

**Submission
No 35**

DOWNSTREAM GAS SUPPLY AND AVAILABILITY IN NSW

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21 June 2013

Rohan Tyler
State and Regional Development Committee
Parliament House
Macquarie Street
Sydney NSW 2000

Dear Mr Tyler,

Inquiry into downstream gas supply and availability in NSW

APA Group (APA) welcomes the opportunity to lodge the accompanying submission to the Inquiry into downstream gas supply and availability in New South Wales, initiated by the State and Regional Development Committee of the New South Wales Legislative Assembly.

APA is a major ASX-listed gas transportation business with interests in energy infrastructure across Australia, including over 14,000 km of natural gas transmission pipelines, gas storage facilities and a wind farm. APA is Australia's largest transporter of natural gas, delivering about half of Australia's annual gas use through its infrastructure. APA owns and operates a diverse portfolio of energy infrastructure assets across Australia, with a value of approximately \$12 billion. These assets also include direct and indirect investments NSW. As such, APA is very interested in the outcomes of the review, and looks forward to engaging with the Committee further as the Inquiry progresses.

Please do not hesitate to contact Stephen Livens, General Manager Government Affairs on [REDACTED] should you have any questions regarding APA's submission to the Inquiry.

Yours sincerely

[REDACTED]
Ross Gersbach
Chief Executive Strategy & Development



Inquiry into downstream gas supply and availability in NSW

1. Summary

APA Group (APA) welcomes the opportunity to lodge the following submission to the Inquiry into downstream gas supply and availability in New South Wales, initiated by the State and Regional Development Committee of the New South Wales Legislative Assembly.

Natural gas is a key fuel for the transition to a low emission economy. Gas is often considered to be the transition fuel from fossil to renewable fuels, given that gas is abundant and is also the cleanest of fossil fuels, being considerably cleaner than coal fired electricity. Switching to natural gas typically achieves the lowest unit cost of greenhouse emissions reduction.

A number of issues currently impact the uptake of gas in NSW related to market and policy dynamics. These are outlined below.

APA understands that shippers and end users are currently facing difficulties in securing longer term gas supply contracts at prices in line with historic trends. Gas supply contracts, where offered, also lack the flexibility often included in past contracts. APA supports initiatives to improve the transparency of the upstream sector such as the recent Commonwealth Government's announcement of a review by the Bureau of Resources and Energy Economics into the gas supply/demand balance.

In respect of infrastructure utilisation and investment, APA is committed to growing throughput on the gas infrastructure assets it owns and/or operates and would be pleased to work cooperatively with Government to identify suitable opportunities for gas network expansion in the future.

APA acknowledges that relative to the Victorian and South Australian situations, gas distribution coverage in NSW is limited. As such, APA sees many growth opportunities for greater natural gas supply to NSW regional centres, although a number of challenges are present. In particular, gas reticulation projects are currently threatened by falling average gas usage per household, due to a range of reasons including government policy initiatives that favour competitors and diminish gas competitiveness.

APA considers that the key policy issues that will assist gas network growth in NSW include: supportive policy in the gas hot water area; building codes and appliance policy acknowledging the growing role of gas; actively encouraging the use of gas appliances, instead of electrical equivalents; and the recognition of the importance of the early inclusion of gas in planning of estates. Judicious and commercially based funding to encourage and



support gas appliance uptake is also important for residential, commercial and industrial customers.

Other forms of competition do exist for gas network businesses and the best example is that gas distribution competes with grid electricity, particularly at an appliance level. Policy settings that favour electricity based products, for example, subsidies for electricity boosted solar hot water systems, mean that this competition is not conducted on a level playing field. APA considers that more effective levels of competition can be achieved if governments (state and federal) choose to encourage greater, but fairer competition, through more balanced policy settings. Fees levied by retailers, for example the gas 'connection fee', also discourage customers from connecting to the gas network.

In respect of measures that the NSW Government could consider adopting to aid gas network growth, there is potential to introduce an initiative similar to the Regional Development Victoria scheme, where through a competitive process involving participating gas network companies, funds could be made available to the 'winning tender', to extend the gas network. This measure, aimed at growing natural gas networks in regional areas, is commercially justified by the economic benefits that natural gas provision provides to those communities.

