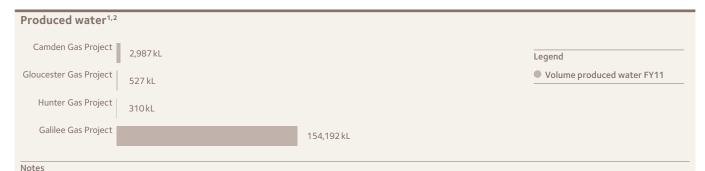
The quality of the coal seam gas water also varies depending on the location. AGL operates the Camden Gas Project (Sydney Basin), and has exploration underway in the Hunter (Sydney Basin), south of Gloucester (Gloucester Basin) and near Longreach (Galilee Basin). Produced water varies from low salinity (for example in the Galilee Basin) to moderate salinity in some locations such as in the Hunter and at Camden and Gloucester. The salinity of produced water is generally less than one-third that of seawater. It is safe to use for a variety of purposes (most of which require some blending or treatment to reduce the salinity hazard).

In FY2011, AGL developed a Produced Water Management Strategy, in recognition of the need to protect surface water and groundwater resources and to reuse water sustainably across AGL's coal seam gas operations. The long-term objective of the Strategy is to substantially increase the proportion of produced water that is beneficially reused for environmental, industrial/commercial, mining and/or primary production purposes. During FY2012, produced water management plans will be developed and implemented for each of the four AGL-operated coal seam gas projects.

Industry best practice well construction techniques are used to prevent shallow aquifers from being connected to the deep coal seam gas water bearing zones. AGL has dedicated groundwater monitoring networks to test the water level and the water quality characteristics of shallow aquifers used for water supply, to identify any changes during coal seam gas exploration and production programs. Surface water monitoring is also in place where there are sensitive creek/river receptors nearby.

Groundwater monitoring networks were initially established in the Hunter Gas Project during FY2009, and during FY2011, the monitoring networks were expanded to cover groundwater and surface water at the Gloucester and Galilee exploration areas, and the vicinity of the proposed natural gas storage facility at Tomago. Further monitoring bores were also drilled for the Hunter Gas Project during FY2011. Fifty-nine dedicated groundwater monitoring bores and nine surface monitoring locations are now operational across these four projects (Hunter, Gloucester, Galilee and Tomago). Additional monitoring locations are planned for these projects and at Camden and Camden North in coming years.

Results to date from AGL's dewatering program at the Hunter and Camden gas projects suggest that groundwater in deep coal seams in the coal seam gas project areas is isolated from water resources in shallow aquifers and streams, and no water level declines or water quality impacts have occurred due to AGL's exploration or production activities.



- 1 Produced water comprises natural groundwater generated from coal seams during flow testing and production dewatering. It does not include other water streams (drill water fracture stimulation (flowback water and bring water) that usually require superity water management.
- water, fracture stimulation/flowback water and brine water) that usually require separate water management.

  2 Monitoring data for water production levels is provided for Gloucester, Hunter and Galilee gas projects. Produced water data for Camden Gas Project is calculated from recorded volumes removed from the well sites.

# Water management

#### **Performance**

The volume of water produced at each of AGL's coal seam gas projects is monitored. The greatest volume is being produced at the Galilee Project which, despite only being in exploration stage, is located within a geological basin that is characterised by high formation permeabilities and groundwater yields. The number of wells flow-tested at the Galilee Project area in FY2011 was five, compared to the Camden Gas Project which had 142 wells installed as at end FY2011, of which 80 were operational and producing gas.

The total volume of water produced during FY2011 at all project sites was around 158 ML. In FY2011, produced water was either stored on-site in lined, aboveground holding ponds; reused in well drilling; or transported off-site for reuse.

During FY2011, approximately 0.5 ML of water produced from coal seam gas activities was reused for well drilling at the Camden Gas Projects. Around 6 ML of water was transported off-site for disposal. During FY2010 irrigation of pasture was conducted using water produced from coal seam gas activities as irrigation water on an AGL property associated with the Gloucester Gas Project. No irrigation occurred in FY2011 as the irrigation approval lapsed, however AGL plans to expand the irrigation area and to commence an irrigation trial following the renewal of approvals from the NSW Department of Trade and Investment, Regional Infrastructure and Services, the Office of Environment and Heritage, and endorsement from the Department of Primary Industries.

The Produced Water Management Strategy developed during FY2011 identifies potential reuse options for the Camden, Hunter, Gloucester and Galilee Gas Projects. During FY2012 AGL will continue with the program of work to execute the beneficial reuse of produced water.

In addition to the water produced at AGL's coal seam gas projects, during FY2011, 123 ML of water was produced at Silver Springs and Fairymount Oil and (conventional) Gas Project.

In July 2010, AGL released some slightly saline groundwater into a paddock at an AGL property at Bulga, as part of the groundwater investigation program. All of the water was disposed of in accordance with AGL's water bore licence issued by the New South Wales Office of Water under the Water Act 1912 (NSW). Refer to page 40 for further details.

# Water management

# Managed water

In addition to the consumption of water resources, AGL also makes important non-consumptive use of water, including water drawn from the Port Adelaide River to cool the Torrens Island Power Station, and the water that is passed through hydro power stations. AGL takes its responsibilities as short-term steward of water resources seriously and manages this carefully.

### **Approach**

AGL's use of water for cooling purposes at Torrens Island Power Station is regulated by its Environment Protection Authority licence. The average temperature increase from the cooling water inlet to the cooling water outlet is required to be less than 10°C. An external consultant audits and validates compliance with this requirement on a two-yearly basis. The last audit report was issued in December 2010, and found AGL to be compliant with requirements.

AGL's hydro power generation assets are located across Victoria and New South Wales. The different assets/schemes operate under different water release arrangements as described below:

- > Mountain Streams Scheme (Royston, Rubicon, Lower Rubicon and Rubicon Falls power stations) and the Kiewa Scheme (Bogong, McKay Creek, Clover and West Kiewa power stations), Victoria AGL holds non-consumptive bulk water entitlements with the Victorian Department of Sustainability and Environment (DSE) to use all inflows to the catchment for power generation at its power station assets. The entitlement sets minimum and maximum water flows and rates of change of releases, although AGL has discretion within these boundaries as to how and when water is released within the
- > Dartmouth and Eildon, Victoria AGL holds water agreements with Goulburn Murray Water (GMW) to generate electricity from all irrigation releases from these storage dams which are owned and operated by GMW. AGL owns regulating pondage downstream of these power stations. Under the water agreements, GMW specifies what flows it wants in the river system downstream of AGL's pondage and so using its pondages, AGL has some flexibility in how this is achieved. Under the water agreements AGL has an entitlement to use a specified volume of water outside of the irrigation season. GMW must be notified of any such releases so they can allocate the water appropriately to users downstream.
- > Cairn Curran and Yarrawonga, Victoria AGL holds water agreements with GMW to generate electricity from all irrigation releases from these storage dams which are operated by GMW.
- > Pindari, Copeton, Burrendong and Glenbawn power stations, New South Wales AGL operates these power stations under a water agreement with New South Wales State Water that entitles AGL to generate electricity from all irrigation releases of water from the storages. The release of water is dictated by the needs of irrigators, not AGL, although AGL has the right to produce power from any irrigation releases.

Where AGL has discretion for releases of water (i.e. where water release is not dictated by irrigation needs), potential environmental impacts are managed by controlling river discharges to within the agreed rates of rise and fall and minimum and maximum flow rates as specified by the relevant authority or agency.

An important annual activity undertaken in the Mountain Streams and Kiewa schemes is desilting of some of the storages and dams to maintain capacity and, in turn, the operating flexibility within the schemes. An environmental working group, (comprising AGL, the Environment Protection Authority Victoria, Victorian DSE, Parks Victoria, Victorian Department of Primary Industries, local catchment authorities and the Freshwater Ecology section of the Arthur Rylah Institute for Environmental Research), meets annually to review processes, monitoring data and the annual works program. To minimise the environmental impact of the desilting operations, the activity is conducted during higher flow winter months. Silt is removed by both direct flushing into the river system and by excavation. Environmental parameters agreed by the desilting working group are monitored at a variety of downstream locations at a frequency of 15 minutes to one hour depending on location. This process has been undertaken for more than 10 years and annual studies indicate that there have been no detectable impacts on the ecology of the river system, as indicated by long-term monitoring of macro-invertebrates and blackfish undertaken by the Freshwater Ecology section of the Arthur Rylah Institute for Environmental Research at DSE for AGL.

