

Select Committee on the Supply and Cost of Gas and Liquid  
Fuels in New South Wales

# **Supply and cost of gas and liquid fuels in New South Wales**

Ordered to be printed 25 February 2015 according to Standing  
Order 231

New South Wales Parliamentary Library cataloguing-in-publication data:

**New South Wales. Parliament. Legislative Council. Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales**

Supply and cost of gas and liquid fuels in New South Wales / Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales [Sydney, N.S.W.] : The Committee, 2015. – 109 pages ; 30 cm. (Report)

Chair: The Hon. Robert Borsak MLC.

“February 2015”

ISBN 9781920788056

1. Energy consumption—New South Wales.
2. Liquid fuels—New South Wales—Costs.
3. Liquid fuels—New South Wales—Storage.
4. Natural gas—New South Wales—Costs.
5. Gas industry—Law and legislation—New South Wales.

I. Title

II. Borsak, Robert.

III. Series: New South Wales. Parliament. Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales. Report ; 1.

333.79 (DDC22)

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## Terms of reference

1. That a select committee be established to inquire into and report on gas and liquid fuels supply, cost and availability in New South Wales, and in particular:
  - (a) the factors affecting the supply, demand and cost of natural gas and liquid fuels in New South Wales;
  - (b) 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;
  - (c) the commercial conduct of gas producers and the operation of the international and domestic gas markets;
  - (d) the adequacy of Commonwealth and State cooperation in gas market regulation;
  - (e) the possible regulatory responses to protect New South Wales gas consumers from adverse market fluctuations and failures;
  - (f) the impact of closures of liquid fuel refineries and storages in New South Wales; and
  - (g) any other related matter.
2. That the committee report by 25 February 2015.

The terms of reference were established by the House in a resolution passed 6 November 2014, Minutes No 15, Item 7 page 243.

## Committee membership

<b>The Hon Robert Borsak MLC</b>	Shooters and Fishers Party	<i>Chair</i>
<b>Mr Jeremy Buckingham MLC</b>	The Greens	<i>Deputy Chair</i>
<b>The Hon Niall Blair MLC</b>	The Nationals	
<b>Mr Scot MacDonald MLC</b>	Liberal Party	
<b>The Hon Dr Peter Phelps MLC</b>	Liberal Party	
<b>The Hon Adam Searle MLC</b>	Australian Labor Party	
<b>The Hon Mick Veitch MLC</b>	Australian Labor Party	

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## Chair's foreword

I am pleased to present the committee's report into the supply and cost of gas and liquid fuels in New South Wales. This is a pressing issue for the people of New South Wales hence the reason for the establishment of this committee late last year.

The eastern Australian gas market, of which New South Wales is a part, is facing significant change. For the first time, the market is being linked to international markets through the development of a Liquefied Natural Gas export industry in Queensland. In addition, the long term contracts which have underpinned the secure supply of gas to New South Wales are coming to an end.

A number of stakeholders indicated that the effect of these factors is that New South Wales may face a gas supply shortage and gas prices for households and businesses will likely increase. It is therefore vital that the NSW Government acts to address these challenges.

The NSW government proposes to address the challenges facing New South Wales by developing the state's coal seam gas reserves. In light of the significant public debate about coal seam gas extraction, it is a recommendation of this report that such expansion is not contemplated until all the recommendations of the NSW Chief Scientist and Engineer, contained in the 2014 *Independent Review of Coal Seam Gas Activities in NSW*, are implemented in full.

This report also argues that the development of the state's coal seam gas reserves will not, on its own, act to address the challenges facing the gas market in New South Wales. The committee recommends pursuing an Australia-wide gas reservation policy, to assist in containing gas prices and to ensure security of supply.

Another important aspect of this inquiry is improving transparency in the gas market. In order for gas markets to operate effectively there needs to be current and accessible information as to how much gas is available to purchase. This area of the gas market is currently lacking. This report recommends that the Minister for Resources and Energy seeks to address this through the Council of Australian Governments' Energy Council by seeking to have information on supply available on the Gas Bulletin Board and the creation of a gas market equivalent of the National Electricity Market.

I would like to thank the many participants in this inquiry who provided a submission and appeared before the committee. I would also like to thank my colleagues on the committee for their commitment and hard work during the course of the inquiry. I also wish to thank the secretariat staff for their work in supporting the committee.



Hon Robert Borsak MLC  
**Committee Chair**

## Summary of recommendations

### Recommendation 1

31

That the Minister for Resources and Energy, through the Council of Australian Governments' Energy Council, seek to have information detailing the amount of gas available for purchase included on the National Gas Bulletin Board.

### Recommendation 2

32

That the Minister for Resources and Energy:

- through the Council of Australian Governments' Energy Council, seek to create a gas market equivalent of the National Electricity Market
- undertake an audit of all regulatory tools available to the NSW Government to improve transparency and openness in the gas market in New South Wales and Australia.

### Recommendation 3

37

That the New South Wales Government fully implement the Chief Scientist and Engineer's *Final Report of the Independent Review of Coal Seam Gas Activities in NSW* (September 2014) before any expansion of the coal seam gas industry in New South Wales is contemplated.

### Recommendation 4

44

That the Minister for Resources and Energy, through the Council of Australian Governments' Energy Council, pursue the implementation of an Australia-wide domestic gas reservation policy, while the recommendations in the Chief Scientist and Engineer's *Final Report of the Independent Review of Coal Seam Gas Activities in NSW* (September 2014) are being implemented.

## Chapter 1 Introduction

This chapter provides an overview of the establishment of the Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales and its terms of reference. It also describes the way the inquiry was conducted and provides an outline of the structure of this report.

### Establishment and conduct of the inquiry

#### Establishment of the inquiry

- 1.1 On 6 November 2014, a motion was moved by the Hon Robert Brown MLC and passed by the Legislative Council to establish the Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales.
- 1.2 The committee comprised seven members as set out on page v. The resolution establishing the committee specified the Hon Robert Borsak MLC as Chair, Mr Jeremy Buckingham MLC as Deputy Chair, and required the committee to report by 25 February 2015.<sup>1</sup>

#### Terms of reference

- 1.3 The inquiry terms of reference required the committee inquire into and report on various issues relating to the supply, cost and availability of gas and liquid fuels in New South Wales.
- 1.4 The terms of reference are set out at page iv.

### Conduct of the inquiry

#### Submissions

- 1.5 The committee invited submissions by advertising in the *Sydney Morning Herald*, *Financial Review* and *The Land* newspapers. A media release announcing the inquiry was sent to all media outlets in New South Wales.
- 1.6 The committee also sought submissions by writing directly to individuals and organisations with a likely interest in the inquiry, including government agencies, industry and community organisations and subject experts. The closing date for submissions was 30 December 2014.
- 1.7 The committee received a total of 36 submissions. A list of submissions is available at Appendix 1.

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<sup>1</sup> *Minutes*, Legislative Council, 6 November 2014, pp 243-244.

### **Public hearings**

- 1.8** The committee held two public hearings at Parliament House on 28 January and 2 February 2015.
- 1.9** A list of witnesses who appeared at hearings is reproduced in Appendix 2. The list of documents tabled during the hearings is at Appendix 3. A list of witnesses who provided answers to questions taken on notice during the hearings is available in Appendix 4.