One of the principles of the scheme is that it is a competitive process that causes potential providers to submit the best economic solution that they can, in regard to regional natural gas network growth, thus ensuring for Government and consumers the best commercial and technical solution prevails.

2. Introduction

APA Group (APA) welcomes the opportunity to lodge the following submission to the Inquiry into downstream gas supply and availability in New South Wales, initiated by the State and Regional Development Committee of the New South Wales Legislative Assembly.

2.1. About APA Group

APA Group (APA) is Australia's largest natural gas infrastructure business, owning and/or operating \$12 billion of energy assets. Its gas transmission pipelines span every state and territory in mainland Australia, delivering approximately half of the nation's gas usage. Unique among its peers, APA has direct management and operational control over its assets and investments.

Relevant to NSW, APA owns and operates the Moomba to Sydney Pipeline (MSP), connecting the Sydney market with gas sourced from the Moomba basin and Queensland reserves. In addition, APA owns and operates the Interconnect pipeline, which connects the Victorian transmission system with the MSP, allowing for gas from the Otway and Gippsland Basins to be transported into NSW.



APA also owns and operates distribution assets in NSW, specifically the Tamworth network with approximately 2000 customers. Further, APA operates Envestra’s Albury and Country Energy networks and Allgas’ Tweed area network. These assets are shown in Figure 1 below.

Figure 1: APA gas investments in New South Wales



2.2. Benefits of Natural Gas

Natural gas is a key fuel for the transition to a low emission economy.

Whilst natural gas is a fossil fuel, it is more greenhouse efficient than coal or oil, with its emissions intensity being half that of black coal and a third that of brown coal. It is the cleanest burning of all fossil fuels. It is colourless, odourless, and non-toxic. Natural gas is currently the cleanest commercial form of reliable and scalable base-load generation.

Natural gas provides low emission energy for applications ranging across home appliances, vehicles, commercial buildings, through to large industrial processes.

Natural gas is a suitable fuel for a range of distributed generation technologies including conventional engines, fuels cells, micro-turbines, co-generation and tri-generation.

Gas is often considered to be the transition fuel from fossil to renewable fuels, given that gas is abundant and is also the cleanest of fossil fuels, being considerably cleaner than coal fired



electricity. Switching to natural gas typically achieves the lowest unit cost of greenhouse emissions reduction.

The use of natural gas also provides for a potential reduction in electricity network investment (and thus downward pressure on electricity tariffs for consumers), by using gas in greenfield and brownfield developments. This not only includes gas in conventional cooking, heating and hot water applications, but also used for innovative applications such as gas powered tri-generation and gas powered air conditioning.

There are many opportunities for natural gas to be used to reduce costs to electricity consumers, whilst at the same time reducing emissions. To achieve this, it is important to understand how gas fits into energy planning and policy development. These aspects are discussed in this submission.

