

The Edge – Gas Market Review

by Josh Stabler (23 March 2016)

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LNG Facility Gross Upstream and Downstream

APLNG Equity Position

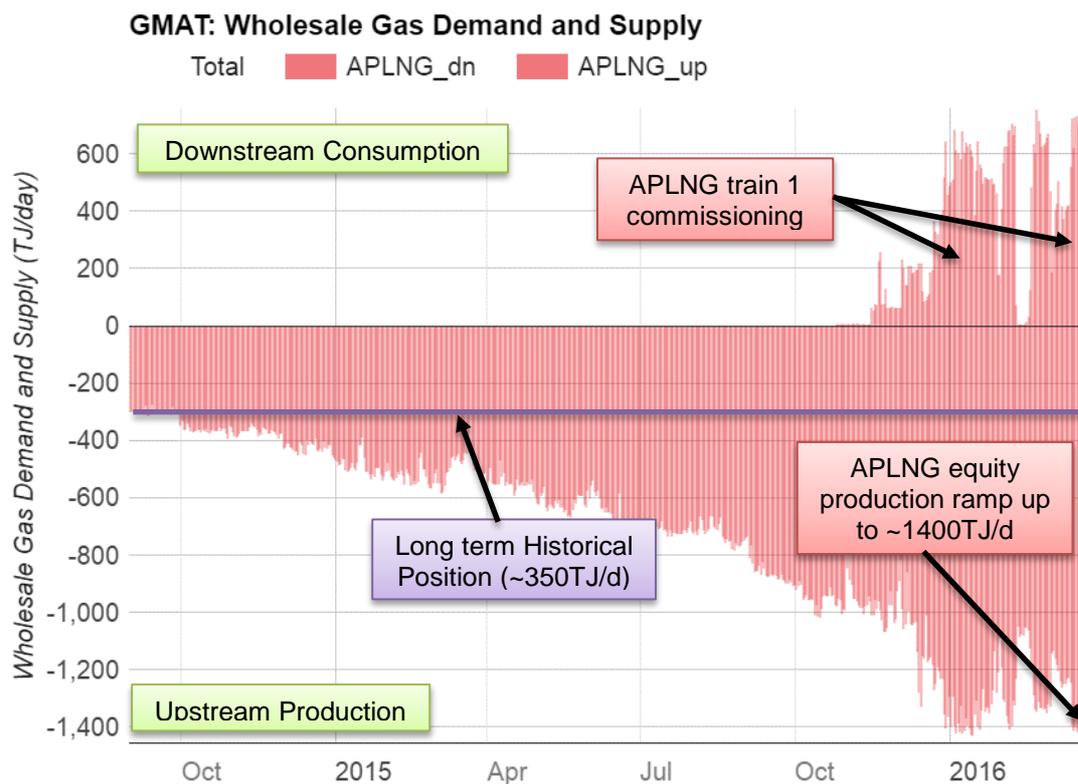


Figure 1 – Gross upstream and downstream equity position for APLNG
(GMAT Permalink: [Wholesale Gas Market](#))

Figure 1 (above) is based on equity ownership of upstream and downstream assets only for APLNG. So this means that they are not encumbered by either short or long term contractual positions.

Two interesting observations can be made. Firstly the APLNG position includes long term historical production levels (from Talinga, Kenya, etc) which accounts for around 350TJ/d. However, this has grown to around 1400TJ/d in the last few weeks. On the LNG consumption side of the fence, the first train consumes around 700TJ/d.

GLNG and QCLNG Equity Position

Figure 2 (below) shows the equity gross upstream (negative side of the graphic) and downstream (positive side) positions for QCLNG and GLNG compared against the total Queensland market consumption. The imbalance between the downstream (~2000-2200) and upstream (~1500) equity positions in Queensland is currently about 500TJ/d short.

To be clear, this is based on the equity positions and ignores the long term and short term gas contracts that are in place. But it does highlight the amount of traded gas quantities in the market.