### **Site visit**

- 1.10** The committee conducted a site visit to AGL Energy Limited's Camden Gas Project in Menangle on 11 December 2014. The committee inspected the site, visiting gas wells on surrounding properties, and was assisted by a number of officers from AGL.

### **Report structure**

- 1.11** Chapter 2 provides background information on the New South Wales gas market. It notes that 95 per cent of the state's supply comes from interstate and documents recent developments in the eastern Australian gas market, including the creation of a Queensland gas export industry which means that New South Wales will face greater international competition for gas produced elsewhere in Australia. In addition, the actions taken by a number of public authorities in response to the changing eastern Australian gas market are identified.
- 1.12** Chapter 3 looks at two conflicting arguments regarding the future of the New South Wales gas market. Firstly, that the state is facing looming gas supply shortages and that an indigenous gas source is needed to secure supply and put downward pressure on prices. Secondly, that the demand for gas will significantly decrease as consumers and industry alike adjust to increased gas prices, which will rise regardless of whether there is an indigenous supply, by seeking alternate forms of energy. The chapter also considers issues relevant to gas market transparency and the commercial conduct of gas producers.
- 1.13** Chapter 4 considers how New South Wales should best respond to potential gas supply shortages and achieve energy security and affordability. It examines the policy of reserving gas produced in Australia for domestic use and also discusses the impact of liquid fuel refinery closures.

## Chapter 2 The New South Wales gas market

This chapter provides background information on the New South Wales gas market. It begins by noting the different forms and uses of gas, and describing the gas supply chain. The next section details the composition of the New South Wales gas market with its key feature being that 95 per cent of the state's supply comes from interstate. The chapter then describes recent developments in the eastern Australian gas market, in particular the creation of a Queensland gas export industry, which for the first time will place New South Wales in competition with international buyers for gas produced in eastern Australia. The chapter concludes by identifying possible responses to the changing eastern Australian gas market.

### What is gas?

- 2.1 Gas has many different forms and uses and it meets a variety of needs in New South Wales. The gas supply chain refers to the processes whereby gas is identified, processed and made available to the end user.

#### Conventional and unconventional gas

- 2.2 Like oil, conventional and unconventional gas are petroleum resources. Conventional and unconventional gas are the same product, namely natural gas which consists primarily of methane.<sup>2</sup>
- 2.3 The point of difference between conventional and unconventional gas is differing extraction processes attributable to the geological composition of where the gas is located. Conventional gas is obtained from underground reservoirs, largely comprised of porous sandstone, and can be released through a well without the need to pump. Unconventional gas, on the other hand, is contained in dense geological systems that limit the migration of the gas without complex technological intervention. There are three types of unconventional gas: coal seam gas (CSG), shale gas and tight gas.<sup>3</sup>
- 2.4 Unconventional gas, in particular CSG, has been subject to much public criticism which has focused on issues such as the environmental impacts of extraction and the legal rights of landholders whose properties are subject to CSG exploration or production.<sup>4</sup> This is due to perceived concerns about the impact it may have on water resources and public health, and the potential for wells and associated infrastructure to impact upon farmland and rural communities.

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<sup>2</sup> NSW Parliamentary Library Research Service, Gas: resources, industry structure and domestic reservation policies, Background Paper No 12, (2013), p 14.

<sup>3</sup> NSW Parliamentary Library Research Service, Gas: resources, industry structure and domestic reservation policies, Background Paper No 12, (2013), p 14

<sup>4</sup> These and other issues related to CSG extraction were considered in detail by the General Purpose Standing Committee No. 5 of the New South Wales Legislative Council in its report no. 35 entitled, *Coal Seam Gas* (May 2012).

- 2.5** There are significant reserves of CSG in New South Wales but the industry is largely at an exploratory stage. Exploration licences cover 60 per cent of the state.<sup>5</sup> The two most advanced prospective production sites are located at Narrabri (operated by Santos Limited) and Gloucester (operated by AGL Energy Limited). The NSW Government has not issued any new CSG exploration licences since 2011.<sup>6</sup>
- 2.6** The only CSG currently being produced in New South Wales is from Camden, located 65 kilometres south-west of the Sydney central business district, where AGL has been producing CSG for more than twelve years.<sup>7</sup>
- 2.7** Once extracted both conventional and unconventional gas are typically converted into Liquefied Natural Gas (LNG). LNG is natural gas chilled to minus 161°C so that it becomes a liquid and takes up much less space. LNG occupies about 1/600 of the space of methane in its gaseous form making it easier and cheaper for it to be transported to market.<sup>8</sup>

### **Uses and economic value**

- 2.8** Gas is a vital energy resource. Currently, over one million New South Wales households have some form of gas supply for cooking and/or heating. Gas is also used by over 33,000 New South Wales businesses with the state's gas dependent industries employing over 300,000 people.<sup>9</sup>
- 2.9** Nationally, natural gas is Australia's second largest energy source after coal. In 2012-2013, gas accounted for one quarter of Australia's primary energy consumption.<sup>10</sup>
- 2.10** In New South Wales in 2012-2013, the following sectors were responsible for the majority of the state's gas consumption: manufacturing (50 per cent), electricity generation (25 per cent) and residential (16 per cent).<sup>11</sup> The Business Council of Australia noted that the gas industry contributes to the economy in numerous ways. These include investment, job creation, export revenue, taxation and energy security.<sup>12</sup>

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<sup>5</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 8.

<sup>6</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 4.

<sup>7</sup> Submission 25, NSW Business Chamber, p 3.

<sup>8</sup> NSW Parliamentary Library Research Service, Gas: resources, industry structure and domestic reservation policies, Background Paper No 12, (2013), p 14.

<sup>9</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 1; evidence, the Hon Anthony Roberts MP, Minister for Resources and Energy, 28 January 2015, p 12.

<sup>10</sup> NSW Parliamentary Library Research Service, A tightening gas market: supply, demand and price outlook for NSW, Background Paper No 4, (2014), p 9.

<sup>11</sup> NSW Parliamentary Library Research Service, A tightening gas market: supply, demand and price outlook for NSW, Background Paper No 4, (2014), p 10.

<sup>12</sup> Submission 31, Business Council of Australia, p 37.

