T: +61 2 9921 2999 F: +61 2 9921 2552 www.agl.com.au



**MAGL** 

## **ASX** statement

21 May 2009

Attached is a presentation to be made today by Managing Director Michael Fraser at the UK Investor roadshow.

Paul McWilliams Company Secretary

# **AGL Energy Limited**

# Australia's Largest Integrated Renewable Energy Company

Michael Fraser Managing Director & CEO

Jeff Dimery Group General Manager, Merchant Energy



UK Investor Roadshow May 2009

## Disclaimer

## The information in this presentation:

- Is not an offer or recommendation to purchase or subscribe for securities in AGL Energy Limited or to retain any securities currently held.
- Does not take into account the potential and current individual investment objectives or the financial situation of investors.
- Was prepared with due care and attention and is current at the date of the presentation.
- Actual results may materially vary from any forecasts (where applicable) in this presentation.
- Before making or varying any investment in securities in AGL Energy Limited, all investors should consider the appropriateness of that investment in light of their individual investment objectives and financial situation and should seek their own independent professional advice.

» UK Investor Roadshow

» May 2009

» AGL External



# Agenda

- > About AGL Energy Background & Strategy
- > Renewables & Carbon: Policies & Industry Impacts An Update
- > AGL Renewables & Carbon: Positioning & Opportunities
- > AGL Upstream Gas Portfolio
- > Way Forward
- > Supplementary Information



<sup>»</sup> UK Investor Roadshow

<sup>»</sup> May 2009

<sup>»</sup> AGL External

# **SAGL** About AGL Energy

# About AGL Energy

## Australia's largest integrated renewable energy company.

- > Australia's largest private owner, operator & developer of renewable generation
- > Australia's largest, diversified (geography, fuel & mix) generation portfolio
- > Australia's largest natural gas & electricity customer base
- A world class, scaleable customer management & billing system (Phoenix SAP solution)
- > Australia's largest contracted gas portfolio & emerging positions in new Coal Seam Gas (CSG) developments
- > Industry leading portfolio of renewable & thermal development projects
- > S&P/ASX50 stock with market capitalisation of ~A\$6.5 billion
- > BBB investment grade credit rating (Standard & Poor's)









<sup>»</sup> May 2009



<sup>»</sup> AGL External

# AGL Energy Today – Asset Profile

## OPERATIONAL SNAPSHOT

## Retail Customer Accounts

- 3.22 million accounts
- 1.42 million gas
- 1.8 million electricity
- 1.19 million dual-fuel

#### Current Generation

- ~3,510 MW owned and / or operated
- ~350 MW renewable under construction

#### New Generation Developments

- ~2,000 MW identified renewables
- ~5,200 MW identified gas

#### Current Gas Reserves<sup>1</sup>

- ~3,100 PJ contracted gas
- ~680 PJ equity gas

## Energy Sales

- Electricity ~37 TWh p.a.
- Gas ~230 PJ p.a.

Generation – Renewables ~100MW (Australia-various)

Cogen, landfill gas, photovoltaic and bagasse

## Gas - Galilee Basin (Australia - OLD)

- Investment in CSG production pilot and exploration appraisal program in Galilee Basin
- 50% interest in exploration tenement ATP529P

## Gas - Innamincka (Australia - SA)

 Farm-In to permits PEL101 & PEL103 and 10 year gas marketing agreement

## Geothermal - Torrens Energy (Australia - SA)

 9.9% investment in Geothermal developer with associated Geothermal development agreement

## Retail - ActewAGL (Australia - ACT)

- 50/50 Joint Venture with Actew Corporation
- Australian Capital Territory's (ACT) leading multi utility offering electricity, natural gas, water, wastewater and telecommunication services

## Gas - CSM Energy (Australia):

• 35% investment in coal mine methane extraction

1. 1 PJ (Petajoule) = ~0.95 BCF (billion cubic feet)

## **OUEENSLAND**

### **Customer Accounts**

- 83,600 gas
- 363,100 electricity

#### Generation

- Yabulu Gas 121 MW (50% dispatch rights) • Oakey - Gas - 282 MW (100% dispatch rights)
- Moranbah Gas 12 MW

#### Unstream Gas

- Moranbah Project 416 PJ (50% equity)
- Spring Gully 6 PJ (various % equity)
- Bowen / Surat Basin 1,164 PJ (contract)
- North QLD 240 PJ (contract)



## **NEW SOUTH WALES**

#### **Customer Accounts**

- 764,300 gas
- 318,100 electricity

#### Generation

Hydro - 62.2 MW

#### Unstream Gas

- Gloucester Basin (100% equity) 175 PJ
- Sydney Basin (100% equity) 82 PJ

## ACT (ActewAGL) 50/50 JV

#### **Customer Accounts**

- 112,200 gas
- 155,700 electricity

## **VICTORIA**

#### **Customer Accounts**

- 492,100 gas
- 659,900 electricity

## Generation

- Hydro 583.3 MW
- Bogong / McKay Expansion 150 MW (construction)
- · Somerton Gas 150 MW
- Loy Yang A Coal 689 MW (32.5% equity)

### **Upstream Gas**

- Gippsland Basin 931 PJ (contract)
- Otway Basin 270 PJ (contract)