### Performance

During FY2011, AGL made non-consumptive use of approximately 666 GL of water drawn from the Port Adelaide River to cool the Torrens Island Power Station, an almost 20% increase compared to FY2010. Over the same period, generation from the Torrens Island Power Station increased by 10%.

Over 4,000 GL of water passed through hydro power stations during FY2011, compared to 466 GL in FY2010. The significant increase can be attributed to unseasonably high rainfall experienced across relevant catchments in Victoria, and indeed much of the north and east coast of Australia. Bureau of Meteorology data indicates that during calendar year 2010, Victoria experienced its fifth wettest year on record<sup>1</sup>.

Increased water flows through AGL's hydro power stations during FY2011, particularly associated with the flood events in September and December 2010, have resulted in increased volumes of silt removed during FY2011. During FY2011, 40,000 cubic metres of silt were removed from the Rubicon/Kiewa Hydro Scheme.

### Note

 $1\ bom.gov. au/announcements/media\_releases/climate/change/20110105. shtml.$ 





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### INDEPENDENT ASSURANCE STATEMENT

To the Board of Directors and Management of AGL Energy:

AGL Energy Limited (AGL) commissioned Net Balance Management Group Pty Ltd (Net Balance) to provide independent assurance over the AGL Sustainability Performance Report 2011 and the top 12 sustainability targets as specified within the 2011 AGL Energy Annual Report (the Reports). The Reports present AGL's sustainability performance over the period 1 July 2010 to 30 June 2011. AGL was responsible for the preparation of the Reports and this Statement presents the assurance provider's independent opinion. Net Balance's responsibility in performing its assurance activities is to the Board and Management of AGL in accordance with the terms of reference agreed with them. Other stakeholders should perform their own due diligence before taking any action as a result of this Statement.

### **Assurance Standard and Objectives**

The assurance was undertaken in accordance with the AA1000 2008 Assurance Standard (AA1000AS). The standard provides a comprehensive way of ensuring an organisation is responsible for its management, performance and reporting on sustainability issues. This is achieved by evaluating the organisation's adherence to the AA1000 AccountAbility Principles (2008) and by reviewing the accuracy and quality of disclosed sustainability performance information.

The AA1000 Accountability Principles (2008) used to assess AGL's processes include:

**Inclusivity:** How does the organisation include stakeholders in developing and achieving an accountable and strategic response to sustainability?

**Materiality:** How does the organisation include in its report the material (most important) information required by its stakeholders to make informed judgements, decisions and actions?

Responsiveness: How does the organisation respond to stakeholder concerns, policies and relevant standards and adequately communicate these in its report?

### **Assurance Type and Scope**

Net Balance provided 'Type 2' assurance in accordance with the AA1000AS (2008). This involved assessing the organisation's adherence to the AA1000 AccountAbility Principles (2008) and assessing the accuracy and quality of the sustainability information contained within the Reports. This year, Net Balance also conducted a detailed audit of AGL's Lost Time Injuries, Lost Time Injury Frequency Rate, Medical Treatments and Medical Treatment Injury Frequency Rate.

### **Assurance Level and Limitations**

The level of assurance provided is 'moderate' as defined by the scope and methodology described in this Assurance Statement. The assurance focused on AGL's systems and activities for the reporting period with the following exceptions:

- Net Balance did not verify financial data, other than that specifically relating to environmental, social or broader economic performance.
- Net Balance did not verify information within the Annual Report other than that relating to the top 12 sustainability targets.
- Net Balance did not conduct any site visits other than to AGL's head office in North Sydney. The majority of interviews with data owners were conducted face-to-face and, where required, by video conference or telephone.
- Net Balance provided assurance of the Equity and Supply greenhouse gas emissions not reported under the NGER Legislation. Assurance of Scope 1 and 2 greenhouse gas emissions reportable under the National Greenhouse and Energy Reporting (NGER) Legislation was undertaken by another external auditor. This work was not replicated and Net Balance's opinion in the area of greenhouse gas emissions relies, in part on the assurance opinion issued by the other party.



### **Assurance Methodology**

The assurance engagement was undertaken during June to October 2011, and involved:

- Preparation of a materiality register (listing material sustainability issues) using the AA1000SES
  'Five-Part Materiality Test'. This included a comparison of AGL against its peers, a risk review, a
  review of selected reports published in the Australian media during the reporting period and a
  review of AGL's management policies.
- Interviews with the Managing Director and Chief Executive Officer, Chief Economist and Head of Corporate Affairs, Head of Upstream Gas, Company Secretary, Head of Risk, and Head of Government and Community Engagement, to determine the extent to which sustainability is integrated within the organisation.
- A review of stakeholder engagement activities undertaken by AGL during the reporting period and how this informs AGL's sustainability strategy and operational performance.
- Interviews with key personnel responsible for collating and writing various parts of the Reports to substantiate the reliability of selected claims.
- A review of the Reports for any significant anomalies, particularly in relation to claims as well as trends in data.
- Verification of 107 selected data points and statements and the systems and processes that are purported to support the data.
- A Global Reporting Initiative (GRI) G3.0 Application Level assessment.

### **Our Independence**

Net Balance was not responsible for preparing any part of the Reports. Our team's independence was ensured by selecting members with no other involvement with AGL during the reporting period that could impair the team's independence or objectivity.

### **Our Competency**

The AGL assurance engagement was carried out by an experienced team of professionals led by a Lead Sustainability Assurance Practitioner (Lead CSAP), accredited by the International Register of Certified Auditors UK (IRCA UK). The project included personnel with expertise in environmental, social and economic performance measurement across a range of industry sectors. Net Balance is a global leader in the use of Accountability's AA1000AS, having undertaken over 100 assurance engagements in Australia in the last five years.

### **Findings and Conclusions**

### Adherence to AA1000 Principles

### Inclusivity:

AGL has diverse stakeholders and multiple processes in place for engaging stakeholders. This year, Net Balance observed improved internal stakeholder engagement and cross-functional collaboration of ideas and processes in developing community engagement plans and environmental risk registers for Merchant Energy and Upstream Gas. In addition, there was evidence of collaboration by Group Risk with each of the business units to improve the consistency in application of the corporate risk framework. There was evidence of process improvement for identifying risks and for escalating these to the corporate risk register where considered appropriate. Building on from these improvements, Net Balance recommends the next step be to seek input from external stakeholders on identifying and managing risks, particularly on 'best practice' community engagement and for identifying meaningful indicators to measure the effectiveness of AGL's engagement activities.

### Materiality

Net Balance found AGL addressed their sustainability material issues including, but not limited to, managing the impacts of climate change and policy uncertainty, increased environmental disclosures for water and waste, stakeholder engagement particularly at the community level and customer service results. The process used by AGL to identify material issues is considered effective and consolidates information from a variety of sources and stakeholder groups to ensure pertinent material issues are covered. In the next report, Net Balance would like to see the improved disclosures on AGL's procurement policies and supporting management practices, particularly the inclusion of sustainability and human rights in investment decision making processes and outsourced operations.



#### Responsiveness:

AGL is committed to responding to issues raised by stakeholders and there was evidence of appropriate processes in place for this. During the reporting year, AGL responded to two key recommendations from the 2010 Assurance Statement: implementing a community engagement framework and; improving the management of community investment data. In addition, AGL also appointed a Head of Government and Community Engagement to work collaboratively with the business units to improve engagement activities at a project level and to build and maintain a social licence to operate. Whilst these are noteworthy improvements, Net Balance would also like to see AGL respond to a recommendation made in previous assurance statements to improve the system for reporting environmental performance from the site level to the corporate level including water, waste and noise.

#### **Reliability of Performance Information**

Based on the scope of the assurance process, the following was observed with regard to performance information:

- The findings of the assurance engagement provide confidence in the systems and processes used for managing and reporting sustainability performance information.
- The level of accuracy of sustainability performance information was found to be within acceptable limits
- Data trails selected were generally identifiable and traceable, and the personnel responsible were able to reliably demonstrate the origin(s) and interpretation of data.
- The sustainability performance disclosures presented within the Reports appropriately reflect environmental, social and economic performance achieved during the period.
- The GRI application level check found that the Reports were classified as 'A+'.

Overall, it is Net Balance's opinion the information presented within the Reports is fair and accurate. The report was found to be a reliable account of AGL's sustainability performance during the reporting period.

