

**Submission  
No 27**

**INQUIRY INTO THE SUPPLY AND COST OF GAS AND  
LIQUID FUELS IN NEW SOUTH WALES**

**Organisation:** Energy Supply Association of Australia

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The Director  
Select Committee on the supply and cost of gas and liquid fuels in New South Wales  
Parliament House  
Macquarie St  
Sydney NSW 2000

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### **Inquiry into the supply and cost of gas and liquid fuels in New South Wales**

The Energy Supply Association of Australia (esaa) welcomes the opportunity to make a submission to the News South Wales Legislative Council's (Gas and liquid fuels supply Committee) inquiry into the supply and cost of gas and liquid fuels in NSW.

The esaa is the peak industry body for the stationary energy sector in Australia and represents the policy positions of the Chief Executives of 34 electricity and downstream natural gas businesses. These businesses own and operate some \$120 billion in assets, employ more than 51,000 people and contribute \$16.5 billion directly to the nation's Gross Domestic Product.

The east coast gas market is undergoing an unprecedented level of change. Production costs are rising, political uncertainty is hampering onshore gas development in a number of regions and the liquefied natural gas (LNG) export industry is driving a step change in demand. It is unclear how these factors will ultimately influence the dynamics of the east coast gas market and as such, there is currently a renewed focus on examining the adequacy of existing market arrangements. While the Association agrees there is merit in facilitating continued market development, for NSW, the key to alleviating any supply/pricing pressures will be the development of the state's abundant coal seam gas (CSG) reserves and resources.

It is anticipated there is sufficient gas to support domestic and export demand for at least the next 20 years based on current reserves and resource estimates, but this assessment is predicated on continued resource development, including in NSW.<sup>1</sup> Having historically imported around 95 per cent of its natural gas requirements from neighbouring states, the absence of developed CSG reserves leaves NSW acutely exposed to any tightening of the supply/demand balance over the short to medium term.

To date, the development of CSG reserves and resources in NSW has been constrained by persistent political intervention and overly restrictive planning laws and regulatory frameworks. Most recently, the introduction of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive*

*Industries) Amendment (Coal Seam Gas Exclusion Zones) 2013* and the Commonwealth Government's "water trigger" amendments to the *Environment Protection and Biodiversity Conservation Act 1999* caused a number of CSG operators to suspend their CSG activities indefinitely.

The NSW Government's recent declaration that it is committed to growing local gas supply is a welcome development in this regard. But achieving this will require a better balance of the social, environmental and economic costs/benefits of resource development than has previously been achieved. This includes giving adequate consideration to the concerns of local communities, as well as the role that natural gas plays in the Australian economy, both in terms of economic/employment growth and as an essential service.

Such an approach will allow the east coast gas market to efficiently adjust to the new paradigm. It will also ensure NSW does not forgo the significant employment and economic development opportunities brought about by the reasonable development of local CSG reserves and resources.

The esaa's response to the inquiry Terms of Reference is provided at Attachment 1. Since the eastern states are linked by way of interconnected electricity and gas networks, the Association's comments should be viewed in the context of the broader east coast market.

Any questions about our submission should be addressed to Shaun Cole

Yours sincerely

**Matthew Warren**  
Chief Executive Officer

**Factors affecting the supply, demand and cost of natural gas and liquid fuels in New South Wales (Part a.)**

Australia is naturally endowed with significant reserves and resources and has historically benefited from the provision of secure, reliable and reasonably priced gas supply – relative to global standards – for some time. While gas is poised to continue playing an important role in the future of Australia’s energy supply industry, the market is in a state of transition. Production costs are rising, political uncertainty is hampering onshore gas development in a number of regions and most notably, new demand from the LNG export industry is changing market dynamics.

As conventional gas resources diminish, the LNG export industry will be a key driver of continued resource development in Australia, providing a level of demand and capital that is sufficient to underpin the development of significant and higher-priced unconventional gas resources. Despite the obvious benefits this creates, linkages to LNG export markets do change the competitive environment relative to business as usual, exposing the domestic market to the influence of world prices and a competing source of demand that will far exceed domestic demand.

To provide an idea of the size of the export volumes that are anticipated, in 2016 LNG exports from the east coast are projected to exceed 1,200 PJ.<sup>ii</sup> This compares with total east coast domestic demand of around 570 PJ.<sup>iii</sup>

While it is anticipated there is sufficient gas to support projected domestic and export demand for at least the next 20 years based on current reserves and resource estimates, this assessment is predicated on continued development of gas resources, including in NSW.<sup>iv</sup> Having historically imported around 95 per cent of its natural gas requirements from neighbouring states, the absence of developed CSG reserves leaves NSW acutely exposed to any tightening of the supply/demand balance over the short to medium term.