### **SOUTH AUSTRALIA**

#### **Customer Accounts**

- 78,500 gas
- 463,700 electricity

- Torrens Island Gas 1,280 MW
- Hallett 1 wind farm 94.5 MW (off take)
- Hallett 2 wind farm 71.4 MW (construction)
- Hallett 4 wind farm 132 MW (construction)
- Wattle Point wind Farm 90.8 MW (off-take)
- Angaston Diesel 49 MW (off take)

### Upstream Gas

Cooper Basin – 414 PJ (contract)

» UK Investor Roadshow

- » May 2009
- » AGL External

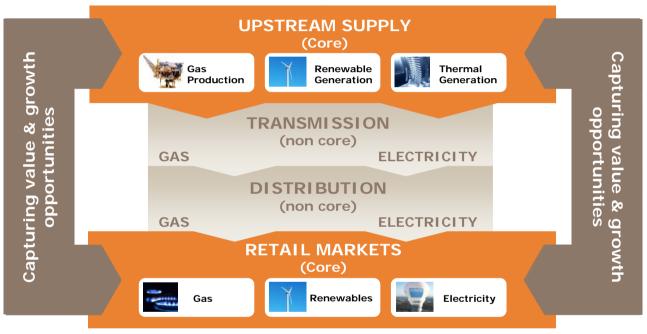


# The Integrated Strategy

Balancing risk between upstream supply, retail markets & providing access to multiple profit pools.

## **Upstream Gas:**

- Direct ownership of ~2,000 PJ (2P) over the medium term
- Essentially CSG strategy
- Disciplined decision around trade-off between acquiring gas and EPS impacts
- Will continue to contract if achieves superior outcome



## **Generation:**

- Currently ~3,510 MW of capacity owned and/or operated (plus ~350MW under construction)
- Medium term target of ~6.000 MW
- Achieve 60-70% of load (capacity) internally covered to deliver desired portfolio outcomes

## Market Leadership:

- > Ultimate focus on managing and growing margin, not specific customer number targets
- > Customer base / channel to market important in leveraging upstream strategy & achieving retail economies of scale
- > Potential base of 4 to 5 million customers given any participation in NSW privatisation
- » UK Investor Roadshow
- » May 2009
- » AGL External



Renewables & Carbon:

Policies & Industry Impacts – An Update



# Proposed Legislative Changes

Federal Government proposing two schemes – Expanded Renewable Energy Target (RET) & Carbon Pollution Reduction Scheme (CPRS).

## **Expanded RET**

- Draft legislation released to be introduced mid 2009
- Commences 1 January 2010 Council Of Australian Governments (COAG) agreement 30 April 2009
- > Key value driver of renewable industry remains on track

## **CPRS**

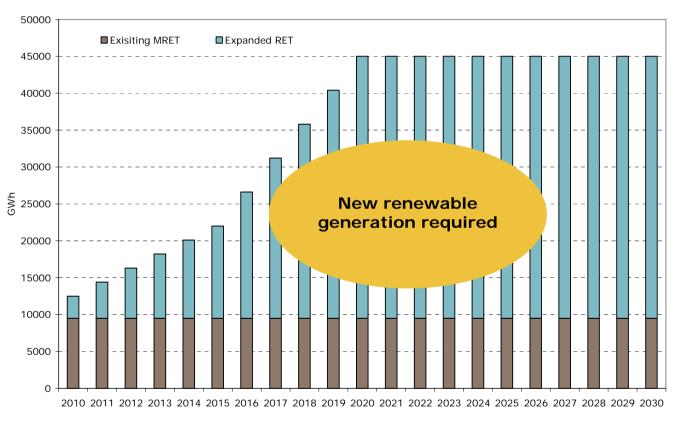
- > Government proposing delayed start to 1 July 2011
- > Additional assistance for Emissions Intensive Trade Exposed Industries
- > Fixed price of \$10 per tonne CO<sub>2</sub> in first year
- > Details of CPRS must be resolved to provide investment and market certainty

- » UK Investor Roadshow
- » May 2009
- » AGL External



# **Expanded RET drives Growth**

AGL renewable portfolio to deliver material upside.



- Additional 35,500 GWh pa of renewable energy required to meet expanded target of 45,000GWh pa
- > COAG Agreement last week to:
  - » Extend full target of 45,000 GWh pa out to 2030
  - » Increase RET penalty to \$65 (\$93 pre-tax)
  - » Increase assistance to large energy intensive trade exposed industries
- AGL renewable portfolio to benefit from rising REC & electricity prices

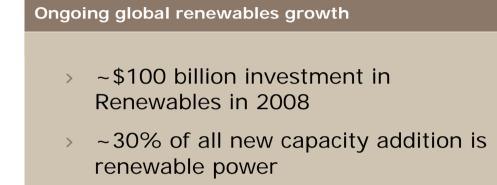
Source: AGL Greenhouse modelling

- » UK Investor Roadshow
- » May 2009
- » AGL External



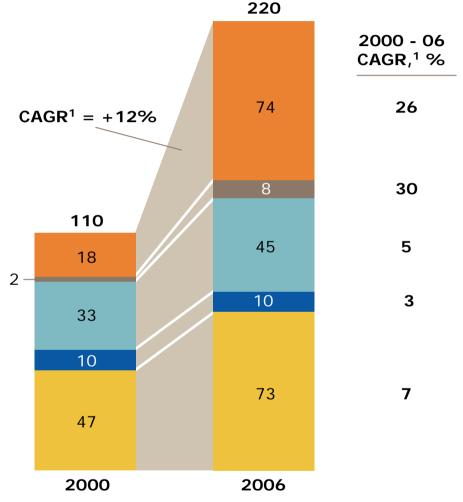
# Growth - Wind Compared To Other Renewables