### The Way Forward

Net Balance found the Reports appropriately address AGL's environmental, social and economic material issues. To ensure AGL continues to improve, Net Balance has identified the following key areas for improvement:

Industry approach to coal seam gas

Net Balance believes that AGL, as a leader in sustainability, has a key role to play as a leader in engaging the industry and government in facilitating further improvements to understanding the science of coal seam gas exploration and extraction. In addition, Net Balance recommends AGL also plays a role in raising the minimum standard of community engagement and environmental performance of the industry. As part of this role, Net Balance suggests AGL: (a) conducts a review of best practice in community engagement and 'outrage' management; (b) engage at a strategic level with external stakeholders such as industry groups, environmental non-government organisations and community groups. Net Balance believes these actions would provide valuable insights into managing tensions between community and industry in meeting the future energy needs of Australia.

Measuring community engagement outcomes

Net Balance recommends AGL investigates additional performance indicators for measuring the effectiveness of community engagement activities and outcomes. There is evidence AGL has made improvements to their approach toward community engagement through a Community Engagement Framework, Community Engagement Plans and appointing a Head of Government and Community Engagement. Net Balance believes there is further work required for AGL to identify meaningful indicators for measuring AGL's effectiveness of community engagement activities and the potential benefits to community of its exploration and operational activities. Indicators may include social infrastructure, community wellbeing, transparency and disclosure, indigenous rights and cultural heritage.



### Environmental data management and reporting

- Net Balance recommends AGL improves environmental data management and reporting. Environmental data such as water, waste and noise data is currently captured by individual sites and collated at a corporate level in Microsoft Excel. Whilst AGL has documented data procedures and templates for reporting data at a corporate level, there is evidence the procedures and templates are no longer effective as they do not provide a consistent and reliable audit trail. Net Balance believes there are two areas to focus on for AGL: (a) improving the quality and timeliness of data provided at a site level to corporate for sustainability reporting and (b) improving the systems for reporting and managing environmental data with consideration for an on-line data collection system. This will help to streamline corporate environmental reporting and ensure consistent and accurate reporting of data year on year.
- Net Balance also recommends AGL expands the scope of the assurance engagement to include site level systems for capturing and reporting environmental data. This will help to assess the quality of systems at a site level and identify potential areas for improvement.

### Safety systems

Net Balance recommends AGL improves the system and processes for managing lost time injuries (LTIs), medical treatment injuries (MTIs) and workers compensation claims. Net Balance identified a number of ways in which the current systems and processes could be improved to reduce the potential for error. These include: improving use of the existing functionality of SAP to attach supporting documentation; improving the functionality of spreadsheets to monitor LTIs and MTIs; and conducting end-of-month reviews between systems. In addition, Net Balance suggests AGL updates written procedures to include managing workers compensation claims to help the transfer of knowledge in times of employee turnover.

On behalf of the assurance team 31 October 2011 Melbourne, Australia

Terence Jeyaretnam, FIEAust Director, Net Balance & Lead CSAP (IRCA UK)





### Verification Statement from LBG Australia/New Zealand

We have reviewed AGL's application of the London Benchmarking Group (LBG) model to measure and report on corporate community involvement activity.

The LBG model helps businesses improve the measurement, management and reporting of their corporate community investment programs. It covers the full range of contributions (cash, time and in-kind donations) made to community causes, and assesses the results achieved for the community and for the business.

As managers of LBG Australia/New Zealand, we have worked with AGL to review its understanding and application of the LBG model in respect of the wide range of community programs supported. Our aim has been to ensure that the evaluation principles have been correctly and consistently applied.

It should be noted having completed an assessment, 10% of the material items identified for verification had insufficient supporting documentation. We would ask this to be reflected in any public reporting. Our work has not extended to an independent audit of the data.

**Yvonne Choong LBG Manager** 

September 2011



		Location of disclosure	
Ref.	Description	within report	Additional information
Strategy an	d analysis		
1.1	Statement from the most senior decision maker of the organisation about the relevance of sustainability to the organisation and its strategy.	Annual Report Page 6, 8	-
1.2	Description of key impacts, risks and opportunities.	Annual Report Page 11	-
Organisatio	nal Profile		
2.1	Name of the organisation.	Page 6	-
2.2	Primary brands, products and/or services.	Page 2	-
3	Operational structure of the organisation, including major divisions, operating companies, subsidiaries and joint ventures.	Page 2	-
4	Location of the organisation's headquarters.		North Sydney, NSW, Australia
2.5	Number of countries where the organisation operates, and the names of countries with either major operations, or that are specifically relevant to the sustainability issues covered in the report.	Page 6	_
2.6	Nature of ownership and legal form.	Page 6	-
2.7	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries).	Page 19	-
2.8	Scale of reporting organisation, including: number of employees; net sales (for private sector organisations) or net revenues (for public sector organisations); total capitalisation broken down in terms of debt and equity (for private sector organisations); and quantity of products or services provided.	Page 2, 24, 55	
2.9	Significant changes during the reporting period regarding size, structure or ownership including: the location of, or changes in, operations including facility openings, closings and expansions, and changes in the share capital structure and other capital formation, maintenance and alteration operations (for private sector organisations).	Page 2, 3	-
2.10	Awards received in the reporting period.	Annual Report Page 11	-
Report Para	meters		
3.1	Reporting period for information provided.	Page 6	_
3.2	Date of most recent previous report (if any).	Page 6	-
.3	Reporting cycle (annual, biennial, etc).	Page 6	-
3.4	Contact point for questions regarding the report or its contents.	Inside front cover	-
3.5	Process for defining report content, including: determining materiality, prioritising topics within the report and identifying stakeholders the organisation expects to use the report. Include an explanation of how the organisation has applied the 'Guidance on Defining Report Content' and the associated Principles.	Pages 6, 7, 12, 13, 14	
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	Page 6	-
.7	State any specific limitations on the scope or boundary of the report.	Page 6	-
8.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organisations.	Page 6	-
3.9	Data measurement techniques and the basis of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	Page 6, 67	Additional information disclosed on a case-by-case basis.
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such restatement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	-	Disclosed on a case-by-case basis where re-statements are required.
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Page 6	-
.12	Table identifying the location of the Standard Disclosures in the report.	GRI Index	-
3.13	Policy and current practice with regard to seeking external assurance for the report.	-	It is AGL's intention to continue to have future Sustainability Reports assured to the AA1000 Assurance Standard and/or ISAE 3000 Standard.

			Core Additional * esaa Sustainable Practice Framework
Ref.	Description	Location of disclosure within report	Additional information
Governance	, commitments and engagement		
4.1*	Governance structure of the organisation, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organisational oversight.	Page 10	-
4.2*	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organisation's management and the reasons for this arrangement).	Annual Report Page 35	
4.3*	For organisations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	Annual Report Page 42	-
4.4*	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Annual Report Page 40	-
4.5*	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organisation's performance (including social and environmental performance).	Annual Report Page 49, 50, 51, 52, 53, 59	
4.6*	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Annual Report Page 34	-
4.7*	Processes for determining the qualifications and expertise of the members of the highest governance body for guiding the organisation's strategy on economic, environmental and social topics.	Annual Report Page 35	-
4.8*	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Page 10, 11	-
4.9*	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct and principles.	Annual Report Page 37	_
4.10*	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental and social performance.	Annual Report Page 35	-
4.11*	Explanation of whether and how the precautionary approach or principle is addressed by the organisation.	Page 72	AGL's Environmental Principles are available at: agl.com.au/EnvironmentalPrinciples.
4.12*	Externally developed economic, environmental and social charters, principles or other initiatives to which the organisation subscribes or endorses.	-	AGL is a signatory to the Energy Supply Association of Australia's Sustainable Practice Framework.  AGL is a founding member of the London Benchmarking Group Australia and New Zealand.
4.13	Memberships in associations and/or national/international advocacy organisations in which the organisation: has positions in governance bodies, participates in projects or committees, provides substantive funding beyond routine membership dues or views membership as strategic.	Page 12, 13, 14	-
4.14*	List of stakeholder groups engaged by the organisation.	Page 12, 13, 14	-
4.15*	Basis for identification and selection of stakeholders with whom to engage.	Page 12, 13, 14	-
4.16*	Approaches to stakeholder engagement including frequency of engagement by type and by stakeholder group.	Page 12, 13, 14	-
4.17*	Key topics and concerns that have been raised through stakeholder engagement and how the organisation has responded to those key topics and concerns, including through its reporting.	Page 12, 13, 14	-

