Australian Gas Market Update
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Australia’s Four Gas Markets – Key Themes

Western Market
- Oversupply
- Low Prices
- Continuing exploration success
- Key Project Decisions looming

South-eastern Market
- Undersupply
- High Prices
- Exploration subdued
- Electricity Market Transition Issues

Northern Territory Market
- Oversupply
- Low Prices
- High transport costs
- Reason for cautious optimism

Queensland Market
About RISC

RISC is an independent oil and gas consultancy firm. We have completed over 2,000 assignments in more than 70 countries for over 500 clients and have grown to become an international oil and gas consultant of choice.

RISC has been working in partnership companies for over 25 years, providing impartial technical, commercial and strategic advice to our clients, and supporting their interests in the oil and gas industry. We use an integrated project team approach to offer a broad and innovative perspective on oil and gas projects around the world, enabling our clients to make their business decisions with confidence.

We pride ourselves on being a full-service firm with many years of practical experience in both conventional and unconventional petroleum resources. Our staff are some of the most experienced and talented in the industry and we quickly identify the key issues and opportunities and provide a qualified perspective that gives real answers and long-term solutions.
Western Market Overview

- Market oversupplied primarily due to domgas reservation policy
- Price low due to lack of new demand and oversupply
- Ongoing exploration and future development expected to maintain oversupply and low prices for foreseeable future
Maximum supply capacity – Existing suppliers and Projects

- Assuming all of the identified projects proceed and supply the existing domgas base demand forecast there is excess supply capacity out to beyond 2040, price likely to remain low for foreseeable future.

- New domgas demand, or export solutions for the prospective projects, are likely to be stimulated in 2021/22 and again in 2025/26 to soak up excess supply capacity.

- The NWS LNG facilities will begin to be available for new gas supplies from ~2021 with capacity rising quickly.
Northern Territory Market Overview

- Market oversupplied primarily due to low demand
- Exporting to Queensland to utilise spare supply
- Price low due to high transportation costs and oversupply
- A focus for exploration and future development reason for significant optimism
- Caution needed when applying any new domgas reservation policies
Queensland Market Overview

- Market undersupplied due to LNG export overcapacity
- Importing gas from NT and exporting to south-eastern market
- Cheapest gas prices on eastern seaboard but...
- CSG proving high cost to develop away from sweet spots cause for concern going forward
Market Undersupplied for the first time in a generation
- Price increased dramatically and now linked to LNG spot price + transport/import costs
- Drilling moratoria reducing prospect of new supply
- Significant Electricity market transition underway
East Coast Gas Market Trend

Low Domestic Demand Day

High Domestic Demand Day

Iona Injecting

Iona Extracting
Electricity Generation (GPG) Trends

- Increasing wind (and solar) electricity capacity will crowd out base load suppliers, eventually coal fired generation will be removed from the market leaving GPG as the major generator.

- Last 12 months saw GPG use approx. 100 PJ of gas or avg 300 TJ/d, 60% in South Australia.
Electricity Generation (GPG) Trends

- Victoria set to increase wind power capacity dramatically (increase of over 80% in next 12 months alone).

- Already tight gas market in winter likely to see peak demand of gas for GPG to grow strongly from current peak of 200-400 TJ/d to more than 600 TJ/d. Peak days to occur more often as coal generation declines in response to growth of wind and solar.
East Coast Gas Market Forecast

Southern States Supply Gap Range

- Low Domgas Supply Case
- High Domgas Supply Case

Annual Shortfall exceeds SWQP capacity

LNG Imports begin to meet peak demand shortfall

Gas Market

FSRU

Vic

Gas
Australia’s Four Gas Markets – Conclusions

- Oversupply – will continue
- Low Prices – will continue
- Key Project Decisions looming on both supply and demand side

- Oversupply – may be short lived
- Low Prices/High transport costs
- Reason for cautious optimism – but scale required

- Undersupply – LNG Imports loom
- High Prices - Remain
- Energy transition Issues to exacerbate problems
A quantitative analysis of the unconventional gas potential of Eastern Australian basins has been undertaken using a spatial analysis methodology of play fairway sweet-spot mapping. Play components considered important for the presence and recovery of unconventional gas were mapped across the plays of interest. Modelled horizontal well type curves and development plans from North American analogues for unconventional gas production have been used to quantify the sweet-spot mapping using a methodology RISC has developed called common recovery segment mapping.

The gas price slider bar provides interactive break even development maps for all of the recognised unconventional plays in Eastern Australia.

A quantitative understanding of unconventional resource potential at different gas price scenarios allows us to understand how potentially unconventional resource developments could contribute towards the Eastern Australia energy supply mix.

Deliverables
The Eastern Australia unconventional play atlas is provided in both hyperlinked and interactive pdf report and as an optional ArcGIS project.

The Eastern Australia gas market study is provided as a pdf and an optional excel model.