Global installed base, gigawatts (GW)





<sup>&</sup>lt;sup>1</sup> Compound Annual Growth Rate



**Source:** McKinsey on Electric Power & Natural Gas: Number 1, Winter 2008



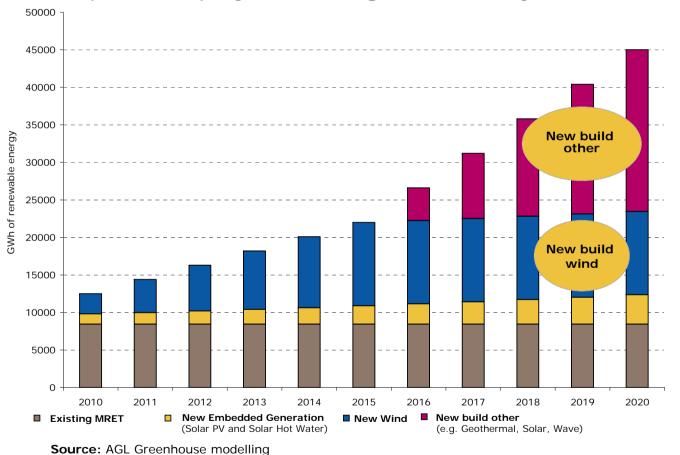
<sup>»</sup> UK Investor Roadshow

<sup>»</sup> May 2009

<sup>»</sup> AGL External

# Required Renewables Growth

Wind will dominate early build - geothermal & other technologies anticipated to play increasing role in out years.



- AGL has a leading portfolio of development options across all major renewable technology groups
- Largest privately owned hydro portfolio in Australia
- Significant portfolio of wind development opportunities provides immediate access to lowest cost commercial deployable technology today
- Longer term, technologies such as geothermal are likely to play a key role in renewable base load generation
- Economics of a number of geothermal prospects impacted significantly by transmission costs

» UK Investor Roadshow

- » May 2009
- » AGL External



AGL Renewables & Carbon:

Positioning & Opportunities



# Renewables & Carbon: First Mover Advantage

AGL's strategy benefits from recent Government announcements.

EXISTING AGL STRATEGY	RECENT GOVERNMENT POLICY	POSITIVE AGL OUTCOMES
First mover advantage developing pipeline of renewable energy opportunities	Legislation drafted for expansion of Renewable Energy Target to 45,000 GWh in 2020	~930 MW renewable generation in operation, ~350 MW under construction and identified development pipeline of up to ~2000 MW
Investing in emerging renewable technologies	Establishment of \$500 million Renewable Energy Fund	Investment in Geothermal (Torrens Energy), investigating other emerging opportunities
Early mover investment in renewable generation	Carbon Pollution Reduction Scheme (CPRS) proposed to be introduced in 2011	AGL generation portfolio value to be positively impacted
Work with Loy Yang A to ensure investment value maximisation	Draft legislation proposes Electricity Sector Adjustment Fund (ESAF) to assist coal fired generators	Transitional assistance through ESAF for Loy Yang A
Develop skills in international and domestic emissions trading	Draft legislation proposes international linkages through Kyoto mechanisms	First and only Australian utility to trade on Chicago Climate Exchange, instigated domestic carbon trading ahead of CPRS introduction

## FIRST MOVER ADVANTAGE

- » UK Investor Roadshow
- » May 2009
- » AGL External



# AGL – Wind Growth Pipeline

Developing a portfolio with strategic depth and optionality.

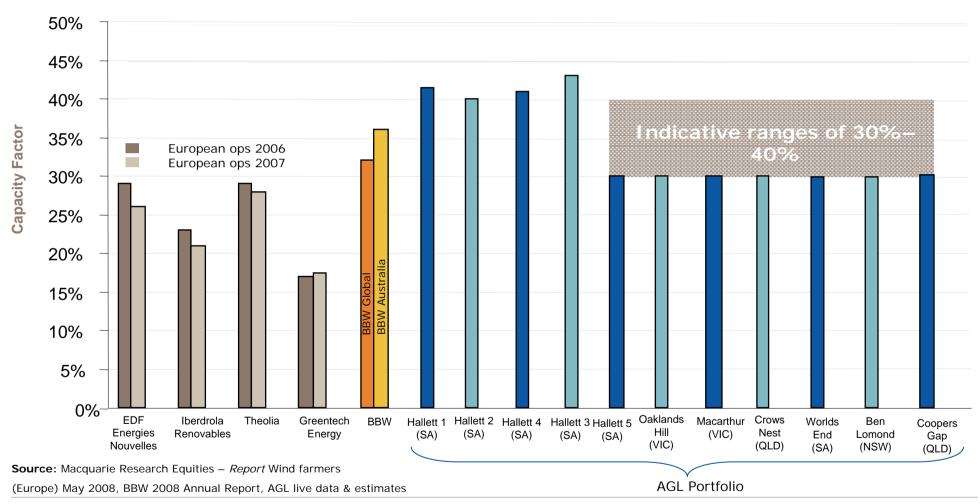
	PROJECT	NOMINAL CAPACITY (MW)	LOCATION	ТҮРЕ	PROJECT STATUS	DEFINITION
Z	Hallett 2	71	SA - Hallett	Wind	Under Construction	Committed
NOI	Hallett 4	132	SA - Hallett	Wind	Under Construction	Committed
RAT	Hallett 3	80	SA - Hallett	Wind	In Development	Probable
ER	Oaklands Hill	63	VIC - West	Wind	In Development	Probable
Z	Hallett 5	50	SA - Hallett	Wind	Permitted	Possible
E E	Macarthur	330	VIC - West	Wind	JV with Meridian	Possible
щ	Coopers Gap	300	QLD - Kingaroy	Wind	Landowner Agreements in place	Possible
8	Crows Nest	150	QLD - Toowoomba	Wind	Permitted	Possible
EWABI	Worlds End	180	SA - Burra	Wind	Permitted	Possible
	Ben Lomond	150	NSW - Armidale	Wind	Landowner Agreements in place	Possible
REN	Other	4 Projects totalling up to ~720	Various	Various	Under Review	Possible