Environment chapter  Customer				Core
Example	Ref.	Description		Additional information
Find the procure of market presence are found within the Economic chapter, under the Approach Reading on the Very Paper.  For deductive on management approaches for energy and the Very Paper.  For deductive on management approaches for energy and the Very Paper.  For deductive on management approaches for energy and the Very Paper.  For deductive on management approaches for energy and the Very Paper.  For deductive on management approaches for energy and the Very Paper.  For deductive on the Very enables of Paper and Very enables o	Management D	isclosures		
Environment chapter  Customer	_	Economic.	Economic chapter	<b>performance</b> and <b>market presence</b> are found within the Economic chapter, under the 'Approach' heading on
Human rights.  People chapter    Disclosures on management approaches are contained with the approach's section of relevant pages in the People chapter (Introduction Sovernance and Management approaches are contained with the approach section of relevant pages in the People chapter (Introduction Sovernance and Management approaches are contained with the suppread Section of relevant pages in the People chapter (Introduction Sovernance and Management approaches are contained within the Community and pagement approaches refer to relevant pages of the Customer chapter.  Performance Indicators    Installed capacity, broken down by primary energy source and by regulatory regime.   Page 4, 5, 68   —	-	Environmental.	Environment chapter	management approaches for: materials; water; biodiversity; emissions; effluents and waste; compliance; transport and overall.  See the pages within the Customer chapter which describe energy efficiency and renewable energy products and services, for disclosures on the environmental impacts
the 'approach' section of relevant pages in the People chap Introduction Introduction Sovernance and management Through the Apple of the Community chapter Introduction Sovernance and management Through the Community chapter Introduction Sovernance and Through the Community chapter Through the Community ch	_	Labour practices.	People chapter	Disclosures on management approaches are contained within the 'approach' section of relevant pages in the People chapter.
Introduction   Provided and page   Provided	-	Human rights.	People chapter	Disclosures on management approaches are contained within the 'approach' section of relevant pages in the People chapter.
the Community chapter.  Product responsibility.  Customers chapter  For disclosures on management approaches refer to relevant pages of the Customer chapter.  Performance Indicators  EU1 Installed capacity, broken down by primary energy source and by regulatory regime.  EU2 Net energy output broken down by primary energy source and by regulatory regime.  EU3 Number of residential, industrial, institutional and commercial Page 19  EU4 Length of above and underground transmission and distribution Page 2  Allocation of CO <sub>2</sub> emissions allowances or equivalent, broken down by carbon trading framework.  EU5 Allocation of CO <sub>2</sub> emissions allowances or equivalent, broken down by carbon trading framework.  EU6 Direct economic value generated and distributed, including revenues, operating, costs, employee compensation, donations and payments to capital providers and opportunities for the organisation's activities due to climate benefit plan obligations.  EC2* Financial implications and other risks and opportunities for the organisation's activities due to climate benefit plan obligations.  EC3 Coverage of the organisation's defined benefit plan obligations.  EC4 Significant financial assistance received from government.  - AG1 received no significant financial assistance received from government.  - AG2 received no significant financial assistance received from government.  - AG2 received no significant financial assistance from	-	Society.	Introduction > Governance and	Disclosures of management approach for <b>corruption</b> , <b>public policy</b> , <b>anti-competitive behaviour</b> , and <b>compliance</b> are contained within the Governance and Management pages of the report.
Performance Indicators  EU1				<b>Community</b> management disclosures are contained within the Community chapter.
Installed capacity, broken down by primary energy source and by regulatory regime.   Page 4, 5, 68   -	-	Product responsibility.	Customers chapter	For disclosures on management approaches refer to relevant pages of the Customer chapter.
by regulatory regime.  EU2 Net energy output broken down by primary energy source and by regulatory regime.  EU3 Number of residential, industrial, institutional and commercial customer accounts.  EU4 Length of above and underground transmission and distribution lines by regulatory regime.  EU5 Allocation of CO <sub>2</sub> e emissions allowances or equivalent, broken down by carbon trading framework.  EU5 Allocation of CO <sub>2</sub> e emissions allowances or equivalent, broken down by carbon trading framework.  EC1* Direct economic value generated and distributed, including revenues, operating, costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and opportunities for the organisation's activities due to climate change.  EC2* Financial implications and other risks and opportunities for the organisation's activities due to climate change.  EC3 Coverage of the organisation's defined benefit plan obligations.  EC4 Significant financial assistance received from government. — AGL received no significant financial assistance from  AGL received no significant financial assistance received from government.  Page 19	Performance In	dicators		
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EU4 Length of above and underground transmission and distribution Page 2 Not applicable. AGL does not control, own or operate any electrical transmission or distribution businesses.  EU5 Allocation of CO <sub>2</sub> e emissions allowances or equivalent, broken down by carbon trading framework.  Page 70 AGL participated in the Chicago Climate Exchange (CCX) ur 31 December 2010.  As well as participant in the New South Wales Greenhouse Gas Abatement Scheme (GGAS) where NSW Greenhouse Gas Abatement Certificates are created through projects or purchased on the market for compliance.  Data on AGL's CCX AGL is a benchmark participant in the New South Wales Greenhouse Gas Abatement Certificates are created through projects or purchased on the market for compliance.  Data on AGL's CCX AGL is a does not control, own or operate any electrical transmission or distributed. As well as participant in the New South Wales Greenhouse Gas Abatement Certificates are created through projects or purchased on the market for compliance.  Data on AGL's CCX AGL is a benchmark participant in the New South Wales Greenhouse Gas Abatement Certificates are created through projects or purchased on the market for compliance.  Data on AGL's CX AGL is a benchmark participant in the New South Wales Greenhouse Gas Abatement Certificates are created through projects or purchased on the market for compliance.  Page 23  Page 23  C2*  Financial implications and other risks and opportunities for the organisation's activities due to climate change.  EC2*  Financial implications and other risks and opportunities for the organisation's activities due to climate change.  Coverage of the organisation's defined benefit plan obligations.  - Australian law requires 9% of salary to be contributed by employers to complying superannuation contributions all employees and complies with the statutory requirement contribute an inimum of 9% of salary.  AGL's obligations to pay pensions under the superannuation contribution funds, and 10.4% in defined penefit fund.	EU2		Page 62	_
Bines by regulatory regime.   electrical transmission or distribution businesses.	EU3		Page 19	-
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available at cdproject.net.  EC1*  Direct economic value generated and distributed, including revenues, operating, costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.  EC2*  Financial implications and other risks and opportunities for the organisation's activities due to climate change.  Coverage of the organisation's defined benefit plan obligations.  Coverage of the organisation's defined benefit plan obligations.  Australian law requires 9% of salary to be contributed by employers to complying superannuation funds on behalf of their employees. AGL makes superannuation contributions all employees and complies with the statutory requirement contribute a minimum of 9% of salary.  AGL's obligations to pay pensions under the superannuation plan are met directly through the fund, and maintained separately from the resources of the organisation. 89.6% of employees are in defined contribution funds, and 10.4% in a defined benefit fund.  EC4  Significant financial assistance received from government.  — AGL received no significant financial assistance from				Abatement Certificates are created through projects or purchased on the market for compliance.  Data on AGL's CCX allocations and GGAS is also available in
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				separately from the resources of the organisation. 89.6% of employees are in defined contribution funds, and 10.4% in a
	EC4	Significant financial assistance received from government.		
EC5 Range of ratios of standard entry level wage compared to local – Not disclosed. minimum wage at significant locations of operation.	EC5		-	Not disclosed.