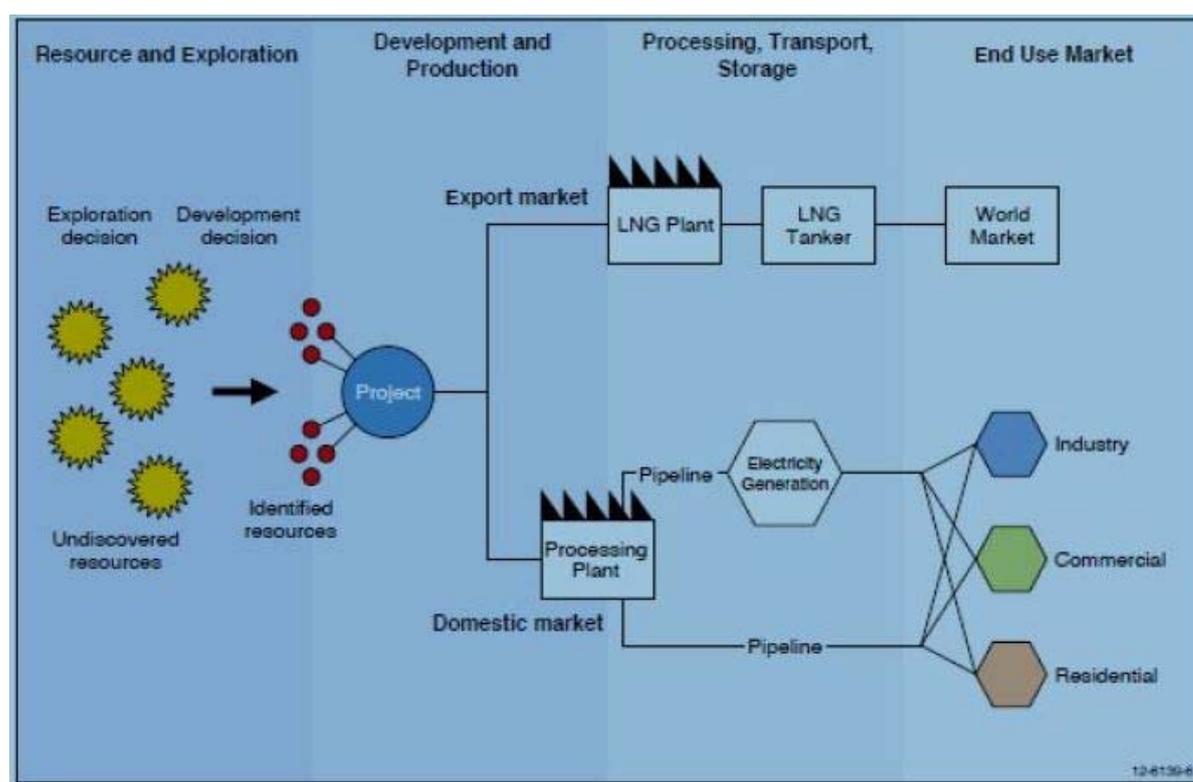
**2.11** According to the Australian Petroleum Production and Exploration Association (APPEA), in 2012 gas and oil production contributed \$29.4 billion to the national economy. This accounted for two per cent of Australia's gross domestic product.<sup>13</sup>

**2.12** The inquiry received a range of evidence with respect to gas supply and demand issues. Some inquiry participants predicted potential gas shortfalls while others forecast significant decreases in demand.<sup>14</sup> These issues are considered in further detail in chapter 3.

### Gas supply chain

**2.13** The gas supply chain is comprised of a number of distinct stages. The upstream sector generally encompasses exploration, development and production. Downstream sector activities include processing, distribution, storage, wholesaling and retailing.<sup>15</sup> Figure 1 shows the stages which comprise Australia's gas supply chain

**Figure 1 The Australian gas supply chain**



Australian Government, Bureau of Resources and Energy Economics, *Australian Gas Resource Assessment 2012*, accessed 14 January 2014, <http://www.bree.gov.au/files/files/publications/other/gasresourceassessment.pdf>.

<sup>13</sup> Australian Petroleum Production and Exploration Association, 'Economic Benefits', accessed 14 January 2015, <http://www.appea.com.au/oil-gas-explained/benefits/economic-benefits/>.

<sup>14</sup> For examples see: evidence, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, 28 January, p 50; and evidence, Mr Paul Fennelly, Chief Operating Officer, Eastern Region, Australian Petroleum Production and Exploration Association, 2 February 2015, 72.

<sup>15</sup> NSW Parliamentary Library Research Service, *A tightening gas market: supply, demand and price outlook for NSW*, Background Paper No 4, (2014), p 9.

- 2.14** Unlike electricity, there is not a national wholesale market for gas. Gas has typically been traded bilaterally via long-term contracts. Gas producers sell to large gas purchasers – energy retailers and large industrial gas users. Gas is transported by pipelines that connect gas fields to gas consumers. Pipeline operators sell capacity on gas pipelines, which transmit gas long distances at high pressure. Distribution businesses deliver gas locally on lower pressure systems.<sup>16</sup>

## **Recent developments in the eastern Australian gas market**

- 2.15** New South Wales is part of the eastern Australian gas market. It is a market currently undergoing significant change. This change is primarily being driven by the development of LNG export facilities in Queensland which will for the first time connect domestic gas suppliers to global markets.

### **Eastern Australian gas market**

- 2.16** The eastern Australian gas market is one of three gas markets in Australia, encompassing New South Wales, the Australian Capital Territory, Queensland, South Australia, Tasmania and Victoria. The remaining two gas markets are the western market (Western Australia) and the northern market (the Northern Territory).<sup>17</sup>
- 2.17** The eastern Australian gas market is serviced by a network of transmission pipelines, which connect gas basins with metropolitan demand centres, electricity generators and industry. The two major gas transmission pipelines into New South Wales are the Moomba to Sydney Pipeline, owned by APA Group, and the Eastern Gas Pipeline, owned by Jemena.<sup>18</sup>
- 2.18** Mr Steve Davies, National Policy Manager, Australian Pipeline Industry Association, advised that South Australia and Victoria are the principal suppliers of gas to New South Wales. Both states supply approximately 400 terajoules per day to New South Wales which has a pipeline capacity to receive 800 terajoules per day.<sup>19</sup>
- 2.19** The eastern Australian gas market is the largest domestic market servicing the largest population. It also hosts a large proportion of Australia's manufacturing activity. As a result of colder winters, the eastern Australian gas market experiences greater seasonality in demand than the western and northern markets.<sup>20</sup>

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<sup>16</sup> NSW Parliamentary Library Research Service, A tightening gas market: supply, demand and price outlook for NSW, Background Paper No 4, (2014), p 10.

<sup>17</sup> NSW Parliamentary Library Research Service, Gas: resources, industry structure and domestic reservation policies, Background Paper No 12, (2013), p 6.

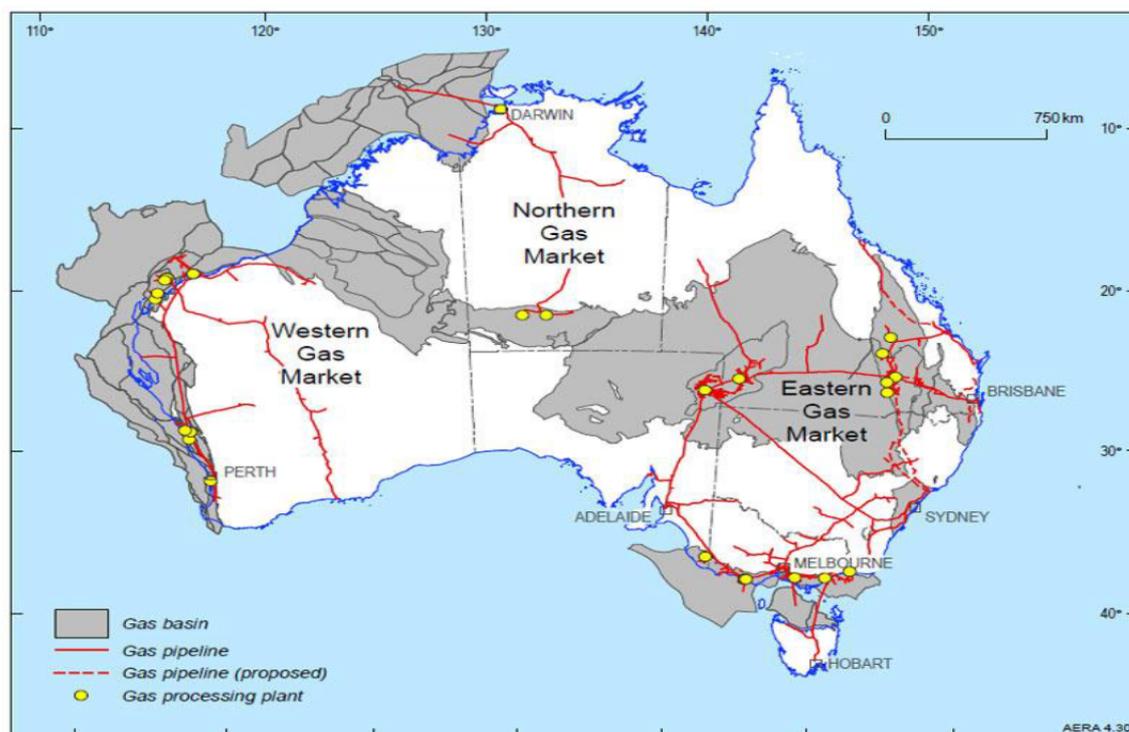
<sup>18</sup> Submission 29, the Australian Pipeline Industry Association, p 1.

