



NSW Gas Users & Infrastructure Needs

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Presentation to AIE Symposium

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EnergyAdvice Pty Ltd – our Company

- Independent advisory company in operation since 1997
- Team of 25 people in offices located in Melbourne, Sydney and Brisbane
- Clients include large energy users throughout Australia
- Advisor to major users in:
 - Electricity, gas and renewable markets
 - Environmental and carbon management
 - Energy efficiency, benchmarking and reporting
 - Energy usage monitoring, reporting and tariff optimisation
 - NGERs
 - Energy planning and policy
- Recognised as leading advisor to major energy users in the eastern States gas market

EnergyAdvice activities in NSW gas

- Advisor on gas contracts / procurement
 - ~15 PJ pa of clients under management
 - Clients include:

ACI	CSR
Alcoa	Hydro Aluminium
Brickworks	Tomago Aluminium
- Advisor on regulatory issues
 - Review of Jemena Gas Networks Access Arrangement

Users needs – items for discussion

- Key user issues over the past decade
- Key developments over past decade
- Potential new developments
- Future perspectives for users
- Market snapshot 2020

Key User Issues over past decade

- Security of supply
- Market has generally responded effectively to any supply crisis
 - Santos – New Years Day 2004
- Winter gas curtailment – June 2007
 - Large gas users were curtailed
 - Supply curtailment to large users resulting from commercial failure
 - Insufficient linepack in two pipelines – particularly MSP – to meet market demand
 - Led to introduction of Gas Continuity Scheme
 - Led to supplier “reluctance” to contract
- Lack of available pipeline capacity on MSP and EGP

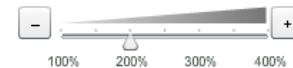
Key User Issues over past decade

- Variable levels of retail / supplier competition
 - AGL, Origin Energy, TRUenergy
 - EnergyAustralia, Country Energy
 - Santos, ExxonMobil/BHPP
- Lack of market price transparency
 - GMBB (Gas Market Bulletin Board)
 - Commenced July 2008
 - Provides capacity information
 - No commercial or trading mechanism
 - STTM (Short Term Trading Market)
 - Commenced 1 September 2010
 - Provides some pricing visibility
 - Lack of market depth
 - Watching brief by users

Gas Market Bulletin Board - today



Gas Day: 18 Oct 2010



Legend

- Demand Zone
- Production Zone / Point
- Location
- Compressor Station
- Proposed BB Pipeline
- BB Pipeline (Green/Amber/Red indicate LCA)
- BB Lateral Pipeline
- Gathering Pipeline
- Injection
- Nomination
- Capacity
- Flow
- Non BB Pipeline

Map's Visual Elements

- Show Data Panels
- Show Default Gas Flow Direction
- Show BB Lateral PipeLines
- Show Non BB Pipelines
- Show Physical Map

[BB Map User Guide](#)

STTM – today's prices

STTM GAS PRICE* & QUANTITY

<u>Hub/Date</u>	<u>Ex Ante Price</u>	<u>Ex Ante Quantity</u>	<u>Ex Post Price</u>	<u>Ex Post Quantity</u>
Adelaide				
16 Oct 2010	\$3.18/GJ	65 TJ	\$3.23/GJ	72 TJ
17 Oct 2010	\$3.12/GJ	65 TJ	-	-
18 Oct 2010	\$2.60/GJ	76 TJ	-	-
Sydney				
16 Oct 2010	\$1.50/GJ	262 TJ	\$1.11/GJ	260 TJ
17 Oct 2010	\$1.11/GJ	239 TJ	-	-
18 Oct 2010	\$1.20/GJ	270 TJ	-	-

Key Developments over the past decade

- Eastern Gas Pipeline – Gippsland Basin gas into NSW
- QSN Pipeline
 - Linking Ballera to Moomba
 - SW QLD Pipeline reverse flow
 - Physical supply route for QLD gas into NSW and SA
- CSG in SE QLD
- CSG in NSW
 - Eastern Star Gas
 - Santos
 - Sydney Gas Limited (AGL)
 - Apollo Gas (Dart Energy)
 - Comet Ridge
 - Metgasco

Key Developments over the past decade

- Gas-fired power stations

<u>Power Station</u>	<u>Developer</u>	<u>Capacity</u>	<u>Commissioned</u>
Smithfield	Marubeni	160 MW	1997
Wilga	Eastern Star Gas	11 MW	2004
Tallawarra	TRUenergy	435 MW	2009
Uranquinty	Origin Energy	640 MW	2009
Colongra	Delta Electricity	667 MW	2009

Potential New Developments

- Offshore Sydney Basin (Advent Energy / Bounty Oil & Gas)
- CSG in northern NSW
- Pipeline link from northern NSW into Sydney/Newcastle
- Queensland Hunter Gas Pipeline
- Base load gas-fired power stations

Future Perspectives

- Forecasting
 - Limited requirement to date for load forecasting by users
- Contracting
 - Security of supply, not just price
- Pricing
 - Uncertain impact of CSG and LNG projects
 - Market depth and supply alternatives will be key
- Pipelines
 - Current lack of available capacity encourages need for new pipelines and supply sources
- Distribution
 - Increasing need for users to consider becoming self-contracting users

Market Snapshot 2020

- Pipeline link from SE QLD into Sydney / Newcastle
 - Missing link Mark 2
- More mature and effective market
 - Gas trading
 - Physical swaps
 - Question remains what level of market depth
- Base load gas-fired power stations operational
 - Question remains what role for Government owned generation capacity
- Increased supplier options
 - Question remains what level of upstream / market consolidation
- Anticipated higher gas market prices
 - Question remains what impact of LNG markets, electricity generation, pipeline capacity, market depth