

Gas fired recovery - pipeline reform

The next wave of gas pipeline reform was announced in September by Angus Taylor, Minister for Energy and Emissions Reduction and Keith Pitt, Minister for Resources, Water and Northern Australia as part of a package of policy initiatives for the gas sector.

These were described as positioning gas to help make “energy affordable for families and businesses and supporting jobs as part of Australia’s recovery from the COVID-19 recession”. The planned reforms cover the gas upstream industry and pipeline industry.

The next wave of pipeline reform

The reforms that will have a direct impact on the gas pipeline industry include:

- identifying priority pipelines and critical infrastructure as part of an inaugural National Gas Infrastructure Plan to highlight where the government will step in if the private sector doesn't invest;
- reforming the regulations on pipeline infrastructure to promote competition and transparency; and
- improving pipeline access and competition by kick-starting work on a dynamic secondary pipeline capacity market.

This discussion paper focuses on the secondary pipeline capacity market.

Secondary pipeline capacity

Primary capacity is pipeline capacity that is sold by the pipeline owner to shippers under gas transport agreements with terms typically of one to 15 years. Secondary capacity is primary capacity that has been sold by shippers to other shippers.

Historically pipeline capacity in Australia could, on some pipelines, be sold from one shipper to another using an assignment of capacity under gas transport agreements. This is a cumbersome approach to selling capacity. For a seller of capacity to be relieved of its obligations to the pipeline owner it is necessary to establish agreements between the parties to the transaction and the pipeline owner.

The sale of capacity is confidential to the shippers that are parties to the transaction and the pipeline owner. These transactions happened infrequently, if at all.

In 2012, APA introduced a service that was a more efficient approach to selling capacity, called Operational Capacity Transfers, and AEMO introduced a capacity listing service. However market interest in these services was limited.

The first significant steps to liberalising how pipeline and compression facility capacity is marketed in Australia occurred in 2019 with the implementation of the capacity trading reforms that were developed by the Gas Market Reform Group at the request of the COAG Energy Council.



Initial capacity trading reforms

The capacity trading reforms apply to pipelines in eastern Australia that provide third party access. Surplus primary capacity is sold through either a compulsory day-ahead auction of capacity or a voluntary capacity trading platform.

Shippers contract for more primary capacity than is required on a typical day to be able to manage seasonal peaks or higher than expected demand for gas driven by operational activities at plants. Retailers may also have surplus primary capacity if customers switch retailers. The primary capacity that is not required on a day has been defined as Contracted But Unutilised capacity.

The capacity purchased in the day-ahead auction is Contracted But Unutilised capacity. The reserve price for capacity sold in the auction is \$0/GJ and the pipeline owner receives the proceeds from the sale of auction capacity.

The capacity trading platform includes products for firm forward haul, park and compression services with terms as short as the following day and up to a month. A seller of capacity on the capacity trading platform receives the proceeds from the sale of capacity.

Shippers enter into an Operational Transportation Services Agreement with pipeline owners to manage the use of secondary capacity directly with the pipeline owner.

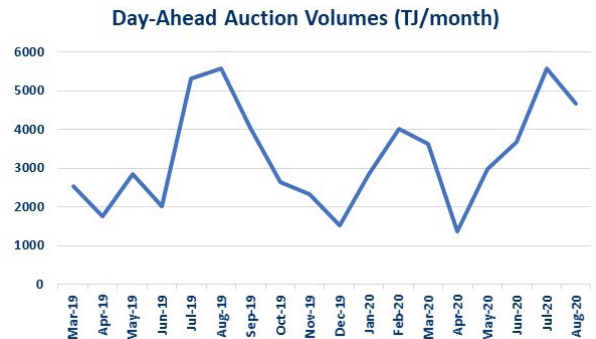
These capacity reforms have their origins in the pipeline service restructuring that occurred in the United States in the 1990s at the direction of the Federal Energy Regulatory Commission. The operational transfer of capacity that underpin the capacity trading reforms in Australia mirrors a concept developed for capacity trading in the United States.

Secondary capacity market activity

The day-ahead auction reserve price of \$0 was intended to act as an incentive for primary shippers to offer surplus capacity on the capacity trading platform. The sale of capacity on the capacity trading platform is an alternative to surplus primary capacity being relinquished and potentially sold through the day-ahead auction.

Activity in the secondary capacity market since its launch has not seen this “incentive” impact on trading.

Since March almost 60 PJ of capacity has been purchased in the day-ahead auction, however activity on the capacity trading platform is limited.



Source: AER website

Approximately 90% of all capacity auctioned has been priced at the \$0 reserve price. The Roma to Brisbane Pipeline has the lowest proportion of capacity priced at \$0, with approximately 50% priced at \$0.

Auction quantities have been highest on the Moomba to Sydney Pipeline (30% of total auction volumes) and the South West QLD Pipeline (25%).

The total auction quantity in 2019 on the Moomba to Sydney Pipeline and the Eastern Gas Pipeline, the pipelines supplying NSW, were about 10% of total New South Wales gas demand.

Features of a dynamic secondary capacity market

The development of the secondary pipeline capacity market could include changes to the design of the day-ahead auction and the capacity trading platform. Design changes that could be considered include:

- extending the duration of the day-ahead auction to a week or month ahead - shippers provide forecasts of the capacity that they required for each month prior to the start of the month;
- increase the priority of secondary capacity purchased through the day-ahead auction - it currently ranks below firm primary capacity;
- expand the term of the capacity trading platform products beyond one month.

Secondary capacity and the economics of gas pipelines

The commercial impact of secondary capacity markets on gas pipeline owners remains relatively low while the:

- auction remains a day-ahead auction; and
- priority of service for auction capacity ranks below a firm service.

Addressing the above characteristics of auction capacity could result in it becoming a more effective part of a shipper's capacity portfolio.

A more dynamic secondary capacity market could lead to the introduction of trading products that increase the contribution that secondary capacity makes to the management of gas market risk by businesses reliant on gas.

As secondary capacity helps develop more flexible capacity portfolios it may increase the significance of the free rider problem for future pipeline development.

Shippers could be deterred from contracting for primary capacity under long term gas transport agreements that underwrite greenfield pipeline developments given that their surplus capacity can be made available through the day-ahead auction to competitors.

Therefore a more dynamic secondary capacity market would lead to an increase in the uncertainty of the revenue outlook for pipeline investors.

If this discourages pipeline companies from investing in greenfield pipelines to connect new gas resources then it will increase the likelihood that the Commonwealth Government will need to implement the policy of stepping in "if the private sector doesn't invest".

If the volume of capacity traded through the day-ahead auction becomes material on a pipeline then the pricing of auction capacity will be more relevant to the revenue forecast that contribute to analysis such as the carrying value of the pipeline.

About the author

Rod Johannessen has over 20 years experience in the energy sector. Rod was the commercial and technical adviser to the Gas Market Reform Group for the development of the day-ahead auction and capacity trading platform.

Rod's corporate career included 10 years at APA where his responsibilities included the negotiation of gas transport agreements and gas market development. While at APA Rod established a pipeline capacity trading service and the In Pipe Trade service that now facilitates gas trading at the Wallumbilla Gas Supply Hub. The Operational Capacity Transfers that Rod developed for the APA capacity trading service is the contractual concept that underpins the day-ahead auction.

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