With the expiration of long-term NSW gas supply contracts over the next 3-4 years, the same period during which LNG exports are set to ramp up, NSW customers will be reliant on their suppliers being able to continue to access gas from resources developed in other states. As identified by the Grattan Institute, continued uncertainty over the development of CSG could potentially expose NSW consumers to supply shortfalls during periods of peak gas demand.<sup>v</sup>

Gas contracted for import into NSW is also likely to be priced at a premium to indigenous CSG, given high production and transportation costs. Relative to a scenario where CSG production expands steadily, recent estimates suggest wholesale gas prices in NSW, Victoria, South Australia and Tasmania will be 25-32 per cent higher by 2030 should NSW CSG development be materially constrained.<sup>vi</sup>

To date, resource development in NSW continues to be stymied by political uncertainty and overly restrictive planning laws and regulatory frameworks. Victoria has also maintained its restrictions on exploration for CSG. As discussed in Part e., overcoming these issues will require governments at all levels to establish regulatory

frameworks and planning laws that appropriately balance the social, environmental and economic costs/benefits of resource development.

### **The impact of tight supply and increasing cost of natural gas and liquid fuels on New South Wales consumers, including manufacturing, agriculture, energy production, small business, public services and household consumers (Part b.)**

Tight supply and rising wholesale gas prices are expected to have an impact on domestic gas demand on the east coast. According to the Australian Energy Market Operator's (AEMO) latest forecasts, total demand will decline at a rate of 5.2 per cent per annum over the 2014-19 period.<sup>vii</sup> This low growth rate is largely attributable to a decline in demand for gas-fired electricity generation, which is expected to decrease by 16.8 per cent annually over the period.<sup>viii</sup> In comparison, demand for the large industrial market segment is forecast to decline at an average annual rate of 3.4 per cent, while the mass market (residential and commercial) is expected to grow by 1.1 per cent.<sup>ix</sup>

This profile of rising costs coupled with a potential reduction in domestic demand over the medium term may pose some challenges from an asset utilisation perspective, the ramifications of which would extend to all users. To the extent there is a decline in mass market consumption, a reduction in distribution network throughput could lead to higher network charges as network businesses seek to recover costs from fewer units, thus driving prices higher and gas usage lower.

NSW is particularly exposed in this respect, given the low penetration of natural gas at the mass market level relative to Victoria and the Australian Capital Territory. While households in NSW connect to electricity as a matter of course, only around 62 per cent of NSW households have gas infrastructure available and of those, some 70 per cent are connected.<sup>x</sup>

### **The commercial conduct of gas producers and the operation of the international and domestic markets (Part c.)**

For decades, the only market for gas produced in eastern Australia has been the domestic one. This has resulted in long-term contracts at prices significantly below world prices. These long-term contracts ensured large projects in places like the Cooper Basin and Bass Strait could be developed, allowing Australian customers to enjoy some of the lowest gas prices in the world. The opening of the east coast to export markets is likely to change this competitive environment for two main reasons:

- Opening the east coast to export markets also opens it to world prices, meaning domestic gas prices have the potential to rise to international levels over time.
- Contract terms (including length of coverage) may vary from previous market norms as the competition for supply increases and more flexible arrangements are sought.

It is currently unclear how these factors may impact upon the dynamics of the east coast gas market. But the ability of market participants to efficiently respond to these changes will be dependent upon access to, and flexibility of, gas supply agreements

and wholesale trading market settings. Buyers may also need to be flexible in their approach to managing risk, which in the absence of deep and liquid secondary markets will likely be managed through contracting strategies. Recent investments by some energy companies and large energy users may also point to the benefits of vertical integration in this regard.

#### **The adequacy of Commonwealth and State cooperation in gas market regulation (Part d.)**

The east coast gas market has undergone significant transformation over the past 20 years. Coordination between Commonwealth and state/territory governments has facilitated the development of an interconnected pipeline system connecting regional demand centres with multiple supply points; competition in retail markets has emerged; and facilitated trading markets have been developed to provide a transparent and market based mechanism for managing daily imbalances.

Despite this progress, the reform process remains ongoing. As discussed in response to Part e., there is evidence of a desire for more transparent and short-term price signals across the supply chain and more diverse mechanisms for managing pricing risks (i.e. forward trading).