<sup>19</sup> Evidence, Mr Steve Davies, National Policy Manager, Australian Pipeline Industry Association, 2 February 2015, 33.

<sup>20</sup> Australian Government, '2014 Eastern Australian Domestic Gas Market Study', accessed 30 January 2015, <http://www.industry.gov.au/Energy/EnergyMarkets/Documents/EasternAustralianDomesticGasMarketStudy.pdf>, p 37.

2.20 Figure 2 illustrates the geographic coverage of each of the gas markets in Australia and shows the location of gas infrastructure such as pipelines.

**Figure 2 Australia's gas markets and infrastructure**



Australian Government, Bureau of Resources and Energy Economics, *Gas Market Report*, November 2014, accessed 16 January 2015, <http://www.bree.gov.au/files/files/publications/gas-market/gasmarketreport-201411.pdf>

### Expansion into international markets

- 2.21 The eastern Australian gas market is currently expanding into global markets for the first time. This is an important issue for New South Wales because it relies heavily on other states for its gas supply, importing approximately 95 per cent of its total consumption.<sup>21</sup> The remaining five per cent derives from CSG produced in New South Wales by AGL's Camden Gas Project.<sup>22</sup>
- 2.22 In recent years, there has been significant CSG production in Queensland coupled with the development of a LNG export industry via the construction of four export facilities located at Gladstone's Curtis Island, Queensland.<sup>23</sup>

<sup>21</sup> NSW Parliamentary Library Research Service, *Gas: resources, industry structure and domestic reservation policies*, Background Paper No 12, (2013), p 1.

<sup>22</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 12.

<sup>23</sup> Australian Government, '2014 Eastern Australian Domestic Gas Market Study', accessed 30 January 2015, <http://www.industry.gov.au/Energy/EnergyMarkets/Documents/EasternAustralianDomesticGasMarketStudy.pdf>, p 8.

- 2.23** The LNG export facilities, which have a combined estimated construction cost of over \$75 billion, are the:
- Gladstone LNG project, funded by Petronas, Santos, Total and Kogas
  - Australia Pacific LNG project, funded by Origin Energy, Conoco Phillips and Sinopec
  - Queensland Curtis LNG project, funded by BG Group
  - Arrow LNG project, funded by Royal Dutch Shell and Petrochina.<sup>24</sup>
- 2.24** The Queensland Curtis LNG project was the first to commence export operations loading its first cargo of LNG in late 2014.<sup>25</sup> The other export facilities are expected to become operational later in 2015.<sup>26</sup> Six LNG trains have been built to service the export facilities.<sup>27</sup>
- 2.25** As a result of these developments, the other states that have traditionally supplied gas to New South Wales now have the opportunity to sell their gas to international buyers at a price higher than what they have been historically been able to obtain from local consumers.

### **Price impacts of international expansion**

- 2.26** Inquiry participants gave evidence on the price impacts of expansion into international markets. For example, the Independent Pricing and Regulatory Tribunal (IPART) observed that New South Wales gas retailers will have to compete with offshore buyers for wholesale gas, which they found is likely to drive prices higher:

For the first time, the ability to export liquid natural gas (LNG) means that gas reserves previously supplied to NSW are being directed through Gladstone in Queensland for export. Eastern Australia is becoming part of a single global market for commodity gas, and wholesale prices are being increasingly set by international prices. In the future, it is likely that NSW gas retailers will have to compete with offshore demand and pay export parity prices for wholesale gas.<sup>28</sup>

- 2.27** According to Mr Matt Grudnoff, Senior Economist, The Australia Institute, the likely impact of the export facilities becoming operational will be a tightening of gas supply and a higher domestic gas price given that demand for exports coming 'out of Queensland is twice as large as the entire eastern Australian gas market'.<sup>29</sup>
- 2.28** This position was shared by AGL who argued that as a result of being connected to the international market, there are likely to be supply pressures as well as significant price increases in the eastern Australian gas market:

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<sup>24</sup> Gladstone Regional Council, 'LNG Related Projects', accessed 30 January 2015, <http://www.gladstone.qld.gov.au/lng-related-projects>.

<sup>25</sup> BG Group, 'BG Group loads first LNG cargo from QCLNG', accessed 30 January 2015, <http://www.qgc.com.au/news-media/NewsDetails?Id=5630>.

<sup>26</sup> NSW Parliamentary Library Research Service, A tightening gas market: supply, demand and price outlook for NSW, Background Paper No 4, (2014), p 1.

<sup>27</sup> Evidence, Mr Matt Grudnoff, Senior Economist, The Australia Institute, 28 January 2015, p 39.

<sup>28</sup> Submission 23, Independent Pricing and Regulatory Tribunal, p 2.

<sup>29</sup> Evidence, Mr Grudnoff, 28 January 2015, p 39.

Eastern Australia's natural gas markets are undergoing rapid and unprecedented change. Large discoveries of coal seam gas reserves have underpinned over \$60 billion of investment in Liquefied Natural Gas infrastructure in Queensland, enabling the export for the first time of natural gas from 2015. This export capability will see a tripling of demand for gas in eastern Australian gas markets....Going forward, the market is likely to have a much tighter supply and demand balance, and significantly higher prices as a result.<sup>30</sup>

- 2.29** The Australia Institute advised that wholesale gas prices in the eastern Australian gas market have historically been around \$3 to \$4 per gigajoule, while prices in Asian markets are much higher at around \$15 per gigajoule. The Institute claimed that once producers are linked to the international parity price (namely, the international price minus transportation costs) domestic wholesale prices will rise from their historic level to approximately \$9 per gigajoule:

Once domestic gas producers can sell onto the international markets, prices in Australia will rise from their historic \$3 or \$4 dollars to closer to the world price. Eastern Australia's wholesale prices will remain below world delivered prices as gas produced here does not need to be processed and transported. Most analysts believe Australian wholesale gas prices will reach \$9 per gigajoule.<sup>31</sup>

- 2.30** The impact of increasing gas prices on households and industry was noted by a number of inquiry stakeholders. For example, the Public Interest Advocacy Centre stressed the negative impact on low-income and vulnerable households of previous gas price rises compounded by likely future price increases:

Clearly past, present and future rising gas prices are of concern for NSW household consumers, particularly for renters, low-income and other vulnerable consumers. Gas, while an optional fuel, is for most households providing an essential service to residential customers, be it via heating hot water or cooking.<sup>32</sup>

- 2.31** The NSW Business Chamber highlighted the impact of rising gas prices on the viability of the state's manufacturing industry:

While price increases and reduced availability of supply will impact across the NSW economy, these pressures will be felt especially hard by manufacturers. Given the manufacturing sector's position as the largest consumer of gas in NSW, higher gas prices will significantly impact on the sector's profitability and longer term sustainability within the state.<sup>33</sup>

- 2.32** The Australian Workers' Union argued that the net flow-on loss to the Australian economy of the move to export LNG, and the subsequent domestic gas price rises, will be \$101 billion including the loss of approximately 235,000 jobs economy wide.<sup>34</sup>

<sup>30</sup> Submission 17, AGL Energy Limited, p 1

<sup>31</sup> Submission 8, The Australian Institute, p 3.