		Location of disclosure	
Ref.	Description	within report	Additional information
EC6	Policy, practices and proportion of spending on locally based suppliers at significant locations of operation.	Page 23, 38	AGL does not have a specific policy mandating the use of locally based suppliers. AGL chooses the supplier who is most appropriate for the job, and this often includes local suppliers. The Hallett Wind Farms Economic Assessment, completed in FY2010, highlights the significant local and regional spend.
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	-	AGL's recruitment practice is to ensure that it hires people who are the best fit for the role. In the majority of cases we look to the local community first when hiring people from outside AGL.
EC8*	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in kind or pro bono engagement.	Page 35, 37, 38, 39, 40, 41	AGL operates information centres in Burra (in the Hallett region of South Australia, where AGL operates a number of wind farms), and the Hunter Customer Service and Information Centre in Singleton.
			During FY2011 AGL continued roll out of satellite dishes and receivers to residents within the Hallett community who neighbour wind farms that are either in development, construction or operation.
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Page 23, 32, 33	-
EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime.	Page 2, 3, 17, 68	_
EU11*	Average generation efficiency of thermal plants by energy source and by regulatory regime.	_	The efficiency curves for Torrens Island (A & B) Power Station (TIPS), both actual and target are depicted below. TIPS represents 50% of AGL's installed capacity (by operational control).
	AGL Torrens Island A Station average	AGL Torrens Island	
	efficiency FY2011 and Generator Efficiency Standards (GES) best practice target vs unit output		and Generator Efficiency est practice target vs
	Standards (GES) best practice target vs	Standards (GES) be	
	Standards (GES) best practice target vs unit output	Standards (GES) be unit output  % 36 34 34 30 28 28 26 24	est practice target vs
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EU12*	Standards (GES) best practice target vs unit output  % 36 34 4 30 8 26 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Standards (GES) be unit output  % 36 34 50 32 4 30 60 28 26 24 Condition FY2011 aver	est practice target vs  2 00 00 00 00 00 00 00 00 00 00 00 00 00
EU12*	Standards (GES) best practice target vs unit output     March   March	Standards (GES) be unit output  % 36 34 50 32 4 30 60 28 26 24 Condition FY2011 aver	est practice target vs  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Standards (GES) best practice target vs unit output   % 36 34 39 30 30 28 26 24 Unit output (MW)  Legend  — A Station FY2011 average efficiency — GES best practice target for plant age (30+ yrs)  Transmission and distribution losses as a percentage of total energy.  Management approach to ensure short and long-term	Standards (GES) be unit output  % 36 34 34 30 28 26 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Rest practice target vs  2
EU6*	Standards (GES) best practice target vs unit output  % 36 34 32 32 32 30 26 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Standards (GES) be unit output  % 36 34 50 32 28 26 24 Control of the process of	Rest practice target vs  2

			Core Additional * esaa Sustainable Practice Framework
Ref.	Description	Location of disclosure within report	Additional information
EN1	Materials used by weight and volume.	-	In FY2011, approximately 3,618 tonnes of concrete and 1,372 tonnes of steel were used by AGL's Upstream Gas and Merchant Energy businesses.
			Power Development projects are constructed via engineering, procurement and construction (EPC) contracts, therefore AGL does not directly purchase construction materials. However, approximately 52,315 tonnes of concrete and 6,924 tonnes of steel were purchased through EPC contracts and used in the construction of the Oaklands, Macarthur and Hallett 5 wind farms during FY2011.
			In addition to construction materials purchased during FY2011, 362 tonnes of paper was used for bill printing and in AGL offices. 82% of this paper was used for bill printing. AGL is encouraging customers to utilise AGL Online (a paperless billing system introduced in April 2011) to decrease paper used for billing customers.
EN2	Percentage of materials used that are recycled input materials.	_	During FY2011, 30% of the steel used by EPC contractors for AGL Power Development projects was recycled material.
			In FY2011, 93% of AGL's office paper contained recycled content (AGL typically purchases office paper with 100%, 80% or 10% recycled content). Currently recycled content paper is not used for customer billing, however, during FY2011 AGL launched AGL Online with a view to decreasing paper used for billing customers.
EN3*	Direct energy consumption by primary energy source.	Page 62	The greenhouse emissions from consumed energy are accounted for in AGL's Greenhouse Gas Footprint. Energy data is also available in AGL's response to the Carbon Disclosure Project, which is available at cdproject.net.
EN4	Indirect energy consumption by primary energy source.	Page 62	The greenhouse emissions from consumed energy are accounted for in AGL's Greenhouse Gas Footprint. Energy data is also available in AGL's response to the Carbon Disclosure Project, which is available at cdproject.net.
EN5	Energy saved due to conservation and efficiency improvements.	-	During FY2011, energy efficiency and conservation initiatives were undertaken at Suncoast Macadamias cogeneration plant, Hydrocarbon Extractions and Camden Gas Plant.
			At Suncoast Macadamias, the energy savings are estimated to be 4,800 GJ/annum, equivalent to a 15% saving on macadamia shell fuel.
			At Hydrocarbon Extractions, the energy savings achieved through the installation of a more efficient hot oil exchanger are estimated to be 2,100 GJ/annum.
			At Camden Gas Plant, modifications to lighting are estimated to save 70 GJ/annum.
EN6*	Initiatives to provide energy efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Page 29	-
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	_	Not disclosed.
EN8*	Total water withdrawal by source.	Page 81, 82, 83, 84	-
EN9	Water sources significantly affected by withdrawal of water.	Page 39, 80	Torrens Island Power Station cooling water and water passed through hydro power stations is returned to source effectively immediately thus there is negligible impact (other than temperature at Torrens Island Power Station which is regulated via an Environment Protection Authority licence).
			A groundwater and surface water investigation and monitoring program is conducted at AGL's Hunter, Gloucester, and Galilee gas exploration projects, and in the vicinity of the proposed natural gas storage facility at Tomago.
EN10	Percentage and total volume of water recycled and reused.	Page 81, 82, 83, 84	The majority of water withdrawn for use in operations is recycled/reused, as a large proportion of the water used comprises water withdrawn for cooling water at Torrens Island Power Station and water passed through AGL Hydro Power stations.
			Volumes of water produced at coal seam gas operations and recycled are disclosed in the report.

			Core
Ref.	Description	Location of disclosure within report	Additional information
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	-	AGL assets in or adjacent to protected areas include: Part of AGL's Kiewa Hydro Electric Scheme, in north-east Victoria, operates adjacent to and surrounded by the Victorian Alpine National Park.
			AGL's Hydrocarbon Extractions, located at Kurnell in Sydney, is adjacent to the Caltex oil refinery. Hydrocarbon Extractions encompasses a small plant area of approximately 6 hectares. Kurnell is primarily an industrial area, located near to both the Towra Point Nature Reserve and Botany Bay National Park.
			The Torrens Island Power Station is surrounded by water bodies comprising the Port Adelaide River and the Barker Inlet, which are part of a sanctuary of 118 km² created under the <i>Adelaide Dolphin Sanctuary Act 2005</i> (SA) to protect a resident bottlenose dolphin population (See EN25 for further information).
			For AGL's development projects, relevant information regarding sensitive environments is included within environmental impact assessments. Environmental assessments for a number of projects are disclosed on project websites (see: agl.com.au/about/EnergySources/indevelopment/Pages/default.aspx).
EN12*	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Page 78	AGL's activities during FY2011 have not had a significant impact on biodiversity in protected areas and areas of high biodiversity value outside protected areas.
			Although native flora and fauna is present at a number of AGL development and exploration projects, AGL actively seeks to constrain activities to areas of low environmental significance where ever possible.
			For example, during the design and construction of the AGL Hallett 4 Wind Farm in South Australia (completed in May 2011) AGL and the engineering, procurement and construction contractor worked with expert ecologists to avoid impacting the Pygmy Blue-tongue Lizard and iron-grass Natural Temperate Grassland, both of which are listed as critically endangered under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). Further, during construction, an exclusion zone was set up to protect two Silver Daisy bush within the project area. The Silver Daisy is listed as a threatened species under the EPBC Act.
			At coal seam gas exploration projects, there is typically minimal disturbance to flora when undertaking seismic activity or drilling, and where possible AGL locates its drill sites and campsites on already disturbed ground.
EN13	Habitats protected or restored.	Page 78	As outlined above, AGL seeks to protect habitats by limiting the construction/exploration footprint of its development projects to already disturbed areas where possible. Where habitats are affected, AGL takes steps to restore and protect them.
			For example, during the development of the Hallett 2 Wind Farm, nearly 7.5 hectares of native vegetation was cleared. To offset this habitat loss, over 15 hectares of land has been set aside for conservation purposes. This land will be managed and monitored in accordance with the requirements of the South Australian Native Vegetation Council.
EN14*	Strategies, current actions and future plans for managing impacts on biodiversity.	Page 78	AGL's health, safety and environmental management system, Life Guard, contains standards relating to Environmental Aspects and Impacts and Risk Management, which provide high level guidance on the process for identification of environmental risks. Life Guard contains an Ecosystem Protection Compliance Guide which covers the protection of ecosystems within and adjacent to AGL sites.
			Individual sites have their own environmental management plans, which reflect both the requirements of the Life Guard management system, and the local aspects of operations. As an example, section 8 of the management plan for the AGL Silver Springs Gas Storage Facility outlines actions and strategies for managing impacts on local flora and fauna (see agl.com.au/Downloads/Silver%20Springs%20-%20 Environmental%20Management%20Plan.pdf).
			Further, as detailed in the Environment chapter, all large AGL sites/projects maintain environmental risk registers which, where relevant, detail site-specific environmental risks and risk management measures. In FY2012, AGL will develop a corporate biodiversity register to provide a company-wide view of AGL's biodiversity risks and enable a strategic approach to biodiversity risk management.
EN15	Number of IUCN Red List and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	-	Not disclosed.
EN16*	Total direct and indirect greenhouse gas emissions by weight.	Page 62	-
EN17	Other relevant indirect greenhouse gas emissions by weight.	-	Please refer to AGL's CDP submission available at: cdproject.net.