A range of ongoing initiatives have been established with the aim of enhancing elements of the east coast gas market. While it is important these processes are progressed and completed, a more strategic approach to reform that considers the broader east coast gas market and clarifies the overarching reform objectives/principles is needed. Given the cross jurisdictional nature of the interconnected gas market, the COAG Energy Council is the appropriate body through which to oversee the implementation of existing commitments and coordinate this strategic response. The COAG Energy Council's recently released Vision for the Gas Market is a positive step in this regard.

#### **The possible regulatory responses to protect New South Wales gas consumers from adverse market fluctuations and failures (Part e.)**

Non-market interventions such as domestic reservation policy are not warranted. Building confidence in, and oversight of, the market is a more appropriate response to the challenge, particularly in the current environment where businesses across the supply chain are trying to adjust to changing market dynamics. Policy certainty with respect to upstream resource development and the creation of a broader gas market reform strategy to drive competition and efficiencies across the supply chain is needed.

##### *Delivering policy certainty and removing barriers to supply*

The development of unconventional gas reserves and resources has been constrained on the east coast to date, principally as a result of political uncertainty and overly restrictive planning laws and regulatory frameworks. Such an environment has severe implications for the timeliness and diversity of supply, as it creates barriers and risks to investment at a time when continued resource development is essential. New South Wales is at the forefront of this issue and serves as an example

of the problems that could emerge more broadly unless appropriate policy settings are in place for the exploration, production and supply of gas.

At its core, Australia's environmental planning and regulatory framework for resource development has numerous overlapping, excessive and inconsistent requirements that cause unnecessary project delays and costs. According to research conducted by the Australian Petroleum Production and Exploration Association, duplicative state and federal regulations may be holding back projects worth around \$200 billion without any environmental benefit.<sup>xi</sup> The Productivity Commission reiterated these concerns, highlighting the overlap and duplication of similar regulatory processes as "one obvious source of unnecessary burden for proponents of major projects".<sup>xii</sup>

Despite work under way at a national level to reduce regulatory burden (e.g. implementing a 'one-stop-shop' for environmental approvals), for a number of regions it is difficult to see real progress. The NSW Government's recent declaration that it is committed to growing indigenous gas supply is a welcome development in this regard. But overcoming the current suite of issues will require governments at all levels to establish environmental and planning processes that appropriately balance the social, environmental and economic costs/benefits of resource development and avoid unnecessary duplication.

Regulations should be based on sound scientific principles and assessment, maintain high environmental safety standards and provide regulatory certainty and consistency across all jurisdictions. Above all, they should provide a stable and predictable foundation for the development of gas resources.

Achieving this will allow the east coast gas market to efficiently adjust to the new paradigm. It will also ensure NSW does not forgo the significant employment and economic development opportunities brought about by the reasonable development of indigenous CSG reserves and resources.

#### *Retention lease management*

Resource development is a high risk and capital intensive activity and there are multiple commercial considerations that govern the overall timing and scale of project development. As such, it is important to provide resource businesses with the scope to deliver efficient investment across their broader portfolio. But given the need to promote continued resource development, the Association is supportive of actions to provide greater clarity and transparency around the application of retention leases. This includes exploring whether there are other appropriate avenues to promote use-it-or-lose-it contestability such as auctioning.

#### *Encouraging market development*

The ability of the east coast gas market to efficiently respond to changing market dynamics over the long term will be dependent upon the access to, and flexibility of, gas supply agreements and wholesale trading market arrangements and settings. In light of this, there is currently a heightened government focus on the east coast gas market, particularly with respect to enhancing transparency through an increasing role for markets.

Information transparency and liquidity are key features of well-developed gas markets globally. Transparency improves efficiency and security of supply as market participants become increasingly aware of the value of gas at different locations and at different times, while liquidity facilitates competition and enhances efficiency by enabling markets to react to an increase in transparency.

Exploring how best to enhance these market attributes in a manner that avoids market distortions and facilitates industry-led market development is critical. As noted above, the COAG Energy Council is the appropriate body through which to oversee the implementation of any strategic reforms. But the NSW Government has a key role to play in coordinating with the Commonwealth and other state/territory governments on these issues.

#### *Addressing barriers to network expansion*

The penetration of natural gas at the mass market level remains low in NSW relative to Victoria and the Australian Capital Territory. While households in NSW connect to electricity as a matter of course, only around 62 per cent of NSW households have gas infrastructure available and of those, some 70 per cent are connected.<sup>xiii</sup>

To increase penetration and drive further cost efficiencies through improved utilisation of network infrastructure, there are a range of issues that should be considered. On the supply side, addressing red tape around council requirements for new gas connections and harmonising technical and safety practices across states could assist in minimising costs for distribution network service providers.