<sup>32</sup> Submission 33, Public Interest Advocacy Centre, pp 4 – 5.

<sup>33</sup> Submission 25, NSW Business Chamber, p 5.

<sup>34</sup> Submission 35, The Australian Workers' Union, p 8.

### Expiration of long-term contracts

- 2.33** Given the capital-intensive nature of gas infrastructure, gas has typically been traded bilaterally via long-term contracts usually 20 to 30 years in length. Long-term contracts were written to guarantee gas supply and investment certainty. The terms and conditions of these contracts are largely confidential to the parties involved and the gas trading community.<sup>35</sup>
- 2.34** The long-term contracts which underpin the supply of gas into New South Wales are due to expire in the near future. The Hon Anthony Roberts MP, Minister for Resources and Energy, advised that the expiration of the gas contracts, coupled with the development of the Queensland LNG export industry, will make it more difficult for New South Wales to secure long-term gas supply:
- Many long-term, low-cost contracts for imported gas supplies will be coming to an end over the next three years and it is becoming increasingly difficult for long-term supply arrangements to be reached given the state of the change in the east coast gas market, with Queensland export hubs now coming online.<sup>36</sup>
- 2.35** The Minister then informed the committee that gas produced in other states, which historically has been supplied to New South Wales, was likely to be directed to the Queensland LNG export facilities to take advantage of the higher prices available in international markets.<sup>37</sup>
- 2.36** Santos, an Australian oil and gas exploration and production company, claimed that the expiration of the long-term contracts means New South Wales will face additional competition to secure gas. Santos urged the state to develop its own gas resources so as to alleviate looming supply and price pressures:
- NSW historic gas supply contracts effectively expire in 2015-2016 and after this period NSW will need to compete for gas supplies with other States and customers within the Eastern Gas Market. Not developing its own natural gas resources will put NSW at a significant competitive disadvantage and result in customers paying unnecessarily high prices for gas on the East Coast.<sup>38</sup>
- 2.37** Minister Roberts indicated that the NSW government ‘will [develop] our gas reserves in New South Wales to give us greater energy security’.<sup>39</sup> Mr Andrew Lewis, Acting Director, Operations and Programs, NSW Department of Trade and Investment, advised that CSG will be one of the primary means by which New South Wales will develop its own gas resources.<sup>40</sup>
- 2.38** According to the 2014 Eastern Australian Domestic Gas Market Study, undertaken by the Australian Bureau of Resources and Energy Economics and the Australian Government

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<sup>35</sup> NSW Parliamentary Library Research Service, A tightening gas market: supply, demand and price outlook for NSW, Background Paper No 4, (2014), p 5 and p 52.

<sup>36</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 2.

<sup>37</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 5.

<sup>38</sup> Submission 36, Santos Limited, p 3.

<sup>39</sup> Evidence, the Hon Anthony Roberts MP, Minister for Resources and Energy, 28 January 2015, p 5.

<sup>40</sup> Evidence, Mr Andrew Lewis, Acting Director, Operations and Programs, NSW Department of Trade and Investment, p 6.

Department of Industry, CSG in New South Wales has ‘the potential to supply more than half of current New South Wales domestic demand within the next five years’.<sup>41</sup>

### Market transparency

- 2.39** Minister Roberts observed that the gas market ‘is incredibly opaque’, partly as a consequence of contract confidentiality. He added that more needs to be done so that the amount of gas within the system can be better understood. The Minister also criticised gas companies for not being overly forthcoming with regard to disclosing information about gas supply:

We need to understand how much gas is in the system...One of the frustrations I have had, I suppose, is when I have called in the marketplace about what is in those contracts some of the companies could be a little bit more open—the quantum of the contracts, as to the clauses in those contracts with respect to failure to supply that quantum. Those companies have not been overly forthcoming, claiming commercial in confidence. It has always been my belief that that is not good enough.<sup>42</sup>

- 2.40** Similar frustrations about market transparency were shared by a number of other inquiry participants including Brickworks, a gas dependent manufacturer, the Lock the Gate Alliance and Mr Bruce Robertson, an energy analyst.<sup>43</sup> Further consideration is given to the commercial conduct of gas suppliers in chapter 3.

### Committee comment

- 2.41** The committee was informed by a number of parties that the new capability to supply gas to international customers will mean domestic customers will have to pay higher prices in order to secure gas supply.
- 2.42** The evidence to this committee is that, despite decline in demand for gas from both industrial and residential customers, which has been evident for a number of years,<sup>44</sup> and is predicted to continue,<sup>45</sup> and perhaps even to collapse<sup>46</sup> producers will increase their wholesale gas prices, under the spectre of being able to export.

<sup>41</sup> Australian Government, ‘2014 Eastern Australian Domestic Gas Market Study’, accessed 30 January 2015, <http://www.industry.gov.au/Energy/EnergyMarkets/Documents/EasternAustralianDomesticGasMarketStudy.pdf>, p 8.

<sup>42</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 2.

<sup>43</sup> Submission 9, Brickworks, p 8; evidence, Ms Carmel Flint, Campaign Coordinator, Lock the Gate Alliance, 28 January 2015, p 17; submission 6, Mr Bruce Robertson, p 2.

<sup>44</sup> The Australian Energy Market Operator, *National Gas Forecasting Report 2014*, accessed 19 February 2015, <http://www.aemo.com.au/Gas/Planning/Forecasting/National-Gas-Forecasting-Report>, p 26.

<sup>45</sup> The Australian Energy Market Operator, *National Gas Forecasting Report 2014*, accessed 19 February 2015, <http://www.aemo.com.au/Gas/Planning/Forecasting/National-Gas-Forecasting-Report>, pp 7-9, pp 26-29.

<sup>46</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*, p 16.

**2.43** The evidence to this committee is clear: the production of gas in Australia completely eclipses any domestic demand, whether from residential or commercial users.<sup>47</sup> Any difficulty with supply or cost can only occur if private commercial interests place the maximisation of their own profits above the energy security and affordability of the community. This in turn can only take place due to regulatory and market failure. All governments must take action to ensure the interests of the wider community come first.

## Responses to developments in the eastern Australian gas market

**2.44** The NSW government and a number of other public authorities have or are considering possible responses to the developments taking place in the eastern Australian gas market.