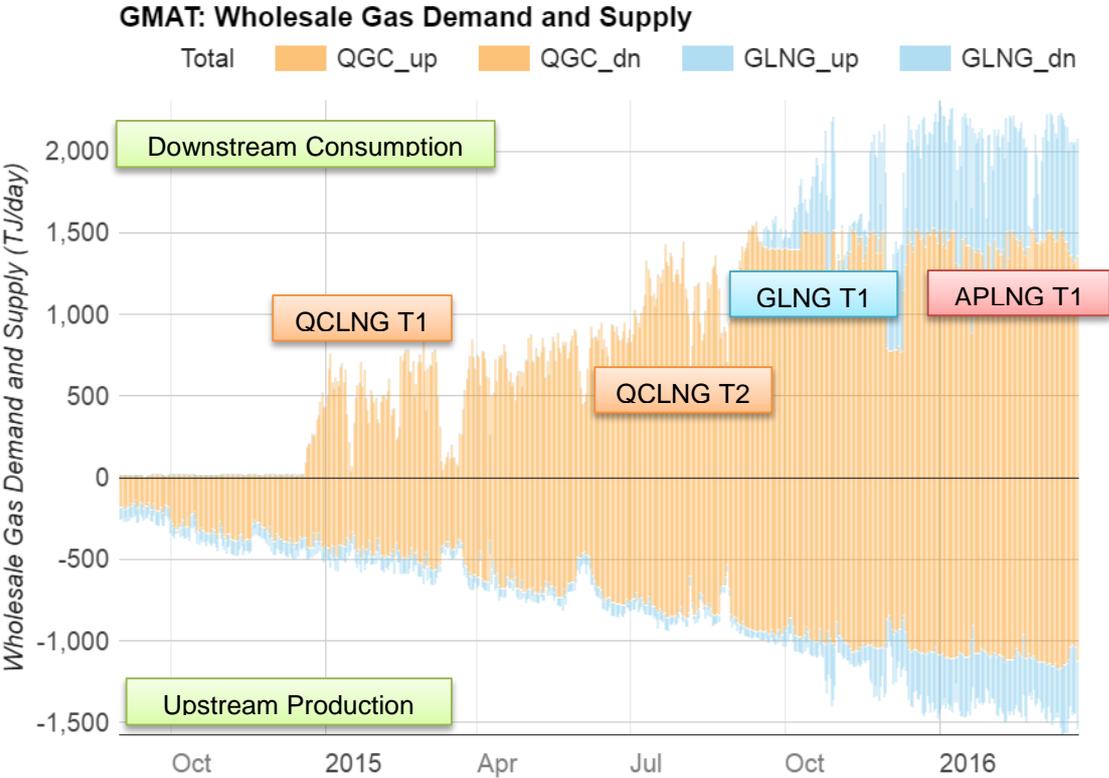


Figure 2 - Gross upstream and downstream equity positions for QCLNG and GLNG (GMAT Permalink [Wholesale Gas Market](#))

Changing East Coast Gas Consumption Landscape

The following analysis investigates the shift over the last four years in terms of gas consumption for the entire east coast gas market.

The graphics have been aggregated into four major asset classes (CCGT, OCGT, Load (which includes Retail, Commercial & Industrial) and LNG) and then averaged over weekly blocks of time.

Figure 3 shows east coast consumption volumes stacked adjacently which highlights the growth of the entire market over the period to nearly 4,500TJ/d during summer when domestic retail load is subdued.

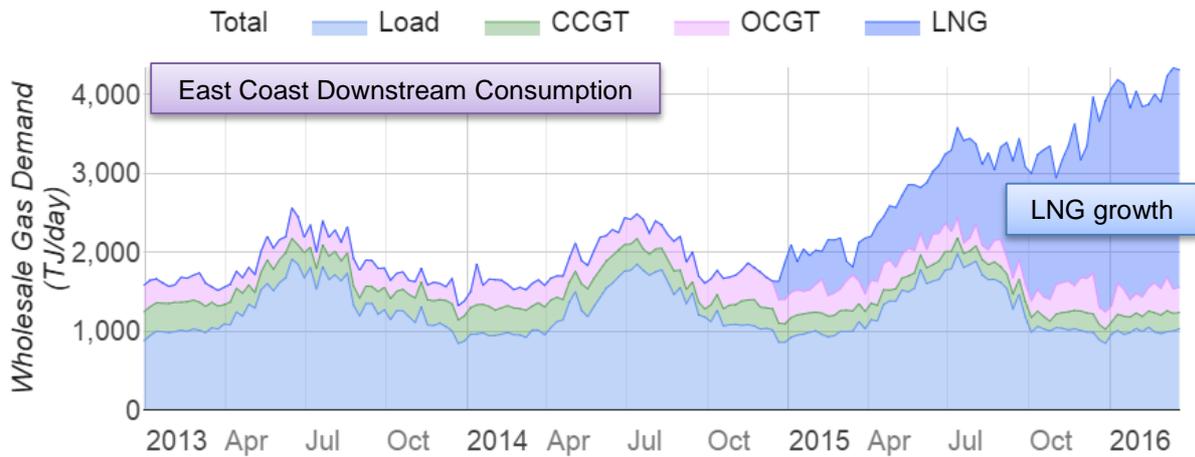


Figure 3 – East Coast Gas Consumption by Asset Class [Weekly Stacked] (GMAT v1.7)

Figure 4 shows east coast consumption volumes layered by maximum consumption which helps compare the impact of LNG on domestic gas generation as well as highlighting the 1000TJ/d shift on domestic customers between winter (high) and summer (low) profiles.