2.3. Development of gas market over last decade

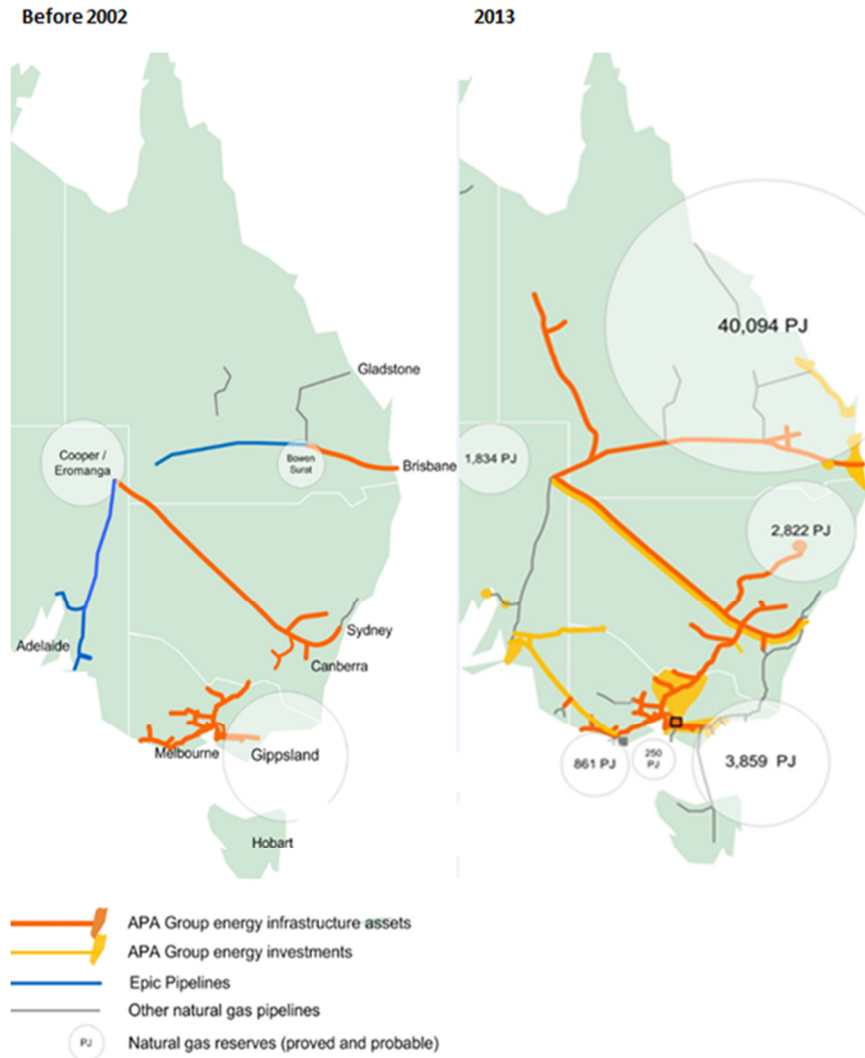
The Australian gas market has experienced significant development in the last decade. Starting from a fragmented market characterised by point-to-point (single basin to demand centre) gas supply, the south east Australian market is now highly interconnected with most major centres served by more than one pipeline, and gas able to be sourced from multiple basins to meet demand.

This development is shown in Figure 2 below, which compares the interconnectedness of the south east Australian gas market prior to 2002 to that now. Of particular note, the construction of the Eastern Gas Pipeline and the Interconnect Pipeline have directly linked the Melbourne and Sydney markets, the SEAGas Pipeline has linked the Melbourne and Adelaide markets, and the BassGas and South West Queensland pipelines have respectively linked the Tasmanian and the Queensland markets to the south eastern gas market.

This interconnectivity has created the potential for basin-on-basin competition, providing scope for shippers to diversify their gas portfolios as existing long term contracts expire. In addition, new major gas production regions have emerged through the development of coal seam methane reserves in Queensland, and potential for similar development in New South Wales, further enhancing diversity in the south eastern gas grid.



Figure 2 – Gas pipelines and reserves before 2002 compared with 2013



3. Responses to the Inquiry Terms of Reference

3.1. Scope of the Inquiry

While APA notes that the Inquiry is limited to downstream gas supply in NSW, APA considers that it is critical that the Committee investigate and understand the current dynamics of the upstream sector in conducting its Inquiry.

Without consideration of the upstream sector and how it is impacting the market as a whole, it will be very difficult for the Committee to distinguish between issues that may be related to the upstream sector, and those that may be driven by downstream issues. The risk is that



issues that are identified downstream are not linked to their upstream drivers, and ultimately, policy interventions to address those issues fail.

APA therefore urges the Committee to have regard to upstream issues as part of its consideration of the downstream gas sector. These are raised below where they are relevant to the terms of reference.

3.2. Adequacy of transmission and distribution investment and supply challenges

a) the adequacy of transmission pipeline systems and distribution networks for future downstream gas needs and supply challenges

APA notes that there is currently considerable debate about the medium term outlook for eastern Australian gas supply and demand, and therefore gas pricing. This is as a result of the very large changes to the gas market structure currently occurring. These changes are being driven by the development of LNG export facilities in the east coast of Australia, with reserves previously earmarked for NSW being directed to the more lucrative gas contracts being offered by LNG proponents.