**2.45** In November 2014, the NSW government released the *NSW Gas Plan* to deal with the changes that are occurring in the eastern Australian gas market. The NSW government's key objection regarding gas supply is 'to secure, reliable, affordable and sustainable [gas] supplies for NSW households and businesses'.<sup>48</sup> To that end, the *NSW Gas Plan* sets out a number of actions the NSW government will undertake to achieve its objective. These actions and other potential means to ensure energy security are outlined in chapter 4.

**2.46** A number of public authorities have recently or are currently considering possible responses to the developments that are taking place within the eastern Australian gas market.

- A current Productivity Commission inquiry is examining barriers to more efficient gas markets. One of its key objectives is to examine the implications of domestic suppliers linking to global markets and what this means for various gas market participants.<sup>49</sup>
- The New South Wales Legislative Assembly State and Regional Development Committee in November 2014 tabled a report which examined downstream gas supply and availability in New South Wales.<sup>50</sup>
- The Australian government's Energy Green Paper was released in September 2014. The discussion paper seeks comment on policy approaches which aim to ensure reliable and affordable energy that supports industry, lowers the cost of living, and grows exports. A key focus of the Green Paper is how to best manage the transition of the eastern Australian gas sector into international gas markets. Feedback on the Green Paper will be used to inform the development of a White Paper which will set out the policy approaches ultimately adopted by the Australian government.<sup>51</sup>

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<sup>47</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*, p 16.

<sup>48</sup> Submission 19, NSW Government, p 1.

<sup>49</sup> Productivity Commission, 'Examining Barriers to More Efficient Gas Markets', accessed 19 January 2015, <http://www.pc.gov.au/research/current/gas-markets>.

<sup>50</sup> State and Regional Development Committee, New South Wales Legislative Assembly, Parliament of New South Wales, *Downstream Gas Supply and Availability in NSW*, (2014).

<sup>51</sup> Australian Government, 'Energy White Paper – Green Paper', accessed 19 January 2015 [http://ewp.industry.gov.au/files/egp/energy\\_green\\_paper.pdf](http://ewp.industry.gov.au/files/egp/energy_green_paper.pdf).

**Committee comment**

- 2.47** The committee recognises that gas is a vital energy source. It is used by over one million New South Wales households for cooking and cleaning. Gas also makes a significant contribution to industry with it being used by over 33,000 businesses in New South Wales.
- 2.48** Historically, New South Wales has sourced its gas from a market insulated from international competition. This has kept domestic gas prices low benefiting both households and industry. The committee notes that once the Queensland LNG plants are fully operational, for the first time domestic producers will be able to sell gas to international buyers willing to pay up to \$15 per gigajoule. This is substantially higher than the current domestic wholesale price of \$3 to \$4 per gigajoule.
- 2.49** With international markets prepared to pay more for eastern Australian gas, the committee accepts that domestic prices will inevitably increase, without a compensating increase in new supply from domestic sources that are not linked to international markets. The committee also accepts that the development of a New South Wales indigenous gas supply by itself will have no impact on the international price of gas and therefore no meaningful impact on the domestic price of gas. Forthcoming cost increases are a concerning development for households and businesses alike that rely on gas for their energy needs.
- 2.50** It is clear that the NSW government must take whatever reasonable actions consistent with a market economy it can to protect households and businesses from potential shortages or price shocks, particularly by encouraging increases in supply. This is an issue of not just state but national importance, as shown by the many reviews of this issue undertaken by other state and federal bodies. The means available to New South Wales through which it can achieve energy security and affordability, including the *NSW Gas Plan* are discussed in chapter 4.



## Chapter 3 A looming gas shortage?

This chapter begins by looking at the prediction of some inquiry participants that the state is facing looming gas supply shortages. The basis for this scenario is the development of Queensland's Liquid Natural Gas (LNG) export industry and New South Wales' underdeveloped gas resources meaning that the state will face increased competition to secure gas produced elsewhere in Australia at an affordable price. The chapter then considers an alternate forecast made by other inquiry participants, namely that gas price increases will lead to significant reductions in demand and therefore avert a shortfall. It concludes by considering issues relevant to gas market transparency and the commercial conduct of gas producers.

### Potential gas shortages

- 3.1** The establishment of the eastern Australian gas market export industry means that New South Wales will face greater competition for gas produced elsewhere in Australia given the willingness of international buyers to pay higher prices than has been the case domestically. Another changing market dynamic is that long-term gas supply contracts will soon expire.
- 3.2** A likely consequence of these developments is that there will be a decline in gas supplies at *current prices* over the next five years, not a gas shortage.<sup>52</sup> One solution put to the committee was that New South Wales should develop its own gas resources to mitigate future supply pressures. Another solution is Australia, as a single economy, not a collection of jurisdictions, require a portion of gas extracted to be reserved for domestic sale only, as a number of other countries have done (see chapter 4).<sup>53</sup>

### Declining gas availability?

- 3.3** New South Wales' exposure to the changes occurring in the eastern Australia gas market led some inquiry participants to predict that the state will face potential gas supply shortages over the next five years. For example, AGL Energy Limited claimed that New South Wales is facing '21 days of unmet [gas] demand in 2016' and that this will have 'dire economic and social consequences'.<sup>54</sup>
- 3.4** According to AGL, 'the development of the LNG export facilities will see rapid growth of gas demand in the near future, which may exceed aggregate supply in the short to medium term'.<sup>55</sup>
- 3.5** Santos Limited similarly argued that 'it is now accepted that NSW may have gas shortages and challenges after 2016 when the existing supply contracts with NSW gas retailers [expire]'.<sup>56</sup>

<sup>52</sup> Tim Forcey and Mike Sandiford, Melbourne Energy Institute at University of Melbourne, 28 January 2015, *Business Spectator*, 'A crash in gas use is more likely than the forecast 'shortage'', accessed 18 February 2015, <http://www.businessspectator.com.au/article/2015/1/28/energy-markets/crash-gas-use-more-likely-forecast-shortage>.

<sup>53</sup> Submission 35, The Australian Workers' Union, p 1, p 4, p 7, pp 9-10; evidence, Mr Michael Zelinsky, National Vice-President, Australian Workers Union, 2 February 2015, pp 12-17.

<sup>54</sup> Submission 17, AGL Energy Limited, p 2 and p 4.

<sup>55</sup> Submission 17, AGL Energy Limited, p 4.

<sup>56</sup> Submission 36, Santos Limited, p 12.

- 3.6** Santos advised that the gas from the Cooper Basin in South Australia (which supplies just under half of the gas currently imported into New South Wales) would no longer be supplied to New South Wales with producers, including Santos, signing contracts to export this gas via the Queensland LNG projects.<sup>57</sup>
- 3.7** Santos indicated that after 2016, as existing supply contracts with New South Wales gas retailers from the Cooper Basin come to an end, they would reduce their share of gas flows down the Moomba to Sydney pipeline by 10 – 20 petajoules per annum.<sup>58</sup>
- 3.8** Mr Paul Orton, Director, Policy and Advocacy, NSW Business Chamber, also forecast gas shortages in New South Wales. He asserted that impending shortages were creating angst within the business community during a period of economic uncertainty:

Supply is constrained in New South Wales because existing sources of gas are running out...[T]he looming gas shortage and price pressures are adding to uncertainty and cost increases for manufacturing and other industry at a time when confidence is demonstrably fragile.<sup>59</sup>

### **The NSW Government's position**

- 3.9** The Hon Anthony Roberts MP, Minister for Resources and Energy, acknowledged that New South Wales is facing increasing competition for imported gas as producers look to sell their gas overseas. The Minister advised that the NSW Government relies on information prepared by the Australian Energy Market Operator (AEMO), and that based on its forecasts, the state is facing potential gas shortages over the next five years.<sup>60</sup>
- 3.10** Minister Roberts emphasised that the state's industrial sector would be worst affected by gas shortages. He argued that the best solution is for New South Wales to develop its own gas resources thereby increasing domestic supply:

Large industrial customers, including manufacturing and chemical industries, which employ over 300,000 people in New South Wales, would of course be the first affected by those shortages... My position is very clear: an increase in domestic supply in New South Wales will do a lot to reduce those demand pressures.<sup>61</sup>

- 3.11** An additional reason identified by the NSW government, underpinning the move to develop the state's gas resources, is the expectation that increased supply will place downward pressure on household prices. This is important given the regulated price of retail gas has already risen 11.2 per cent over the past year.<sup>62</sup>

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<sup>57</sup> Submission 36, Santos Limited, p 12.