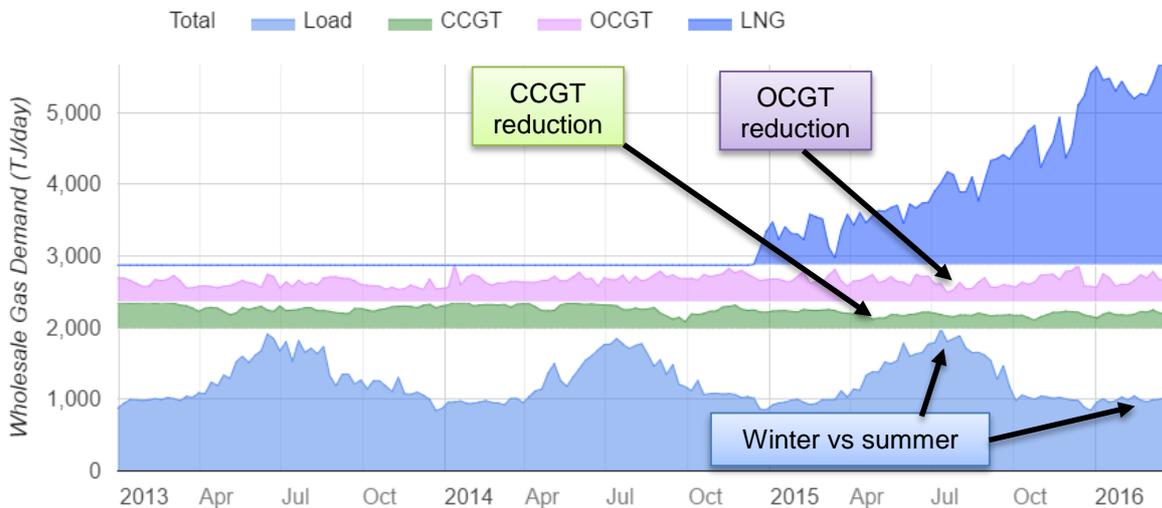


Figure 4 – East Coast Gas Consumption by Asset Class [Weekly Layered] (GMAT v 1.7)

Finally, Figure 5 shows the asset class market unit revenue with load based on retail market outcomes and gas generation by spot market returns per GJ. This infers the spark spread between the gas and electricity markets.

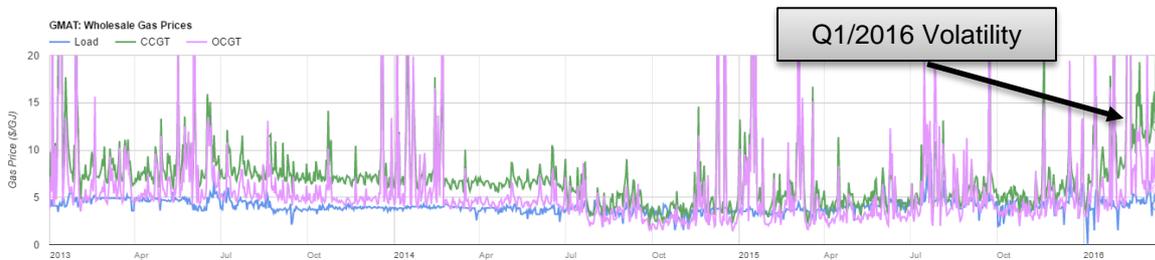


Figure 5 – East Coast Wholesale Gas Prices by Asset Class [Weekly] (GMAT v1.7)

Changes in South West Victoria

The last Edge investigated the Port Campbell production facilities including the decay in total production volumes over the last six years. To follow on from this investigation, we have looked at the responses in the region.

Event A – Winter 2015

During winter 2015, Iona increases capacity which is delivered by South West Pipeline (between Port Campbell and Melbourne) to meet the Melbourne winter retail demand. This has occurred in each historical winter.

Event B – 2016 deliveries to Adelaide

From the start of 2016, South West Pipeline shifted to consistent westerly deliveries (i.e. Melbourne to Port Campbell) which is subsequently matched with increased deliveries along the South East Gas Pipeline to Adelaide. Since 2009, it has been rare to see westerly volumes flowing along the SWP for any prolonged period.

Event C – Otway Outage

The outage at Otway (since 28 February) has seen a reciprocal increase in the volumes on the South West Pipeline to maintain volumes on SEA Gas pipeline to Adelaide. The volumes on the SWP are currently at record historical levels (90-100TJ/d).