As a result, APA understands that shippers and end users are currently facing difficulties in securing longer term gas supply contracts at prices in line with historic trends. Gas supply contracts, where offered, also lack the flexibility often included in past contracts.

APA considers that there is currently insufficient publicly available information on the reserve position of gas producers to establish a true picture of the medium term supply/demand balance. Hence, APA supports the recent Commonwealth Government's announcement of a review by the Bureau of Resources and Energy Economics into the gas supply/demand balance.

From a gas transmission pipeline perspective, New South Wales currently imports close to 95% of its gas demand. In addition, APA has approved expenditure to increase capacity on the northern section of the Victorian Transmission System to accommodate the expected increased transportation requirements from Victoria into NSW. As such, we do not see any transmission constraints for flowing gas into NSW.

3.3. Barriers to expansion of downstream gas supply

b) barriers to the expansion of downstream gas supply and distribution networks

The gas distribution networks owned and/or operated by APA in NSW are required to comply with the Natural Gas Law (NGL) and associated Rules, and fall under the jurisdiction of the Australian Energy Regulator (AER). All new connections and network expansions must pass the regulatory economic investment test to be rolled into the regulated asset base. This is a



function of the cost of the connection or expansion, and the new demand associated with the connection or expansion.

Capital Cost

Capital costs cover activities including trenching, materials purchase, pipe installation, reinstatement, and connection at the consumer's premises. These are subject to a range of technical and operational requirements.

The regulatory regime, and APA's arrangements with the asset owners of the networks it operates, creates strong incentives to minimise capital costs. Nonetheless, APA is subject to the many cost pressures present in the broader economy. These include competition for labour with large mining and energy projects, escalating cost of materials and compliance with regulatory or statutory changes.

Demand

The future revenue forecast for a given connection or expansion (and therefore whether will pass the economic investment test) depends upon a number of factors, including the gas consumption per connection and penetration (i.e. the percentage of customers within a network area that choose to connect).

Whilst connection to the electricity network for customers is effectively compulsory, the same does not apply for gas - potential gas customers can choose whether or not they take gas. Gas is therefore a discretionary fuel.

Average consumption per household has been falling over the longer term, for reasons including (i) more efficient gas appliances, (ii) improved building standards, (iii) competition from other appliances, (iv) disinterest by retailers who sell energy and are indifferent to gas versus electricity, and (v) the impact of government policy.

APA supports policies that are largely for the betterment of the broader community, including more efficient gas appliances and improved building standards as they benefit the community through lower costs. However, some government policy initiatives may distort markets, leading to perverse outcomes that undermine government intent. The recent government support for solar and heat pump hot water appliances, through both state and federal government rebates and/or Small-scale Technology Certificates (STCs), provides an example.

The availability of government rebates and STCs for solar and heat pump units has lowered the cost of these appliances for purchasing customers compared to the equivalent gas appliance. This has led customers to prefer solar and heat pump hot water appliances, resulting in a reduction in average household gas consumption. The greenhouse outcome, however, can be poorer than if the customer chose an equivalent gas appliance.

When these demand trends are considered in respect of a new connection or expansion, the lower demand forecast means that it is harder to pass the economic assessment required



under the NGL for new connections and expansions, and these connections and expansions do not ultimately proceed.

APA considers that this outcome is inconsistent with the energy market objectives agreed to by the Council of Australian Governments in 2004 (and further endorsed in 2006, 2009 and 2011) which included the following objective:

to further increase the penetration of natural gas, to lower energy costs and improve energy services, particularly to regional Australia, and reduce greenhouse emissions¹

Given that switching to natural gas typically provides the lowest unit cost reduction in greenhouse gas emissions, the policy of providing rebates and STCs to solar and heat pump appliances do not secure greenhouse gas abatement at lowest cost.

For those consumers who installed a solar or heat pump unit, there was a direct financial benefit. However, given that the payment of rebates and STCs to these consumers was at least partly funded by the broader community, this outcome does not appear to be consistent with the long term interests of consumers.