<sup>58</sup> Answers to supplementary questions, 28 January 2015, Santos Limited, question 2.

<sup>59</sup> Evidence, Mr Paul Orton, Director, Policy and Advocacy, NSW Business Chamber, 2 February 2015, p 2.

<sup>60</sup> Evidence, the Hon Anthony Roberts MP, Minister for Resources and Energy, 28 January 2015, p 4.

<sup>61</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 4.

<sup>62</sup> Submission 19, NSW Government, p 2.

- 3.12** However, the Minister noted that modelling undertaken by ACIL Allen shows that should the Narrabri and Gloucester coal seam gas projects come online, there would be a decrease in the price of gas of around three per cent. Should they not come online, ACIL Allen forecast a corresponding increase of some three per cent.<sup>63</sup>

### **Impact on the manufacturing industry**

- 3.13** One key area of concern regarding declining gas availability is the impact on industry. For example, the NSW government stated that gas shortages ‘could have serious impacts on NSW manufacturers, electricity generators and other industries that rely on gas’. The NSW government added that the aforementioned industries employ over 300,000 people and stressed that the jobs of those employed by gas dependent manufacturers are particularly at risk if the state cannot secure affordable and reliable gas.<sup>64</sup>

- 3.14** AGL similarly emphasised the threat posed to the manufacturing sector, attributable to the decline in available gas supplies at current prices and the expiration of long-term supply contracts:

Gas-intensive industrial users in NSW that have contracts maturing over the next few years will either need to pay a substantially higher price for gas supply, cease trading or reduce production. Under these conditions it is likely that employment in the manufacturing sector will be affected. In NSW, large gas users are concentrated in Greater Western Sydney, the Central Coast and regional areas including Newcastle and Bathurst, and it is therefore these areas that would be most at risk.<sup>65</sup>

- 3.15** The Australian Workers Union (AWU) asserted that if nothing is done to secure affordable gas supply then employment, living standards and economic competitiveness will be undermined. The AWU also provided the following national figures so as to quantify the negative impact of gas shortages on manufacturers:

- 1 in 5 (heavy) manufacturers to shutdown
- Manufacturing production will be reduced by 15.4 per cent in 2023
- Local content of LNG construction has fallen considerably over recent years to below 40 per cent, compared to earlier periods when the local content of engineering construction related to LNG was reported to be well above 60 per cent
- The direct impact on manufacturing employment is 91,300 fewer jobs
- The net direct impact on industry output is negative \$58 billion.<sup>66</sup>

- 3.16** Additionally, the AWU noted a number of examples where manufacturing investment has been delayed or moved offshore because of gas supply uncertainty. This included Incitec Pivot’s recent decision to establish an A\$940 million ammonia plant in Louisiana, USA, rather than in Australia with a primary reason being access to competitively priced gas.<sup>67</sup> Incitec Pivot

<sup>63</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 8.

<sup>64</sup> Submission 19, NSW Government, p 2.

<sup>65</sup> Submission 17, AGL Energy Limited, p 2.

<sup>66</sup> Submission 35, Australian Workers Union, pp 7-8.

<sup>67</sup> Submission 35, Australian Workers Union, p 8.

is an Australian company that manufactures a range of industrial chemicals, fertilisers and explosives.<sup>68</sup>

**3.17** The following two case studies referencing CSR Limited and Brickworks Limited, two Sydney-based manufacturing companies, further illustrate the potential impacts on the manufacturing industry of declining gas availability.

### **Case study: CSR Limited**

CSR Limited is an ASX listed company operating in Australia and New Zealand and headquartered in Sydney. The company employs 3,000 people and has over 70 manufacturing and distribution facilities throughout Australia producing building products. CSR to a large extent is reliant on gas in its manufacturing processes. The company has expressed concern regarding the impact looming gas availability pressures may have on its business.

Ms Marion Johnston, Group Treasurer, CSR Limited, argued that the high operating costs of the Queensland LNG export facilities means that the project operators will seek to obtain as much gas as they possibly can to sell overseas thereby creating significant domestic supply pressures:

CSR is extremely concerned about the availability of gas in New South Wales and eastern Australia generally from 2016 onwards, not only because of the high volume of gas already earmarked for export but also because the high fixed-cost nature of gas export facilities will see a strong drive towards ensuring that they operate at full capacity and therefore consume every available molecule of gas. This causes us to be very concerned about the structure of the domestic gas industry and market.

The committee was told that CSR's expectation is that from 2015 onwards, gas prices for Australian businesses will double and that based on Australian Energy Market Operator forecasts there may be insufficient gas to supply the New South Wales market reliably in the short-term.

CSR asserted that New South Wales needs new sources of gas supply as quickly as possible but recognised that any additional gas will not become available in time to solve short-term supply and pricing pressures. The company argued that if the state's gas resources are to be developed then mechanisms must be implemented to ensure that some of it is allocated for domestic purposes and not sold on international markets via the Queensland LNG export projects.

CSR expressed its belief that Australia can have a successful export LNG industry as well as a successful manufacturing base. However, CSR also argued that the right regulatory model has not yet been developed to 'prevent manufacturing becoming a casualty of the LNG expansions and the consequent energy insecurity'.

Citing the example of its glass furnace, Ms Johnston stressed that in the absence of competitively priced gas some of CSR's manufacturing outputs would have to close: '[I]f a glass furnace closes it closes forever. It does not reopen in Australia'.

(Sources: submission 12, CSR Limited; evidence, Ms Marion Johnston, Group Treasurer, CSR Limited, 2 February 2015).

<sup>68</sup> Incitec Pivot, 'About Us', accessed 12 February 2015, <http://www.incitecpivot.com.au/>.

**Case study: Brickworks Limited**

Brickworks Limited is a group of Australian-owned companies that manufacture and distribute clay and concrete building products. The company is headquartered in Sydney and has over 1,400 employees.

Many of Brickworks' manufacturing processes are energy intensive, and despite ongoing energy efficiency improvements and increasing use of alternative fuels, the company is negatively exposed to the constrained gas supply besetting New South Wales. Brickworks asserted that rising gas prices due to high international demand and tight supply make it increasingly difficult for it to operate its business efficiently in New South Wales.

Brickworks believe that the domestic gas price is already comparable to the netback price (the international price less transmission costs) and argued that as well as price rises, the burgeoning gas export industry has resulted in domestic users being unable to secure long-term gas supply contracts.