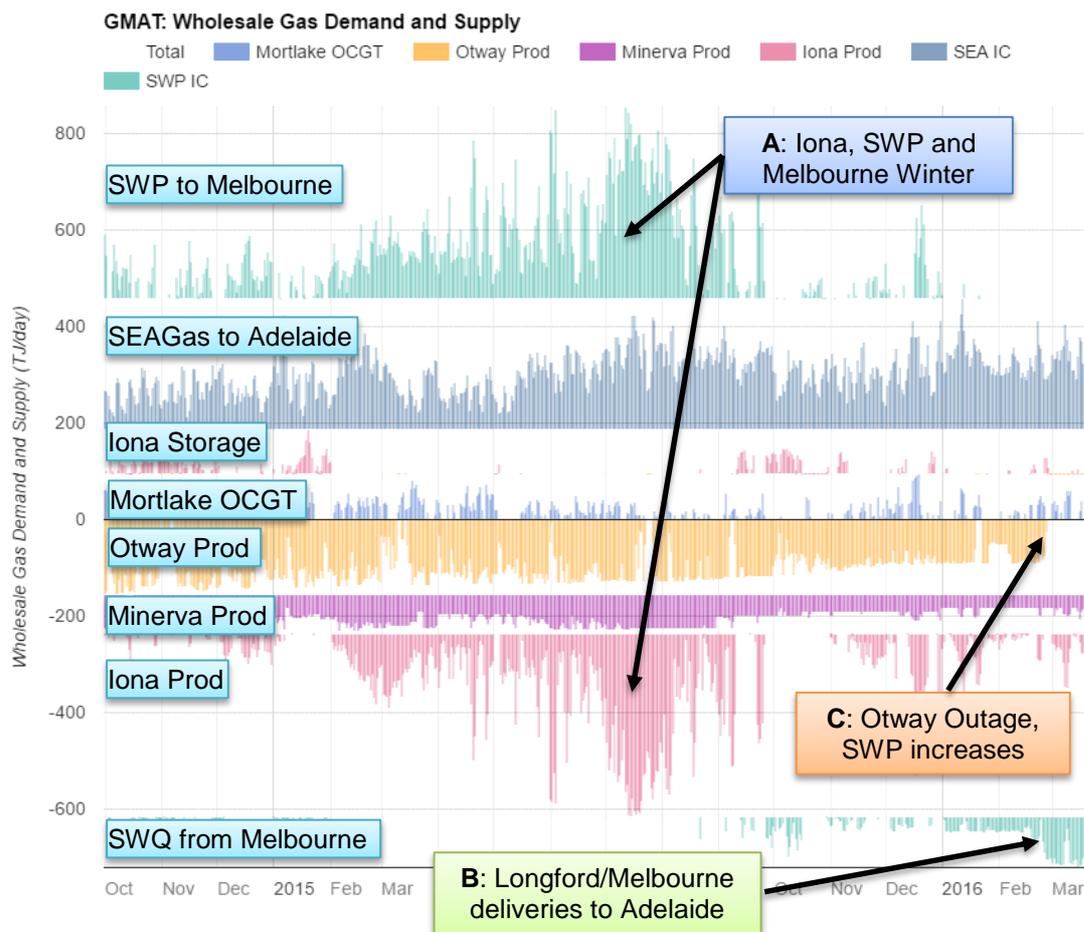


Figure 6 – Port Campbell SubRegion Investigation for period Oct 2014 to Mar 2016

<https://www.energyedge.com.au/Apps/GasMarket/Analysis/GenerationSummaryWithRange.aspx>

Browse FID delayed

News sources: [Sydney Morning Herald](#)

The LNG market just got a little smaller. Well, the planned outlook anyway.

The mooted \$40 billion Woodside/Shell's Browse Floating LNG facility was due for final/financial investment decision later this year but has been delayed due to the fall in the global oil markets.

Getting access to the Gas Market Analysis Tool (GMAT)

Interested in what you see but currently don't have access to GMAT? That is easily solved. For those with existing corporate licences, it is free for you to join up. For others, contact Josh Stabler for a presentation.

To register a new user with GMAT:

- Head to <https://www.energyedge.com.au/User/AddUser.aspx>;
- Answer a few questions to set up your personal account;
- Activate your account via the emailed link;
- We will need to activate your account from our end as well; and
- Total process usually takes about 10 minutes.

After that, just head to <https://www.energyedge.com.au/Apps/Apps.aspx> and start investigating the Gas Market Analysis Tool.

Further Information

Looking for more information or the Energy Edge Capability Statement?

Contact **Joshua Stabler** for Energy Edge's wide range of services including:

- Gas, Electricity or Environmental Market consultation or advisory services;
- Due Diligence of energy market assets, mergers and acquisitions;
- Risk and Analytics of correlated commodities, earnings-at-risk and more; and
- Trading and commercial strategy and advice.

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