On the demand side, the provision of subsidies to solar and heat pump hot water technology as part of the Small-Scale Renewable Energy Scheme (SRES) diminishes the economics of natural gas hot water relative to those alternate technologies. Addressing this inequality would likely increase the uptake of gas hot water, which in the absence of any subsidies has been identified as one of the least-cost options for delivering greenhouse gas abatement.

#### *Driving retail competition*

New South Wales has undertaken significant reform to improve the efficiency and competitiveness of the retail gas market. These reforms include the introduction of retail competition for all gas customers and the application of a transparent and light-handed consultative process to set the standing contract price path for small-use customers. As a result, gas consumers in the Greater Sydney area have access to some 21 different offers from four different retailers.<sup>xiv</sup> Further, more than 75 per cent of small customers are now on market contracts.<sup>xv</sup>

Despite these commendable achievements, the process of reform is not complete. While competition is currently delivering discounts and other benefits to small consumers, retail price regulation remains the key outstanding reform preventing a genuinely competitive retail gas market from flourishing in NSW.

As part of its 2013-16 determination, the Independent Pricing and Regulatory Tribunal (IPART) suggested retail competition had developed to the point where price regulation may no longer be necessary, a view consistent with the 2014

determination. The Australian Energy Market Commission (AEMC) also presented a similar view in its Review of Competition in the Retail Electricity and Natural Gas Markets in NSW, suggesting the removal of retail price regulation for all consumers would lead to more innovation, increased product choice and competitive pricing.

The esaa agrees with IPART's and the AEMC's assessment that retail competition in NSW is effective and considers the most appropriate way to continue to drive competition is to remove gas retail price regulation.

### **The impact of closures of liquid fuel refineries and storages in New South Wales (Part f.)**

It is important to consider opportunities to indirectly improve liquid fuel security through diversification of fuel usage, particularly in the transportation sector. Greater uptake of electric vehicles (EVs) and natural gas vehicles (NGVs) provides one such opportunity, the benefits of which would extend across multiple sectors.

Liquid fuels have been used for the past century to power most cars and other transport vehicles. As a result, around 75 per cent of Australia's fuel usage is now attributable to the transportation sector. While the heavy reliance on liquid fuelled internal combustion engines is likely to continue in the short term, significant advances in technology have created a new generation of EVs and NGVs that have the potential to surpass traditional petrol and diesel engine vehicles on performance, safety, design and running costs.

From an energy security standpoint, a shift to vehicles fuelled by domestic fuel sources such as electricity or natural gas would reduce reliance on imported fuels. EVs in particular are not reliant on a specific source of primary energy, meaning any technology that can generate electricity can be used to power an EV. Further, it reduces the risk of price vulnerability due to oil supply constraints.

Encouraging continued exploration, particularly for unconventional resources, is also a factor that should be considered. While much of the focus is currently on developing gas rich resources, continued exploration and development brings with it new opportunities for developing liquids production capacity domestically.

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<sup>i</sup> Australian Energy Market Operator, *Gas Statement of Opportunities 2013*, 29 November 2013.

<sup>ii</sup> Australian Energy Market Operator, *National Gas Forecasting Report*, December 2014.

<sup>iii</sup> Ibid.

<sup>iv</sup> Australian Energy Market Operator, *Gas Statement of Opportunities 2013*, 29 November 2013.

<sup>v</sup> Grattan Institute, *Australia's energy challenge*, June 2013.

<sup>vi</sup> ACIL ALLEN CONSULTING – Report to the Australian Petroleum Production and Exploration Association, *Potential Economic Significance of NSW Coal Seam Gas*, May 2013.

<sup>vii</sup> Australian Energy Market Operator, *National Gas Forecasting Report*, December 2014.

<sup>viii</sup> Ibid.

<sup>ix</sup> Ibid.

<sup>x</sup> Australian Energy Market Commission, *Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales – Draft Report*, May 2013.

<sup>xi</sup> The Australian Petroleum Production and Exploration Association, *Cutting green tape: streamlining major oil and gas project environmental approvals processes in Australia*, February 2013.

<sup>xii</sup> The Productivity Commission, *Major Project Development Assessment Processes – Research Report*, November 2013.

<sup>xiii</sup> Australian Energy Market Commission, *Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales – Draft Report*, May 2013.

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<sup>xiv</sup> Australian Energy Market Commission, *Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales – Final report*, October 2013

<sup>xv</sup> *Ibid.*