- > Probable Projects: Projects which 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
- > CAPEX: Current AGL indicative installed capex for wind is approximately \$2.7m to \$2.9m / MW
- » UK Investor Roadshow
- » May 2009
- » AGL External



# Wind Capacity Factors - Global

AGL portfolio has world class wind resource.



» UK Investor Roadshow

» May 2009

» AGL External



**Key Value Drivers** 

Key Value Drivers

# Wind Farm Development Process (off balance sheet option)

AGL maintains 'off' and 'on' balance sheet development optionality.

<u>a</u> , a	
$=$ $\omega$	
L S	
ᅙᅘ	
0 0	
<u> </u>	
> 0	
ω <u> </u>	
$\Box$	

1. Site assessment

- wind resource

- grid proximity

- landholder exclusivity agreements

2. Wind farm optimisation

- site layout

- equipment / turbine requirements

3. Regulatory

- Development approval and EPBC (Environmental, Protection, Biodiversity & Conservation Act).

4. Contractual — Construction contracting (EPC), transmission connection and site leases

5. Formulate 25 year capacity offtake agreement for RECs and electricity produced

- Based upon current market pricing
- Upside to future REC / electricity price appreciation retained by AGL
- 6. Formulate 25 year asset management agreement

Financial Process

7. Project sold with offtake and asset management agreement to annuity investor

- Annuity investor (owner) funds remaining capex / construction from date of sale
- AGL maintains construction risk until construction completion
- AGL takes operating risk from end of construction

8. Sale price as bid by annuity owner (valuation based on cash flows of 5. & 6.) less AGL total project forecast construction costs = Development Profits

- Development profits booked on percentage of completion basis in AGL accounts
- Paid in cash
- Construction process typically 18 to 24 months, depending on size

» UK Investor Roadshow

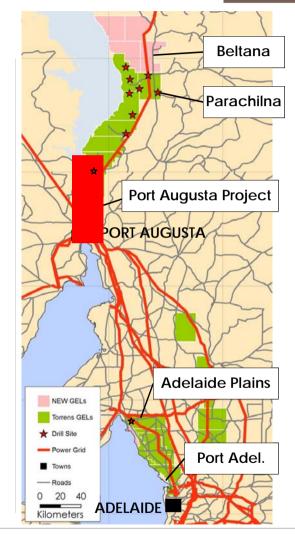
- » May 2009
- » AGL External



## Renewable Generation - Geothermal

Potential to deliver meaningful base load.

- > AGL holds 9.9% equity interest in ASX listed Torrens Energy (TEY)
- > AGL and TEY have 50/50 Geothermal Alliance Agreement to commercialise base load projects
- > TEY permits all adjacent to transmission grid
- > Recent heat flow rates promising
- > TEY responsible for exploration activities providing AGL option to farm-in at permit & project level
- > TEY sole fund upfront exploration & geothermal assessment of first deep well (Confirmation Well)
- AGL may elect to sole fund drilling the Confirmation Well to earn a 50% interest in project and Geothermal Exploration Licence (GEL)
- > AGL will have right to purchase all geothermal energy





- » May 2009
- » AGL External



# Renewable Generation - Hydro

Bogong & McKay Creek (peaking plant) expansion.

- Australia's last, large scale hydro opportunity
- A\$240m, Bogong 140MW peaking plant in Kiewa Valley, Victorian Alpine region
  - » minimises environmental impacts with 6.5 kilometre underground tunnel
  - » also results in 10MW McKay Creek upgrade
- > Forms part of Kiewa Scheme
- > On schedule for completion November 2009
- Once complete, Kiewa Scheme will represent approximately 50% (390MW) of total AGL hydro capacity (790MW)
  - » fully discretionary
  - » drought resilient inflows during current drought still result in full water replenishment 2 to 3 times annually







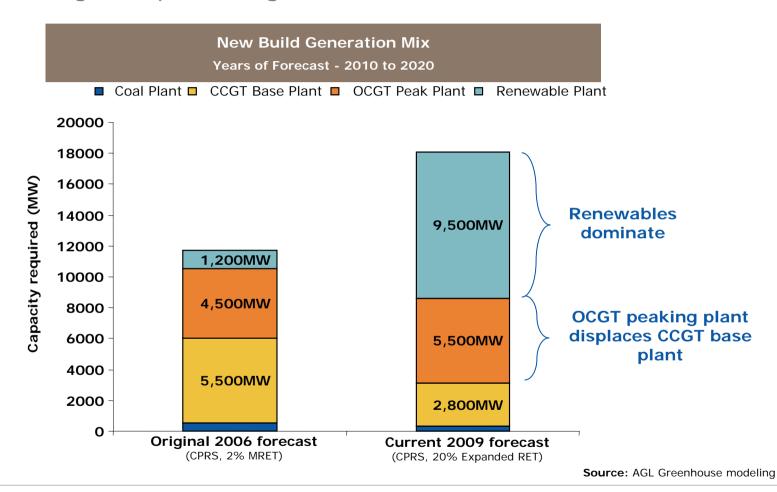
<sup>»</sup> May 2009



<sup>»</sup> AGL External

# Impact of Renewable Policy Settings

Fundamental changes required to generation mix.