Ref. EN18*	<b>Description</b> Initiatives to reduce greenhouse gas emissions and reductions achieved.	Location of disclosure within report Page 3, 62, 68	Additional information
EN18*	Initiatives to reduce greenhouse gas emissions and reductions		
EN19			AGL's integrated business strategy, including investments in zero and low emission generation ensures that AGL can supply electricity with a lower greenhouse gas intensity than the Australian average.
	Emissions of ozone depleting substances by weight.	-	In FY2011, AGL purchased 69kg of ozone depleting substances (R22 and 134A) for Torrens Island Power Station; and 2,760kg for Hydrocarbon Extractions (R22). The amounts purchased are to offset losses from air conditioning systems, and therefore it is assumed that approximately the same weight of ozone depleting substances were emitted during FY2011 from these sites.
EN20*	NOx, SOx, and other significant air emissions by type and weight.	Page 75, 76	-
EN21*	Total water discharge by quality and destination.	Page 84	-
EN22*	Total weight of waste by type and disposal method.	Page 79	-
EN23	Total number and volume of significant spills.	Page 74	In FY2011, there was one significant spill (as assessed using AGL's Fully Integrated Risk Management methodology). See table on page 74 for details.
EN24	Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally.	_	Not a material issue for AGL.
EN25	Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the	_	A number of AGL sites are located within proximity to water bodies and related habitats. The most significant of these are:
	reporting organisation's discharges of water and runoff.		<b>Kiewa Hydroelectric Scheme:</b> The Kiewa Scheme has power stations, dams and pondage located on the East Kiewa, West Kiewa and Kiewa Rivers. Some sites are located within the Alpine National Park which has protected status.
			The harvesting and utilisation of the water from the catchments for a variety of purposes, including the generation of electricity over the past 40 years, has altered the ecological systems of the waterways, not only within the catchment, but also those below the catchment. The ecological systems have largely adapted to these changes, however there are ongoing impacts on the environment from the operation of the schemes as a result of changes to natural flows. See page 84 for details on desilting of the hydro scheme water storages.
			Torrens Island Power Station: The Torrens Island Power Station is surrounded by water bodies comprising the Port Adelaide River and the Barker Inlet, which are part of a sanctuary of 118 km² created under the Adelaide Dolphin Sanctuary Act 2005 (SA) to protect a resident bottlenose dolphin population. The Act imposes a general duty of care to take all reasonable measures to prevent or minimise any harm to the Sanctuary. The Act does not limit or impair the operation of the Environment Protection Act under which the Torrens Island Power Station is licensed to discharge warm condenser cooling water to the marine environment. As outlined on page 84, AGL undertakes thorough monitoring of this discharge to ensure compliance with Environment Protection Authority licence conditions.
			Within the waters of the Dolphin Sanctuary is the Barker Inlet – St Kilda Aquatic Reserve, the purpose of which is to protect samphire, mangrove and seagrass communities and their role as a fish and crustacean nursery and breeding areas. The Barker Inlet is listed in the Directory of Important Wetlands of Australia (Environment Australia, 2001) as a nationally important marine and coastal zone wetland.
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Page 29, 62, 68	-
EN27	Percentage of products sold, and their packaging materials that are reclaimed by category.	_	This indicator is not relevant to AGL's core products (gas and electricity).
EN28	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with environmental laws and regulations.	Page 74	As outlined on page 74 there were no fines applied to AGL's operations during the reporting period for non-compliance with environmental laws and regulations.
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations and transporting members of the workforce.	Page 66	-
EN30	Total environmental protection expenditures and investments by type.	_	Environmental protection expenditure is not reported. AGL's investments in renewable energy generation are detailed on page 69. AGL's planned construction of renewable energy generation is listed on page 3.