Another policy concern for APA is the recent announcement by the NSW government not to pursue the development and introduction of policy in regard to potential electric hot water system restrictions in existing homes. The key issue regarding this change is that relatively quick policy changes that contrast significantly with national and state government policy trends of the previous 5-10 years, significantly impact business confidence and investment decisions for businesses like APA. These types of changes also potentially confuse consumers, tradespeople and appliance manufacturers.

The impact of this policy change, in regard to existing home electric hot water policy, will further undermine gas demand growth. Alongside to the impact of the solar/heat pump rebate and STC policy, this will directly impact APA's ability to economically grow its NSW gas network.

Cost of Compliance

The actual cost of compliance includes staff and resources employed to manage and oversee compliance with both National and State-based regulatory obligations. These costs, once approved by the AER, are reflected in the tariffs paid by consumers, thus potentially making consumer tariffs higher than they would otherwise be, in the absence of the cost imposts of regulation. They also impose an additional burden on gas when competing with electricity, as discussed above.

Retailer Connection Charges

Energy retailers charge a fee of around \$200 for connection to the gas networks owned and/or operated by APA in NSW.

¹ Australian Energy Market Agreement 2004, clause 2.1(b)(v) (as amended in 2011)



APA supports the right of the energy retailers to recover their costs, however APA is concerned that this fee is a disincentive to connection, placing further burden on the economic case for connections and expansions. Further information on the basis of this fee would assist in understanding its drivers, particularly as it appears to relate to a relatively minor business-to-business transaction.

Areas of gas policy development that could assist growth in the natural gas networks in NSW

The following summarises policy areas which would positively support the growth of gas networks in NSW.

Hot Water Policy – APA endorses the national trend towards minimising the use of conventional electric hot water systems. Switching to gas minimises greenhouse gas emissions at minimal cost. Securing hot water demand in the home is critical to expanding the gas network. This has the further benefit of making gas available to businesses for other applications.

Building standards / building codes and appliance efficiency – APA encourages the use of gas in targeting energy efficiency and emission reduction in residential, commercial and industrial buildings.

Opportunities for natural gas technologies to displace electric load – APA encourages greater use of gas technologies like gas powered air conditioning (residential and commercial), fuel cells, tri- and co-generation over electric equivalents.

Planning for Development – By being involved early in greenfield and brownfield developments, opportunity exists for coordinated approaches between utilities, to potentially achieve a reduction of cost of installation.

Further, the early involvement of gas distribution businesses ensures that gas is given the opportunity to assess the economics of expansion and work to improve those through identifying opportunities to lower costs and market gas to increase gas demand.

Clean Energy Funding – APA endorses an approach that by using an appropriate economic test, funding can be provided for gas growth opportunities that provide measurable community benefit through lower costs and lower emissions. Examples could include the identification/application of funding to achieve gas for electric replacements e.g. gas boilers for electric boilers.

As an example of an energy funding opportunity, the Energy Networks Association (ENA) proposed recently an approach to providing gas incentives that effectively assist households to meet the cost of the replacement of conventional electric resistance hot water systems. Specifically, the approach proposes that households would receive a proportionate subsidy paid directly to the household, in proportion to the greenhouse efficiency forecast.



3.4. Competition in the downstream gas market

c) the effectiveness of competition in the downstream gas market and consumer pricing implications

Gas distribution businesses face competition from other sources of energy (for example electricity and LPG), particularly at an appliance level. Government policy can influence customers' decisions at purchase, and can mean that gas appliances are not competing on a level playing field.

For example, if government policy promotes incentives for the installation of an appliance, and the same incentives are not provided for the equivalent gas appliance, then the consumer will logically consider the choice of that appliance over the gas equivalent. A relevant example is the rebates provided for solar and heat pumps as discussed above.

The very favourable subsidies available from the Federal government STC incentives on heat pump hot water units, can mean that a household which would otherwise install a gas hot water unit will instead install a solar or heat pump unit. Were the customers to install a gas hot water unit, they would very likely be able to connect to the natural gas network free of charge because their demand would be sufficient to support the connection costs. In contrast, without gas demand driven by the gas hot water unit, the customer is likely to have to pay a contribution in order to connect to the gas network for their other gas appliances (as required by the economic investment test under the NGL). The net result is often that the customer chooses not to connect to the gas network, and instead opts for electric appliances for cooking and heating, placing further load on the electricity network, and leading in many cases to higher greenhouse gas emissions than the alternative.