» UK Investor Roadshow

» May 2009

» AGL External



# Gas Generation – Growth Pipeline

Developing a portfolio with strategic depth and optionality.

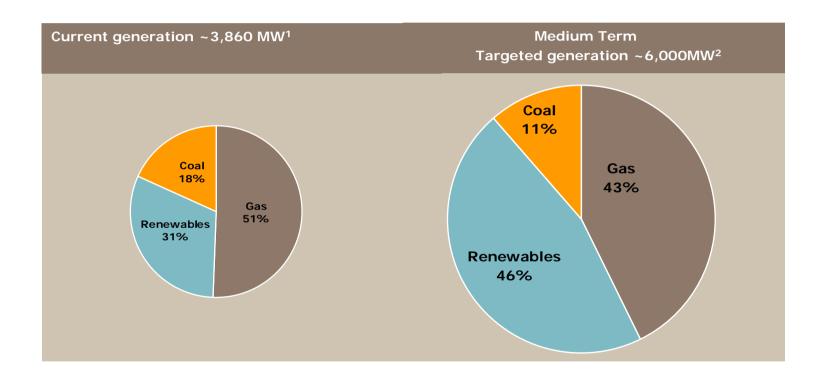
	PROJECT	NOMINAL CAPACITY (MW)	LOCATION	ТҮРЕ	PROJECT STATUS	DEFINITION
	Leafs Gully	360	NSW - Appin	Gas Peaker	In Development, Development Application being assessed	Probable
NO	Tarrone	500	VIC - West	Gas Peaker	In Development	Probable
RATIO	NQ Peaker	360	Nth QLD - Townsville	Gas Peaker	Site Acquired	Possible
Ш	SEQ1	360	SE QLD - Ipswich	Gas Peaker	Site Secured	Possible
N D	SEQ2	350/800	SW QLD - Kogan	Gas Peaker / CCGT	Site Acquired	Possible
GAS	ACT Peaker	500	ACT	Gas Peaker	Pre-Feasibility	Possible
	Other	4 Projects totalling up to 2,010	Various	Gas Peakers	Sites Secured	Possible

- > Probable Projects: Projects which 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
- > CAPEX: Current AGL indicative installed capex for Open Cycle Gas Turbine (OCGT) plant (peaking) is approximately \$0.7m to \$0.9m / MW
- » UK Investor Roadshow
- » May 2009
- » AGL External



## A Carbon Effective Generation Portfolio

Current & future AGL generation portfolios are well positioned in a carbon constrained environment.





<sup>»</sup> UK Investor Roadshow

<sup>»</sup> May 2009

<sup>»</sup> AGL External

<sup>2 = 1 +</sup> projects under consideration / development

# AGL Upstream Gas Portfolio



# Upstream Gas

## Strategic acquisitions to deliver upside growth & optionality.

- > Recent transactions deliver access & control over additional certified 2P reserves with further, material upside potential & optionality:
  - » Investment in Galilee Basin CSG production pilot & exploration program
  - » Entered into option agreement with BG Group
  - » Acquisition of Tri-Star gas bank and minor Spring Gully interests
  - » Acquisition of Gloucester Basin reserves & development program
  - » Takeover of Sydney Gas
  - » Farm-in to Innamincka tenements
  - » Take up of Moranbah / Bowen Basin tenements<sup>1</sup>

AGL Share of CSG reserves	As at 31 Dec 08		As at 30 Jun 08	
(PJ)	) 2P 3P		2P	3P
Moranbah (50%)	416	1,051	277	867
Camden (100% following Sydney Gas acquisition)	82	108	41 <sup>2</sup>	54 <sup>2</sup>
Gloucester (100%)	175	370	-	-
Spring Gully (various)	6	8	-	-
Total	679	1,537	318	921

- 1. Full back in rights to 50% of PL 223 & PL 224 for \$3.9m (representing 50% of past costs) now responsible for 50% of future costs
- 2. AGL interest was 50% as at 30 Jun 08
- » UK Investor Roadshow
- » May 2009
- » AGL External



# Upstream Gas - Growth Pipeline

Developing a portfolio with strategic depth, duration and optionality.

