

AUSTRALIAN GAS DOMESTIC OUTLOOK CONFERENCE 2017

*Address by Australian Energy Market Commission Chairman Mr John Pierce
Australian Domestic Gas Outlook 2017, Tuesday 14 March 2017*

Introduction

In a room full of energy experts, I hardly need to point out that the energy sector is changing.

These changes are increasingly driven by new technologies, changes in consumer preferences, the growing interconnectedness between both energy markets within Australia but also between Australia and the rest of the world....and of course government policies.

The market frameworks supporting the energy sector were designed to, and do change continuously.

In responding to rule change proposals, the AEMC has a significant role in this evolution and has made 214 changes to market rules and completed 102 formal reviews and pieces of advice to the COAG Energy Council since the Commission was established.

With the recent events in the electricity sector, it should be clear to everyone that any discussion of system security in the electricity sector must however include some consideration of what's happening in Australia's gas markets.

So it won't surprise you when I say that I am here today to talk about how the two - gas and electricity markets - are inextricably linked, and what that means for their design and the ongoing reforms in those markets.

The relationship between the two can be summarised like this:

1. The east coast gas market has seen a huge increase in demand and the market is a lot more dynamic, fluid and potentially more volatile. As a result, the gas market is undergoing reforms so - at least at the wholesale level - there is more flexibly buy, sell and transport gas. This includes access to better information to inform their decisions and manage their risk.
2. These reforms should make it easier to move gas to wherever it needs to be within the interconnected network so it arrives at the place where it has the most value, thereby making a greater contribution to the value of Australia's economic output. One of the places gas may be highly valued is in the electricity generation sector as that sector itself goes through its own transformation.
3. Gas fired electricity generation has four features that make it particularly useful as part of the electricity supply mix and because of these, gas can play a crucial role in Australia's future electricity mix:
 - it is lower emissions than coal
 - it can balance intermittent renewable supply by varying its output
 - it can provide services to are necessary to operate the power system in a secure state
 - it can be a source of supply of hedge contracts into that market that help customers manage price risk

Gas market reforms can therefore contribute to our ability to achieve a reliable, affordable and lower emissions electricity.

The sheer availability of gas supply will obviously influence the success of gas market outcomes and, as the recent Gas Statement of Opportunities shows, and as you have been discussing today, that in itself may be a significant challenge.

However, the AEMC, as is our remit, has been focused for a number of years now on putting forward options to improve the functioning of our east coast markets so that, where gas is available, it can be traded more easily, and based on better information.

At this conference last year I spoke of fact that we only have a relatively small window of opportunity to adjust our domestic gas market arrangements and make lasting change.

Since then, Ministers of the COAG Energy Council have agreed to a suite of reforms that aim to make it easier to buy and sell gas and transport gas to where it is valued most.

The east coast gas market reform package focuses on three areas:

1. Pipeline access

Reforms to pipeline access arrangements that will mean participants that value the gas the most will be able to access the pipeline capacity they need through:

- day-ahead auction of contracted but un-nominated pipeline capacity;
- standardised provisions in capacity agreements which will make capacity more fungible;
- new capacity trading platforms to facilitate sales;
- the publication of information on secondary trades; and
- binding commercial arbitration framework on all pipelines if there are access disputes.

These improvements in transportation capacity trading arrangements will improve the liquidity of trading at hubs, the reliability of prices at those hubs, and in turn provide better signals for pipeline investment, and gas consumption and production.

2. Additional information to support the market

Secondly, additional information in the market will enable market participants to more better- informed decisions about trading, investing in, and using gas. New, more frequent and more accurate information will be reported on the gas bulletin board including:

- Annual information about reserves to give insight into where gas may be supplied from in the future
- information on capacity and gas flows around gas supply hubs
- Large users including LNG facilities will report nameplate capacity and daily consumption.

These are designed to instil a greater level of confidence in the reported information and address information gaps and asymmetries. There will be standardised presentation requirements making the new information easier to interpret and use, and this will also strengthen the compliance framework.

3. Consolidating the various market designs

The east coast gas market has three different “facilitated trading designs” – hubs, short term trading markets and the Victorian declared wholesale market - three different sets of rules, if you like. Consolidating the design of these markets so that common trading arrangements and price discovery mechanisms exist across the east coast, will reduce barriers to participation. Market

participants will only have to learn one set of rules and will be able to trade the same type of product regardless of geography.

To achieve this, a number of actions were agreed by the Council, including:

- Concentration of wholesale gas trading at two primary trading hubs - a Northern and Southern hub - that share common trading arrangements
- For the Northern Hub at Wallumbilla, optional hub services will help overcome the existing physical trading limitations of the hub – these will commence later this month.
- For the southern hub, there are opportunities to align the trading arrangements in Victoria more closely with arrangements across the east coast. We are currently working with industry to develop the detail around this.
- Finally, the Short Term Trading Markets in Sydney, Brisbane and Adelaide can then be simplified so they act as balancing mechanisms for the northern and southern hubs, supporting the development of meaningful liquidity at those hubs.