With respect to the gas connections or reticulation area, competition currently exists where authorised installers can undertake the installation of the consumer service from the property boundary to the consumer billing meter position, and in property development sites where the reticulation (embedded network) is undertaken for the development site. Whilst this work is undertaken on the customer or developer owned property, it is regarded as part of the gas work that the authorised Network Operator is ultimately responsible for under the *NSW Gas Supply (Safety and Network Management) Regulation 2008*.

Whilst this area of competition exists with respect to the consumer connection or embedded networks, APA does not consider that the extension of such competition to the gas main and utility service (gas main to property boundary) would serve in the best interest of consumers or the community. Extension of competition into the reticulation area would require multiple providers to be granted a Reticulator's Authorisation for the same Network Distribution area and would create issues such as the following:

- Confusion for consumers on how to obtain a gas connection;
- Unclear responsibility for maintenance and operations of the reticulation;
- Risks associated with reporting of gas leaks and emergency repairs on the reticulation;



- Risks associated with interconnection of different systems; and
- Risks associated with Network Operators working on incorrectly identified assets.

In summary therefore, from a natural gas network perspective, competition does exist in NSW in the gas network market, but due to policy construction, the unintended consequence of the STC incentive policy is that the gas network business is disadvantaged and the gas network finds it more difficult to grow.

3.5. Effectiveness of existing protections for consumers

d) the effectiveness of existing protections for consumers and measures to facilitate access to gas connection and supply

From APA's perspective, there are no material issues in NSW in regard to consumer protection matters. APA has a non-exclusive and non-discriminatory connections policy which has served customers well over many years.

In terms of general consumer protections, it is noted that with the imminent introduction in NSW of the National Energy Customer Framework (NECF), gas and electricity customers will have even greater protections as well as receiving increased retailer service levels and choice.

3.6. Measures to encourage extension of existing distribution networks

e) possible measures to encourage gas network operators to extend existing distribution networks, including financial incentives of license obligations, particularly in regional centres that do not have access to reticulated gas.

Gas network growth in regional areas is typically difficult because of the distances from established gas infrastructure. However even when gas infrastructure is present, network expansion can remain difficult. Factors such as absence of industry, larger properties, and competition from fuels such as wood (which can be cheap to access in regional areas) contribute to this difficulty.

Schemes designed to grow gas networks in regional areas do currently exist in Australia.

As an example, over the past decade, the Victorian Government has been actively encouraging the extension of gas reticulation to regional Victorian towns, through its \$100 million "Energy for the Regions Program". As far back as 2003, the Victorian government funded the Natural Gas Extension Program, which had \$70 million of funds available, strongly suggesting that the concept continues to prove its worth to government.

This infrastructure initiative is obviously a substantial commitment by the Victorian Government. The scheme directly addresses some of the issues raised earlier in this paper,



particularly in regard to the challenging economics of growing a gas network, especially in regional areas.

The initiative reflects the Victorian Government's view, that access to natural gas is crucial to sustainable economic growth for regional communities. The scheme is ultimately funded by the Government's Regional Growth Fund, which has a total budget of \$1.0 billion.

In terms of process, Regional Development Victoria (RDV) was assigned the role of executing the program. It began this task by identifying 12 "priority towns" and from there invited submissions from potential providers to reticulate these towns with natural gas.

As an outcome to date of the current program, the scheme has seen the RDV enter into agreements for the supply and reticulation of natural gas to a number of Victorian towns. For example, APA understands that Envestra is currently involved in discussions with RDV, in regard to the reticulation of three towns, with negotiations proceeding encouragingly.

Significantly, as a result of the 2003 program, Envestra was able to extend its network to eight towns in regional Victoria, including Bairnsdale, Paynesville, Balnarring, Balnarring Beach, Merricks Beach, Somers, St Andrews Beach and Hurstbridge.

Crucially, we understand from our discussions with Envestra, that without the support of the program, these towns would not have been connected.

The above program is commended to the NSW Government for consideration.