	North Queensland – Bowen Basin	Moranbah: Continuing development activities bolstered by reserves upgrade & AGL back-in two petroleum leases
	(AGL 50%)	North Queensland Energy: Ongoing portfolio benefits of gas supply & electricity dispatch rights
	Sydney Basin	Camden: Development drilling set to maintain moderate production growth – working to consolidate Sydney Gas Limited (SGL) takeover & extract operational synergies
	(AGL 100%)	Hunter: Exploring in areas of best prospectivity with the aim of achieving reserves certification by FY10
GAS	Gloucester Basin (AGL 100%)	Working to consolidate acquisition and realise synergies through exploration and development concurrent with Hunter – updating reserves certification by end FY09
JPSTREAM GAS	Galilee Basin (AGL 50%)	Five-spot pilot test at Glenaras drilled & awaiting completion & construction of water handling facility – production testing to commence in 2009
UPST	Innamincka – Cooper Basin (AGL 35% – 37.5% farming in)	Drilling to assess CSG prospect due to commence in 2009
	CSG technical / operational resources	Existing in-house technical team at Camden, North Sydney & Brisbane (40 people) has merged with an additional 14 people from Gloucester – AGL may also offer employment to some employees of SGL – staff levels are adequate to address the expanded & extended operations across Sydney / Gloucester Basins & elsewhere
	CSG infrastructure resources	Resources for exploration & development drilling, as well as construction of processing, compression & pipeline facilities are in place or well advanced to deliver 100% of AGL's capex program over the forecast period

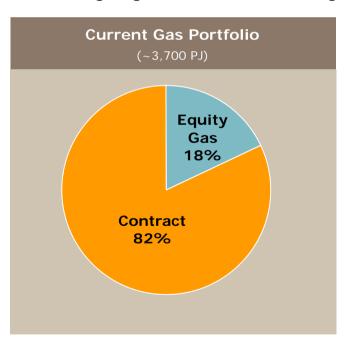
- » UK Investor Roadshow
- » May 2009
- » AGL External

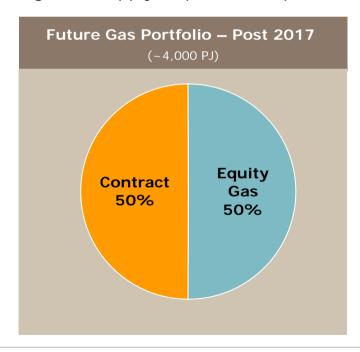


# Upstream Gas – Duration & Flexibility

Delivering on medium term strategic target of 2,000PJ equity gas.

- > Domestic gas strategy focus
- > Existing portfolio flexibility allows timely development of gas production projects
- > AGL will continue to be a significant contractor of wholesale gas
- Anticipate existing investments & Gloucester, Sydney Basin/Hunter, Galilee & Innamincka interests together with ongoing wholesale contracting will satisfy long term supply requirements post 2017





- » UK Investor Roadshow
- » May 2009
- » AGL External



# **<b>MAGL** Way Forward

## **NSW Privatisation**

Disciplined approach to industry consolidation opportunity.

- > Support privatisation awaiting final detail of structure
- > Support Gentrader model risk allocation details key
- Depending on final structure, AGL remains interested in retail and/or gentrader assets
- AGL's SAP retail solution (Phoenix) completely scaleable for any combination of retail assets
- AGL's NSW market position makes organic growth a viable alternative
- Regulatory price settings a key valuation issue for retail businesses
  - » Recent IPART draft (electricity) decision 'directionally' correct















- » May 2009
- » AGL External



# **Strategic Priorities**

Ongoing, disciplined roll out of integrated strategy.

# Strategic priorities

- > Expansion of industry leading renewables portfolio
- > Exploration and development of gas acreage and reserves
- > Development of gas generation portfolio
- > Delivering benefits of Phoenix Business Transformation Program
- Integrated strategy delivers:
  - » Ongoing growth opportunities / optionality; and
  - » Sustainable returns in dynamic economic conditions and market cycles

- » May 2009
- » AGL External



## Further Information / Contacts

A range of information on AGL Energy Limited including ASX & Media Releases, Presentations, Financial Results, Annual Reports and Sustainability Reports is available from our website: www.agl.com.au

alternatively, contact:

## **Graeme Thompson**

Head of Investor Relations

AGL Energy Limited

phone: +61 2 9921 2789

mobile: +61 (0) 412 020 711

e-mail: gthompson@agl.com.au

» UK Investor Roadshow

- » May 2009
- » AGL External



# Supplementary Information



# 1H09 Result Highlights

Delivering on strategy, creating value & long term growth.

FINANCIAL	> > > >	Revenue: Operating EBIT from continuing operations: Statutory NPAT: Underlying NPAT: Interim dividend 26 cps, fully franked – DRP in ope	\$2,977.7m, \$322.7m, \$1,654.8m \$192.5m, eration	↑ 5.1% ↑ 10.2% ↑ 5.3%
OPERATIONAL	> > > >	Maintaining retail margins (+0.1%), customer acception core SAP (Phoenix) customer migration completedge book continues to perform well, generation Strong wholesale gas portfolio performance Generation development projects on time and bud	plant reliability & performance solid	✓ ✓ ✓ ✓
STRATEGIC	> > > >	Non core asset sales deliver \$1.5 billion after tax  Balance sheet strength – reinstated BBB stable ou  Deep portfolio of renewable and gas generation de  Upstream gas acquisitions to deliver long term val  Phoenix focus now turns to Business Transformation	evelopment projects ue and growth	✓ ✓ ✓ ✓

- » UK Investor Roadshow
- » May 2009
- » AGL External



# 1H09 Profit & Loss (excluding significant items & fair value movements)

Result in line with full year guidance.