Reforms in these three areas will reinforce each other and will lead to improved price and investment signals, make it easier to buy and sell gas over different time periods, make trading between locations easier, give investors more of an ability to manage risk and ultimately deliver lower transaction costs that will flow through to consumers.

Many of you in this room will be working with Dr Vertigan and his gas market reform group in developing the detail and implementing these reforms.

At the AEMC, our focus has now turned to improving the trading arrangements in the Victorian declared wholesale market in consultation with Industry.

The outcomes we would like to see in the Victorian market are:

- Improving the ability and options available for participants to manage risk
- Improved trading across interconnected pipelines
- Promotion of upstream and downstream competition.
- Support for efficient investment

Our final draft report proposed a number of options aimed at achieving these outcomes and we appreciate the input we have received to date and we hope that many of you will continue to work with us to develop the most appropriate approach for consideration by the Victorian Government.

If both the east coast reforms and the Victorian-specific reforms are implemented, this will go a long way towards achieving the gas market vision that was set out by the COAG Energy Council.

The vision seeks to develop a market:

- that provides a “clean” reference price that can be used to manage risk,
- that gives efficient market signals for new investment,
- where trade is focused at a point that best serves the needs of participants; and
- where producers, consumers, and trading markets are connected in a way that allows flexible trade of gas.

In other words, the vision aims to free up the trading of gas – making it easier to buy and sell and transport gas to where consumers want it.

But that's probably enough about *what* is being done. There is also a question as to *why*.

A major objective, if not the over-riding objective, we are seeking to achieve is to be confident that gas is supplied to those consumers that value it most at the lowest possible price over time.

One such consumer or group of consumers are gas powered electricity generators.

And this is where gas reform becomes important for the electricity market.

I spoke earlier about the features of gas turbines that make them useful as part of the overall electricity supply mix:

- the ability to balance renewable output with changes in consumer demand;
- supporting the maintenance of a secure power system
- lowering emissions; and
- the ability to be a source of hedge contracts.

Gas generators are one option for the provision of hedge contracts within the electricity market which is a fundamental part of being able to manage price risk and is in fact a prerequisite for a competitive industry structure and delivering reliable supply of electricity over time.

The effective functioning of the hedge contract market is critical to maintaining reliable and secure supply to consumers, and in promoting competition in wholesale and retail markets.

Understandably, in recent times there has been a lot of focus and discussion about physical supply, reliability and security of physical assets, and the technical and engineering characteristics of different types of technologies.

Wherever those particular discussions may lead, it is absolutely essential that any decision criteria address the questions '*Will this add to or detract from the diversity, liquidity and duration of the hedge markets? Will it add to the competitive supply of hedges as well as produce energy?*'

Hedge contracts operate as a form of insurance against fluctuating spot prices and are also used to underwrite investment in new generation so there is enough capacity to meet demand. They are the critical fulcrum upon which these markets depend.

With a number of coal generators exiting the electricity market, the availability of hedge contracts appears to have decreased, resulting in consumers being more exposed to fluctuating spot market prices or receiving less reliable supply.

The decrease in the availability and competitiveness of contracts can really be used as the "canary in the coalmine" – excuse the pun - for future reliability and price rises in a region.

South Australia is an example of this: when Northern power station exited the market in May 2016 it didn't just leave a gap in electricity supply to be filled by other technologies. It left a gap in both the availability and competitiveness of South Australian hedge contracts, which was not filled.

While large gentailers have the ability to hedge risk across their businesses, smaller retailers and industrial customers were faced with a choice of locking in higher contract prices, or exposing themselves to fluctuating spot market prices. Many chose the latter.

Over the long term, a reduction in contract market liquidity leads to a decrease in the levels of retail competition and small consumers start to feel pain.

The other side of the hedge contract coin is that without customers signing hedge contracts with generators at prices that reflect the value of that power and the cost of supply, this ultimately leads to less than efficient investment, and less reliable supply.

Having seen the course of events in South Australia, I'd suggest that contract market duration and liquidity is something we should keep a close eye on in other regions, particularly Victoria.

To emphasise the point: you cannot and will not have a reliable physical supply of electricity, nor a workably competitive industry structure or competitive pricing unless investment in physical plant also means a potential new source of supply of hedge contracts within relevant regions.

Because of the ability of gas power generators to be a source of supply of these contracts, there is a key link between the reforms in the gas market which can support investment in gas fired power stations and in turn, support changes to the electricity market.

So to take stock: Gas generation – along with other technologies that can complement the intermittency of renewables - provides system security benefits, and can help customers manage their price risk by offering hedge contracts.