Biodiversity of offset habitats compared to the biodiversity of affected areas.  Biodiversity of offset habitats compared to the biodiversity of affected areas.  Biodiversity of offset habitats are sometimes required to be established where habitat areas are affected during the construction of AGL projects. When determining offset sites, various factors are taken into consideration including quality versus quantity invariably applies. Appropriate sites are selected with input from specialist ecologists and in constitution with statutory agencies as required).  Where relevant, information regarding offsets habitats related to AGL development projects is disclosed on project websites of AGL development projects and in constitution with statutory agencies (as required).  But of the programs and processes to ensure the availability of a skilled workforce.  But of the programs and processes to ensure the availability of a skilled workforce.  Page 51  But of the programs and processes to ensure the availability of a skilled workforce.  Page 51  But of the programs and processes to ensure the availability of a skilled workforce.  Policies and requirements regarding health and safety of expensive and employees will be eligible to retire in 10 years time, and 8.7% of employees will be eligible to retire in 10 years time (based upon a retirement age of 65 years).  But of the programs and processes to ensure the availability of a skilled workforce and equirements regarding health and safety of employees and employees and employees and employees and employees and employees of contractors and subcontractors.  But of the program and approach approach and approach approach and approach approach approach approach and approach approach approach approach and approach			Location of disclosure	
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Fig. 51  Fig. 17  Fig. 18  Fig	EU13		Page 78	to be established where habitat areas are affected during the construction of AGL projects. When determining offset sites, various factors are taken into consideration including site condition and landscape context. The principle of quality versus quantity invariably applies. Appropriate sites are selected with input from specialist ecologists and in consultation with statutory agencies (as required).  Where relevant, information regarding offsets habitats related to AGL development projects is disclosed on project websites (see: agl.com.au/about/EnergySources/indevelopment/Pages/
Percentage of employees eligible to retire in the next 5 and 10 — Ask 80 km 2011 34 KG (amployees will religible to retire by when't bridere down't by this calledge and by region.  EU16 employees and employees of contributors and subcontractors.  EU17 Days worked by contractor and subcontractors and subcontractors.  EU17 Days worked by contractor and subcontractors employees in which is the substitution of the substitution	EU14*		Page 51	default.aspx).
Policies and requirements repaired in activities.  Dept worksold by contractor and subcontractors.  Dept my receive in contractor (and present in the p	EU15	Percentage of employees eligible to retire in the next 5 and 10	-	in 5 years time, and 8.7% of employees will be eligible to retire in
windowed in construction, operation and maintenance activities.  while this business unit is regionable for the operation and maintenance activities.  While this business unit is regionable for the operation and maintenance activities.  Contractor TIRR disclosed on page 57.  Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.  1A1 Total workforce by employment type, employment contract and by region.  1A2 Total workforce by employment type, employment contract and by region.  1A3 Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.  1A4 Percentage of employees covered by collective bargaining agreements.  1A5 Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.  1A6 Percentage of footal workforce represented in formal joint management-worker health and safety committees that help involved not reported in sold services and safety programs.  1A6 Percentage of total workforce represented in formal joint management-worker health and safety committees that help involved not committee the for Work Act 2009 (Chb, requiring approximately 50% of our workforce.  1A7 Percentage of total workforce represented in formal joint management-worker health and safety committees that help involved not programs in place to assist workforce members, their families, or community members regional generation and risk-corridary programs.  1A8 Education, training per year per employee by employee and selective agreements work to decide the region of the involved programs in place to assist workforce members, their families, or community members regional generation and risk-corridary programs.  1A9 Health and safety topics covered in formal agreements with to decide the programs in place to assist workforce members, their families, or community members regional generation and risk-corridary programs.  1A10 Programs for skills management and lifetion gle	EU16		Page 56	AGLs health, safety and environment policy (see: agl.com.au/
have undergone relevant health and safety training, who have completed the ofiline health, safety and environment induction is reported.  Total workforce by employment type, employment contract and by region.  Total number and rate of employee turnover by age, group, gender and region.  Benefits provided to full-time employees that are not provided to be temporary or part-time employees, by major operations.  Benefits provided to full-time employees, by major operations.  LA3  Benefits provided to full-time employees that are not provided to be temporary or part-time employees, by major operations.  LA4  Percentage of employees covered by collective bargaining agreements.  LA5  Minimum notice period(s) reparding operational changes, including whether it is specified in collective agreements.	EU17		_	days were worked in AGL's Merchant Energy business unit. While this business unit is responsible for the operation and maintenance, and construction of electric generation assets - the contractor days worked are not necessarily limited to construction, operation and maintenance activities.
LA2* Total number and rate of employee turnover by age, group, gender and region.  LA3 Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations. In the temporary or part-time employees, by major operations.  LA4 Percentage of employees covered by collective bargaining agreements.  LA5 Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.  AGL is party to six major Enterprise Bargaining Agreements covering approximately 50% of our workforce. While no minimum cities period(s) regarding operational changes, including whether it is specified in collective agreements.  AGL is party to six major Enterprise Bargaining Agreements (EBAs) covering approximately 50% of our workforce. While no minimum cities period is specified, these agreements document AGLs obligation to consoit with our employees status of future employment with AGL. The remaining from EBA) workforce have similar rights under the For Work Act 2009 (Cth), requiring all employers to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employers to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employers to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employers to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employees to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employees to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employees to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employees to consult on major workforce have similar rights under the For Work Act 2009 (Cth), requiring all employees are major and solve to major workforce have similar rights under the Fore More Act 2009 (Cth), requ	EU18*		Page 58	who have completed the online health, safety and environment
Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.  AGL's employee benefits are accessible to all AGL employees, regardless of their part-time of full-time employees, so the part-time of full-time employees of the part-time of full-time employees, so the part-time of full-time employees of the part-time of full-time employees of the part-time of full-time employees of the part-time employees of the part-t	LA1		Page 55	-
to temporary or part-time employees, by major operations.    Calculation of the part-time or full-time employments status (although some have eligibility criteria, such as minimum service terms).    LA4	LA2*		Page 52	-
LA5 Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.  - AGL is party to six major Enterprise Bargaining Agreements with including whether it is specified in collective agreements.  - AGL is party to six major Enterprise Bargaining Agreements document AGL 50% of our workforce. While no minimum notice period is specified, these agreements document AGL 50% obligation to consolt with our employees and their union representatives prior to the implementation of major organisational change that impacts our employees' status or future employment with AGL. The remaining (non EBA) workforce have similar rights under the Fall Work Act. 2009 (Cth), requiring all employers to consult on major workplace changes prior to implementation.  LA6* Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.  LA7* Rates of injury, occupational diseases, lost days and absenteeism, and number of work related fatalities by region.  LA8 Education, training, counselling, prevention and risk-control programs in place to assist tworkforce members, their families, or community members regarding serious diseases.  LA9 Health and safety topics covered in formal agreements with trade unions.  - AGL's health, safety, and environment system, Life Guard, is relevant to all employees, regardless of whether they are covered by specific union agreements.  LA10* Average hours of training per year per employee by employee  actegory.  Average hours of training per year per employee by employee and assist them in managing career endings.  Page 51, 52, 53  - In Fy2011, over 8, 400 hours of leadership and development training was delivered for AGL's Retail Energy group during Fy2011.  These figures include customised training programs, seminars, and conferences attended by AGL employees. In addition, over 9, 800 hours of training was delivered for AGL's Retail Energy group	LA3		Page 53, 54	regardless of their part-time or full-time employment status (although some have eligibility criteria, such as minimum
including whether it is specified in collective agreements:  (EBAs) covering approximately 50% of our wörkforce. While on himimum notice period is specified, these agreements document AGL's obligation to consult with our employees and their union representatives prior to the implementation of major organisatives prior to implementation.  LA6*  Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.  LA7*  Rates of injury, occupational diseases, lost days and absenteeism, and number of work related fatalities by region.  Education, training, counselling, prevention and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.  LA9  Health and safety topics covered in formal agreements with trade unions.  LA10*  Average hours of training per year per employee by employee category.  Page 52  In FY2011, over 8,400 hours of leadership and development training was undertaken by AGL employees. In addition, over 97,800 hours of training and development function. Figures do not include public training programs, seminars, and conferences attended by AGL employees.  LA11  Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  LA12  Percentage of employees receiving regular performance and Page 53	LA4		_	
management-worker health and safety committees that help monitor and advise on occupational health and safety programs.  Rates of injury, occupational diseases, lost days and absenteeism, and number of work related fatalities by region.  LA8  Education, training, counselling, prevention and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.  LA9  Health and safety topics covered in formal agreements with trade unions.  AGL's health, safety and environment system, Life Guard, is relevant to all employees, regardless of whether they are covered by specific union agreements.  LA10*  Average hours of training per year per employee by employee category.  Page 52  In FY2011, over 8,400 hours of leadership and development training was undertaken by AGL employees. In addition, over 97, 800 hours of training was delivered for AGL's Retail Energy group during FY2011.  These figures include customised training programs, managed by AGL's in-house learning and development function. Figures do not include public training programs, seminars, and conferences attended by AGL employees.  LA11  Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  Page 51, 52, 53  -  Page 53	LA5		`-	(EBAs) covering approximately 50% of our workforce. While no minimum notice period is specified, these agreements document AGL's obligation to consult with our employees and their union representatives prior to the implementation of major organisational change that impacts our employees' status or future employment with AGL. The remaining (non EBA) workforce have similar rights under the Fair Work Act 2009 (Cth), requiring all employers to consult on major
absenteeism, and number of work related fatalities by region.  Education, training, counselling, prevention and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.  LA9 Health and safety topics covered in formal agreements with trade unions.  AGL's health, safety and environment system, Life Guard, is relevant to all employees, regardless of whether they are covered by specific union agreements.  LA10* Average hours of training per year per employee by employee category.  Page 52 In FY2011, over 8,400 hours of leadership and development training was undertaken by AGL employees. In addition, over 97, 800 hours of training was delivered for AGL's Retail Energy group during FY2011.  These figures include customised training programs, managed by AGL's in-house learning and development function. Figures do not include public training programs, seminars, and conferences attended by AGL employees.  LA11 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  Page 53	LA6*	management-worker health and safety committees that help monitor and advise on occupational health and safety	Page 58	-
programs in place to assist workforce members, their families, or community members regarding serious diseases.  LA9 Health and safety topics covered in formal agreements with trade unions.  AGL's health, safety and environment system, Life Guard, is relevant to all employees, regardless of whether they are covered by specific union agreements.  LA10* Average hours of training per year per employee by employee category.  Page 52 In FY2011, over 8,400 hours of leadership and development training was undertaken by AGL employees. In addition, over 97, 800 hours of training was delivered for AGL's Retail Energy group during FY2011.  These figures include customised training programs, managed by AGL's in-house learning and development function. Figures do not include public training programs, seminars, and conferences attended by AGL employees.  LA11 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  LA12 Percentage of employees receiving regular performance and Page 53	LA7*		Page 56, 57	-
trade unions.  LA10*  Average hours of training per year per employee by employee category.  Page 52  In FY2011, over 8,400 hours of leadership and development training was undertaken by AGL employees. In addition, over 97, 800 hours of training was delivered for AGL's Retail Energy group during FY2011.  These figures include customised training programs, managed by AGL's in-house learning and development function. Figures do not include public training programs, seminars, and conferences attended by AGL employees.  LA11  Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  Page 51, 52, 53	LA8	programs in place to assist workforce members, their families,	Page 58	-
training was undertaken by AGL employees. In addition, over 97, 800 hours of training was delivered for AGL's Retail Energy group during FY2011.  These figures include customised training programs, managed by AGL's in-house learning and development function. Figures do not include public training programs, seminars, and conferences attended by AGL employees.  LA11  Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  Page 51, 52, 53	LA9		_	is relevant to all employees, regardless of whether they are
Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.  Page 51, 52, 53  - LA12  Percentage of employees receiving regular performance and Page 53	LA10*		Page 52	training was undertaken by AGL employees. In addition, over 97, 800 hours of training was delivered for AGL's Retail Energy group during FY2011.  These figures include customised training programs, managed by AGL's in-house learning and development function. Figures do not include public training programs, seminars, and
LA12 Percentage of employees receiving regular performance and Page 53	LA11	support the continued employability of employees and assist	Page 51, 52, 53	-
	LA12	Percentage of employees receiving regular performance and	Page 53	