6 months to \$m	31 Dec 2008	31 Dec 2007	Change
Revenue	2,977.7	2,833.8	5.1%
Operating EBITDA	443.9	471.4	(5.8%)
Operating EBIT			
Retail	145.7	134.8	8.1%
Merchant	211.9	156.9	35.1%
Gas & Power Development (incl pro forma adjustment)	34.5	82.0	(57.9%)
Energy Investments	30.5	50.6	(39.7%)
Centrally managed expenses	(63.5)	(51.4)	23.5%
Total operating EBIT	359.1	372.9	(3.7%)
Less: Net finance costs	(60.9)	(94.4)	(35.5%)
Profit before tax	298.2	278.5	7.1%
Less: Income tax expense	(105.7)	(95.7)	-
Underlying NPAT	192.5	182.8	5.3%



<sup>»</sup> UK Investor Roadshow

<sup>»</sup> May 2009

<sup>»</sup> AGL External

# Disciplined Capital Management

Well positioned for future growth opportunities.

- > October 09 maturities covered by cash reserves
- > Immediate debt capacity of ~A\$1.2b to A\$1.8b
- > Reinstated BBB stable credit rating

Facilities @ 20 Feb 2009 \$m	Limit	Usage	Available	Maturity
Current				
Revolving credit facility	500.0	-	500.0	Oct 09
Term facilities Tranche B	633.3	633.3	-	Oct 09
Non Current				
Term facilities Tranche A	222.5	222.5	-	Oct 10
Revolving credit facility	327.5	-	327.5	Oct 10
Term facilities Tranche C	886.7	886.7	-	Oct 11
Total debt facilities	2,570.0	1,742.5	827.5	
Cash	-	1,555.0	-	
Net Debt	-	187.5	-	

<sup>»</sup> UK Investor Roadshow



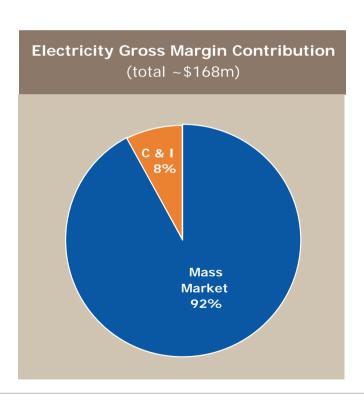
<sup>»</sup> May 2009

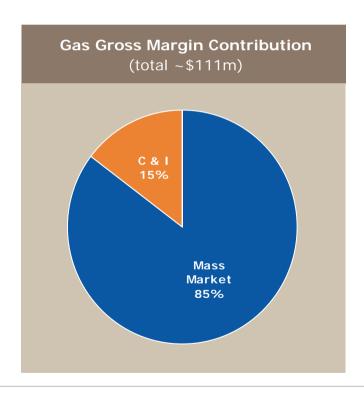
<sup>»</sup> AGL External

# Defensive Earnings Profile

Robust earnings during deteriorating economic conditions.

Majority of electricity & gas gross margin is derived from mass market customer base which historically has had limited volume impacts during economic downturns





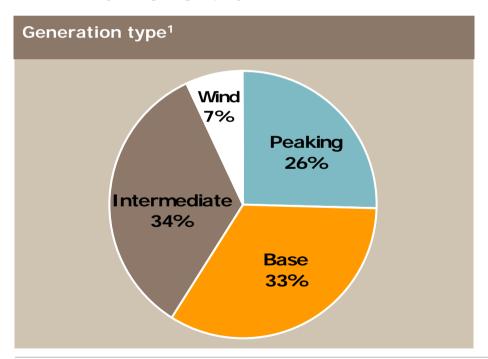
- » UK Investor Roadshow
- » May 2009
- » AGL External

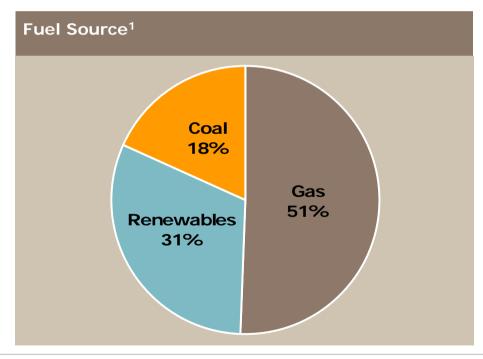


# Generation – Building a Balanced Portfolio

Diversity mitigates market risks & benefits from a carbon constrained future.

- > Diversity of fuel type renewables, gas & coal
- > Diversity of generation type base, intermediate & peak
- > Diversity of geography across all NEM states/nodes





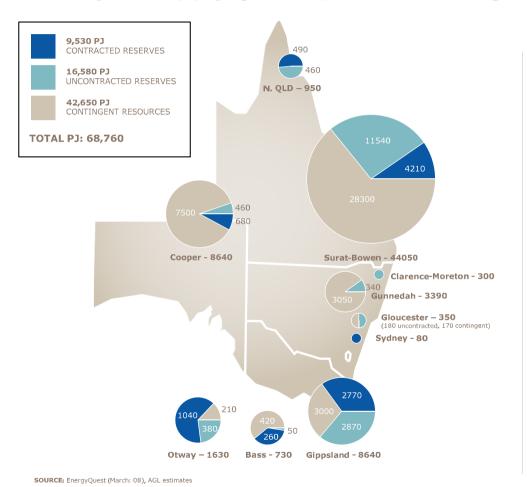
1 = Owned & / or operated including plant under construction

- » UK Investor Roadshow
- » May 2009
- » AGL External



## East Coast Gas - Substantial Reserves & Duration

Security of supply given quantum of ongoing Eastern Australia gas reserves.