These characteristics all point towards gas playing a growing role in any future electricity mix. How big a role, is yet to be seen. Irrespective of the size of the bet you wish to place about what the future may bring, a more flexible wholesale mechanism for buying and selling gas is essential for both gas consumers and electricity retail consumers.

The east coast gas reforms that are being implemented in the gas markets will go a long way to improving those markets, but taking opportunities to improve trading arrangements in the Victorian market will be particularly important, especially given how the Victorian generation mix is set to change this month with the exit of Hazelwood power station.

Before I conclude, I want to talk briefly about another challenge facing the energy sector today, and that is in relation to investment confidence.

The overall aim of Australia's energy markets is to provide a reliable, secure energy supply at the best possible price for consumers. It must continue to deliver this while the sector transforms in response to the other objectives of governments and structural changes within the sectors themselves.

Significant investment is needed to deliver these outcomes and this involves co-ordinating a complex set of commercial and technological considerations that result in a series of investment and disinvestment decisions - that is:

moving people and capital from one place to another...

moving from one business model to another....

moving from one form of technology to another...

and effectively managing the risks along the way.

It is a truism that our future prosperity depends on how well that process is managed. History teaches us that the co-ordination of all these decisions, the management of all these risks, is what workably competitive markets do best, given a credible policy framework and effective governance.

A key element of any credible policy framework that investors need in order to continue to provide secure, reliable energy at the best price for customers, relates to the emissions reductions policy for the energy sector.

Many of you would be aware that the AEMC recently completed a report at the request of the COAG Energy Council that analysed three types of emissions reduction policy mechanisms, each designed to meet the electricity sector's share of Australia's Paris targets. The mechanisms we looked at were:

- **A market-based mechanism** which would involve the establishment of a declining Emissions Intensity Target and scheme for the electricity sector.
- **A technology subsidy** which would involve extending the existing LRET subsidy mechanism for new renewable generation capacity.
- **Government regulation** involving a staged approach to fossil-fuelled generator exit.

The absolute outcomes of the analysis are less important than the relative performance of each of the mechanisms. It wasn't a forecasting exercise, rather an exercise in explaining the characteristics of each of the three broad choices of mechanisms that could be used.

For example the analysis showed that an emissions intensity target is the most cost effective, scalable, and robust emissions reduction mechanism of the three. This was the case even when it was tested against a range of sensitivities – different views of the future - including high demand and low demand, high gas prices, low technology costs, and variations in the emissions reduction target.

The aim of this work however was not to recommend a particular mechanism, but to explore the impacts each would have on the energy market and consumers and to highlight the policy design characteristics that allow some mechanisms to better integrate with the energy sector than others.

A key characteristic that helps a mechanism achieve emissions reductions at the same time as supporting the delivery of secure, reliable energy at the best price for consumers is the ability to self-correct when future demand and technology costs inevitably turn out to be different from what is expected today. They also allow a mechanism to accommodate changes in the emissions reduction target over time.

Ultimately it is these characteristics that give investors and consumers' confidence to invest and change behaviour. If the mechanism that we use to achieve emissions reductions target is built around a particular forecast of say demand, technology, fuel prices or any other variables that affect outcomes and change overtime, the credibility of the policy mechanism depends on both the confidence the market has in government's forecasts and in those forecasts being pretty well correct.

It is the confidence of investors and consumers to invest and change their behaviour that will underpin the transformation of energy markets so they continue to provide a reliable, secure energy supply at the best possible price for consumers.

So, back to what this means for gas markets. Gas reforms are not only critical for large users of gas, they support a whole range of other important objectives. It will be very difficult to achieve an electricity sector that provides secure, reliable electricity at the best price for customers and in a way

that also reduces emissions over time, without access to gas, and without the means to easily buy and sell the available gas across the east coast.

In that regard, the Gas reforms in Victoria particularly will be vital not only for the large gas users there but also to support the maintenance of a secure and reliable electricity system.

The Commission is therefore very focused, as we recently outlined in our submission to the Finkel Review, on supporting the transformation of Australia's energy markets by providing flexible, resilient energy market frameworks that can adapt and change over time. It is this ability that underpins the confidence that investors can have in identifying investment opportunities and putting their money where their beliefs are. Without that, the rational response is to sit on their hands or to take a 'no regrets' position no matter how the future turns out.

The key challenges currently facing the energy sector are all interrelated – the sector often gets described as a tube of toothpaste being squeezed at one end and something comes out the other, or a bowl of spaghetti that is all joined up together. The success of any regulatory framework largely depends on how the people who operate the system and its many parts respond when something happens that had not been anticipated.

The Commission recognises this and the fact that any reforms we propose must balance and achieve multiple objectives and be designed in a way that is flexible and resilient and not dependant on any particular single view of what the future will look like.

I'll leave you with that thought as you seek to navigate through what promises to be a very interesting time in energy.

Ends.