			Core
Ref.	Description	Location of disclosure within report	Additional information
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	Page 55	Refer to AGL Annual Report (Directors' Report)
LA14*	Ratio of basic salary of men to women by employee category.	Page 49	-
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	_	Not applicable. For Australian investments, human rights are protected by law.
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	-	Within AGL's commercial agreements with suppliers (including agreements with overseas suppliers), there are unconditional obligations that require the supplier to comply with internal AGL standards and policies. For example, compliance with AGL's Code of Conduct is a specific obligation in contracts. Overseas suppliers are also bound to comply with external policies and standards that AGL operates to in Australia, including Australian laws, regulations and standards.
			AGL monitors these obligations throughout the term of the agreement and should there be a breach, AGL would exercise its right of termination associated with these obligations.
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Page 52	The percentage completion rate of employees completing online induction and refresher training for Diversity and Inclusion is disclosed. The compulsory induction training provides education about discrimination, harassment and other unlawful behaviour.
HR4*	Total number of incidents of discrimination and actions taken.	Page 50	-
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	_	AGL complies with Australian legislation regarding human rights in areas including diversity, discrimination, freedom of association, child labour, layoffs and health, safety and environment. We support, in principle, the United Nations Global Compact on human rights for businesses.
HR6	Operations identified as having a significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.	_	AGL complies with Australian legislation regarding human rights in areas including diversity, discrimination, freedom of association, child labour, layoffs and health, safety and environment. We support, in principle, the United Nations Global Compact on human rights for businesses.
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour.	_	AGL complies with Australian legislation regarding human rights in areas including diversity, discrimination, freedom of association, child labour, layoffs and health, safety and environment. We support, in principle, the United Nations Global Compact on human rights for businesses.
HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations.	-	AGL complies with Australian legislation regarding human rights in areas including diversity, discrimination, freedom of association, child labour, layoffs and health, safety and environment. We support, in principle, the United Nations Global Compact on human rights for businesses.
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	-	Not disclosed.
EU19	Stakeholder participation in the decision making process related to energy planning and infrastructure development.	Page 12, 35, 36, 39	-
EU20	Approach to managing the impacts of displacement.	-	AGL sites its development projects to avoid the need to physically displace individuals or communities. See also EU22.
EU21	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/ restoration plans.	_	AGL employs a holistic, integrated and consistent approach to risk management. AGL also maintains a Business Continuity Management Policy and Framework and multiple levels of response plans. AGL has a number of emergency response plans that address key risks. Any scenario that could materially impact AGL operations or reputation would be considered a continuity event and the AGL Code Red response plan would be activated.
EU22	Number of people physically or economically displaced and compensation, broken down by type of project.	-	AGL sites its development projects to avoid the need to physically displace individuals or communities. For wind farms and upstream gas projects, AGL makes direct payments to landowners whose land is included in the development site. This provides landowners with additional revenue, with minimal disruption to the use of their land.  The economic impact of AGL's wind farm developments in
			the Hallett region of South Australia has been assessed and found to have had a positive economic impact on the region (page 23).
SO1*	Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting.	Page 12, 23, 35, 36, 39	-

			Core Additional * esaa Sustainable Practice Framework
Ref.	Description	Location of disclosure within report	Additional information
SO2	Percentage and total number of business units analysed for risks related to corruption.	Page 10, 11	AGL recognises that risk is dynamic and is inherent in all external and internal operating environments and is committed to managing all risks effectively. AGL employs a holistic, integrated and consistent approach to risk management, whereby all risks identified are measured in accordance with the following consequence categories – financial; business interruption; customer impact; reputation; regulatory/ legal; environment and community; and health and safety. An escalation process is in place which will determine the level and urgency of management and/or Board attention in accordance with the assessed materiality level. A full review and assessment of material strategic (i.e. Tier 1) risks occurs annually, however a proactive continual review process is also in place with quarterly reporting to the Audit and Risk Management Committee. As part of the review process, all business units across the enterprise are assessed on an ongoing basis for material operational risks and issues. AGL's Internal Audit program includes provision for auditing for fraudulent activity."
			Downloads/AGL%20Energy%20Risk%20Policy%20Final%20 210809.pdf.
SO3	Percentage of employees trained in the organisation's anti- corruption policies and procedures.	Page 51, 52	The AGL Code of Conduct explains: what obligations AGL has to put in place mechanisms to assist employees and contractors to act in accordance with the overarching principles of ethical behaviour; and how AGL's employees and contractors should act consistently with the principles.  AGL provides education about discrimination, harassment and other unlawful behaviour through compulsory induction training. Completion rates for Code of Conduct induction and refresher training is disclosed.
SO4	Actions taken in response to incidents of corruption.	Page 50	
SO5	Public policy positions and participation in public policy development and lobbying.	Page 10, 11	-
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Page 10	AGL does not make ex gratia donations to any political party or to any individual in, or seeking to obtain, political office. During FY2011, AGL paid a total of \$64,100 in reportable subscription fees for membership of both the Labor Party and the Liberal Party business networking forums. The AGL Code of Conduct requires AGL to adopt an even-handed approach to all mainstream political parties when paying to attend political functions, and from time to time AGL does pay to attend such functions. How AGL manages this activity is contained under the "Managing conflicts of interest" section of the Code.
			AGL meets its obligations to disclose any reportable political donations as required by Commonwealth and State (NSW) legislation, and these disclosures are made publicly available on both the Australian Electoral Commission and its New South Wales equivalent, the Election Funding Authority websites.
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcome.	_	During FY2011, there have been no formal legal proceedings (i.e. commenced in court) by regulators (ACCC, AER and State fair trading bodies) against AGL for anti-competitive behaviour, anti-trust, and monopoly practices. AGL has received a notice to produce information and documents to the ACCC under section 155 of the TPA. This notice is currently being contested in the Federal Court, and the hearing is set down for 9 and 10 February 2012.
SO8*	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Refer to AGL Annual Report.	During FY2011, AGL did not have any significant fines or non-monetary sanctions for non-compliance with laws and regulations. For non-compliance with environmental laws and regulations see page 74. For legal actions for anti-competitive behaviour, anti-trust, and monopoly practices see SO7. For non-compliance with laws and regulations concerning the provision and use of products and services see PR9.
EU23	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services.	Page 32, 33	-
EU24	Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services.	Page 30, 31	-
EU25*	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.	Page 56, 57	-
EU26	Percentage of population unserved in licensed distribution or service areas.	-	Not applicable. AGL does not control, own or operate any electrical transmission or distribution businesses.
EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.	Page 30	-
EU28	Power outage frequency.	-	Not applicable. AGL does not control, own or operate any electrical transmission or distribution businesses.

Core
 Additional
 \* esaa Sustainable Practice Framework

AGL has not had any fines levied by any regulatory body in the last financial year. In circumstances where an overcharge to customers occurs, AGL ensures that any overcharge is rectified and applied as per regulatory requirements, including any interest or applicable credit.

PR6

PR9

Ref.	Description	within report	Additional information
EU29	Average power outage duration.	-	Not applicable. AGL does not control, own or operate any electrical transmission or distribution businesses.
EU30	Average plant availability factor by energy source and by regulatory regime.	Page 17	_
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories	Page 56	The health and safety impacts of the generation of electricity and gas production, in AGL's assets, and the retailing of energy by AGL, are addressed.
	subject to such procedures.		Advice on using energy safely is provided on the AGL website at agl.com.au/Downloads/Safety%20Advice.pdf.
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by types of outcome.	Page 56, 57	Health and safety performance of AGL's assets and operations is reported. These incidents relate to the life cycle stages of energy production and retailing. AGL is not responsible for energy transmission and distribution to end users.
PR3	Type of product and service information required by procedures, and percentage of significant products and	_	As a generator and retailer of energy, AGL's core products are gas and electricity.
	services subject to such information requirements.		To assist customers, indicative greenhouse gas emissions associated with their consumption of energy are provided on gas and electricity bills, and energy saving tips can be found on AGL's website.
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by types of outcome.	Page 30	Data on complaints received in relation to sales and marketing activity is provided.
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Page 26, 27, 28	Customer complaints to Ombudsmen are reported.

Page 30, 31

Page 30, 31

Not disclosed.

Location of disclosure

### esaa Sustainable Practice Framework

Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion and sponsorship.

Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by types of outcome.

Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.

Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.

	esaa Principle	Location of disclosure	GRI Profile Disclosure/Indicator
1	Maintain good corporate governance practices.	Governance and management	4.1-1.12, EC2, SO8
2	Deliver value to shareholders, customers and the community.	Economic, Customer and Community chapters	EC1, EC8
3	Provide a safe, secure and reliable energy supply.	Economic chapter	EU6, EU25
4	Engage key internal and external stakeholders on significant sustainability matters.	Stakeholder engagement	4.14-4.17
5	Maintain and enhance workforce health, safety, wellbeing and development.	People chapter	LA2, LA6, LA7, LA10, LA14, HR4, EU14, EU18
6	Develop and implement climate change responses.	Climate change chapter	EN3, EN6, EN16, EN18
7	Improve environmental performance and resource efficiency.	Environment chapter	EU11, EU12, EN8, EN12, EN14, EN20, EN21, EN22
8	Foster and support community programs.	Community chapter	SO1
9	Promote measurement and reporting of sustainability performance.	About this report	-