Eastern Australia 2P gas reserves and contingent resources almost 70,000 PJ, of which only ~14% are contracted:

- Further increases are likely, particularly CSG reserves and resources
- Supply covers current domestic gas sales (~640 PJ pa) for over 100 years
- Could cover potential domestic gas sales and LNG exports<sup>1</sup> of ~1,300 PJ pa for well over 40 years

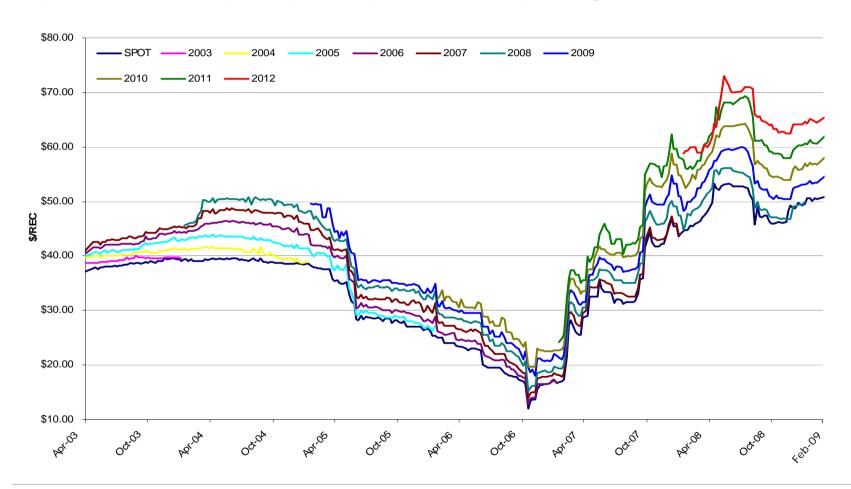
1. Based on three LNG trains.

- » UK Investor Roadshow
- » May 2009
- » AGL External



# Renewable Energy Certificates (RECs)

## Expanded RET to put upward pressure on pricing



» UK Investor Roadshow

» May 2009

» AGL External





# Electricity Flat Forward Price Curve (Calendar year contract)

Carbon, coal pricing and electricity demand growth to drive pricing.



» UK Investor Roadshow

» May 2009

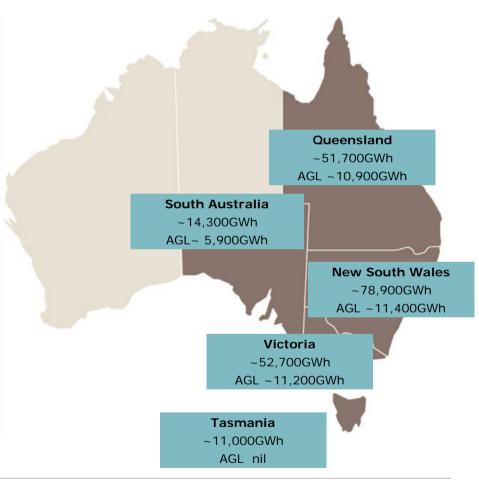
» AGL External





# Australia's National Electricity Market (NEM)

- National Electricity Market (NEM) began operating as a wholesale market for supply of electricity to retailers and end-users in 1998
- World's longest interconnected power system –
   4,000 km (2,500 miles)
- Exchange between electricity producers & electricity consumers facilitated through pool - output from all generators aggregated & scheduled to meet demand.
- Market operates with a price cap of \$10,000 per MWh (VoLL = Value of Lost Load)
  - » Dispatch price every 5 mins, 6 dispatch prices every 30 mins to determine spot price for each trading interval for each NEM region

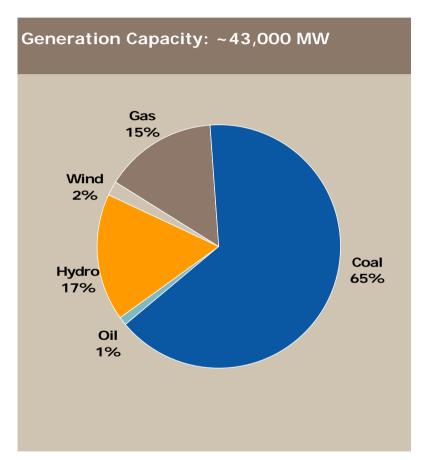


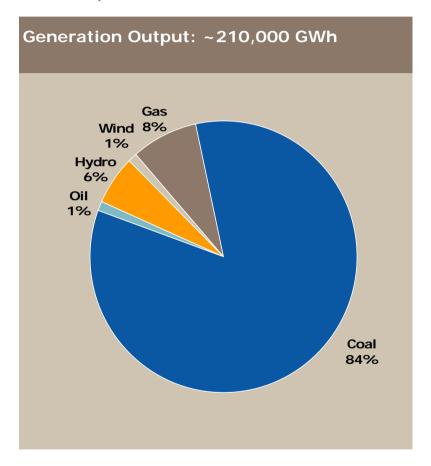
- » UK Investor Roadshow
- » May 2009
- » AGL External



## **Australian NEM Generation Mix**

Coal dominates the current Australian landscape.







<sup>»</sup> UK Investor Roadshow

<sup>»</sup> May 2009

<sup>»</sup> AGL External