In contrast, purchasers in Japan, China and Korea have been able to secure 20 year gas supply contracts from Australian producers.

Brickworks emphasised the importance of increasing gas supply in New South Wales and identified a number of potential means by which to achieve this:

- promote competition and new market entrants
- incentivise gas titleholders to bring their gas to the market in an expeditious manner
- facilitate greater pricing transparency
- encourage research and development and review approval processes pertaining to the use of alternative fuels.

(Source: submission 9, Brickworks).

**Indigenous gas supply**

**3.18** Minister Roberts' assertion that the development of an indigenous New South Wales gas industry would address the state's looming supply pressures was supported by a number of other inquiry participants.

**3.19** For example, Mr James Baulderstone, Vice-President Eastern Australia, Santos, argued that a failure to develop New South Wales indigenous gas reserves would result in energy insecurity, continuing price volatility and the state missing out on petroleum royalties:

New South Wales has the ability to become self-sufficient in natural gas requirements for decades if it takes the opportunity to develop its own natural gas resources. Alternatively, failing to develop these resources will result in less secure energy supply, higher and more volatile gas prices for New South Wales families and businesses into the future, and will cost the State jobs and royalties which will deliver roads, schools and health care particularly in regional New South Wales.<sup>69</sup>

<sup>69</sup> Evidence, Mr James Baulderstone, Vice-President Eastern Australia, Santos, 28 January 2015, p 27.

**3.20** According to Mr Baulderstone another advantage of having an indigenous gas supply is that the closer production is to demand centres, the smaller the costs incurred by transportation will be:

[L]ocally produced gas has such a significant advantage, because transporting gas 400 kilometres from northern New South Wales versus transporting it thousands of kilometres from either Victoria, Queensland or even Northern Territory will add \$1, \$2, \$3, \$4 per gigajoule to the price of gas in this State.<sup>70</sup>

**3.21** Mr Baulderstone also stated that he had spoken with manufacturing companies who had expressed interest in establishing operations in New South Wales if they could access competitively priced gas from a local source. To illustrate his point he cited the recent growth of manufacturing in the United States and asserted that it has been underpinned by increased gas supply:

I have been meeting over the last two weeks with a number of manufacturers who would like to move to New South Wales to build facilities here. They are seeing the experience in the US where increased gas has led to a revolution in the manufacturing industry. Hundreds of thousands of new manufacturing jobs in the US have been created off the back of new gas supplies. That can happen in New South Wales if we have competitively priced gas...[Y]ou are always at an advantage if you can have your energy source as close to your plant as possible<sup>71</sup>

**3.22** The NSW Business Chamber argued that if New South Wales is to achieve energy security and guarantee supply for the state's businesses then it must develop its own gas reserves.<sup>72</sup>

**3.23** Mr Paul Fennelly, Chief Operating Officer, Eastern Region, Australian Petroleum Production and Exploration Association (APPEA), advised that AEMO estimates show that New South Wales has 85,000 petajoules of undeveloped gas resources and that state's current demand is just over 150 petajoules per year.<sup>73</sup>

**3.24** According to Mr Fennelly, based on the AEMO figures and future demand projections, New South Wales has something approaching 'the order of 500 years of supply'.<sup>74</sup>

**3.25** Mr Fennelly also argued that if the policy constraints on coal seam gas (CSG) development in New South Wales were lifted downward pressure would be placed on prices.<sup>75</sup>

### **Narrabri and Gloucester projects**

**3.26** New South Wales hosts two significant prospective CSG production sites which according to industry analysis would have the capacity to make-up for the anticipated gas shortages from

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<sup>70</sup> Evidence, Mr Baulderstone, 28 January 2015, p 30.

<sup>71</sup> Evidence, Mr Baulderstone, 28 January 2015, pp 29-30 and p 36.

<sup>72</sup> Submission 25, NSW Business Chamber, pp 3-4.

<sup>73</sup> Evidence, Mr Paul Fennelly, Chief Operating Officer, Eastern Region, Australian Petroleum Production and Exploration Association, 2 February 2015, p 61.

<sup>74</sup> Evidence, Mr Fennelly, 2 February 2015, p 71.

<sup>75</sup> Evidence, Mr Fennelly, 2 February 2015, p 72.

2017 if they did proceed to production. The sites are at Narrabri which is operated by Santos and at Gloucester which is operated by AGL.

- 3.27** Santos asserted that its Narrabri project ‘has the potential to supply up to 200 terajoules of natural gas per day, or up to half of NSW’s natural gas needs’. Santos advised that gas produced at Narrabri ‘will be made available for the NSW market’.<sup>76</sup>
- 3.28** AGL predicted that its Gloucester project could supply 15 per cent of the state’s gas demand and claimed that it would ‘reduce wholesale gas prices in Sydney by 8 per cent in 2025’. AGL also stated that ‘all gas from Gloucester is for NSW and will not be exported’.<sup>77</sup>
- 3.29** To support its prediction regarding decreasing prices in New South Wales, AGL referred to ACIL Allen research which attempted to quantify the economic benefits of CSG development at Gloucester by comparing two different scenarios. The first scenario assumed no further CSG production. The second scenario assumed that AGL’s Gloucester project goes ahead and produces 22.6 petajoules (approximately 15 per cent of the state’s gas demand) per annum from 2017. AGL advised that the research showed that the AGL Gloucester project would by 2025, reduce wholesale gas prices by eight per cent when compared with the no production scenario.<sup>78</sup>
- 3.30** Some inquiry participants questioned the likelihood of gas production companies allocating gas to the New South Wales market when higher prices are on offer internationally. Issues relevant to the regulatory means by which the NSW government will seek to ensure that the state’s CSG reserves will be made available to the New South Wales market, should CSG production proceed, are considered in chapter 4.

### **Price uncertainty**

- 3.31** In contrast to the ACIL Allen analysis and the argument presented by industry that increased domestic supply would place downward pressure on prices, the Independent Pricing and Regulatory Tribunal (IPART) found that ‘it is unclear how the development of coal seam gas reserves in NSW might affect domestic gas prices’.<sup>79</sup>
- 3.32** The IPART also argued that other factors, such as domestic and international demand as well as LNG export capacity, would be more influential in shaping gas prices:

At least in the short-term, NSW would still be a small supplier in the context of the world gas market. In our view many other factors, for example domestic and international gas demand and the availability of LNG export capacity, would have a bigger impact on the price of gas in NSW.<sup>80</sup>

<sup>76</sup> Submission 36, Santos Limited, p 8.

<sup>77</sup> Submission 17, AGL Energy Limited, p 3.

<sup>78</sup> Submission 17, AGL Energy Limited, p 3.

<sup>79</sup> Submission 23, Independent Pricing and Regulatory Tribunal, p 3.

<sup>80</sup> Submission 23, Independent Pricing and Regulatory Tribunal, p 3.

- 3.33** Mr Matt Grudnoff, Senior Economist, The Australia Institute, also questioned whether looming supply pressures would be addressed by CSG production, which in turn would lead to decreased prices:

There are two myths that the gas industry has put up to force a sense of urgency for the approval of CSG projects in New South Wales. The first is that unless New South Wales produces more gas they will face a supply cliff which would see shortages of gas on some days for New South Wales. The second is that the higher gas prices can be mitigated by allowing more supply.<sup>81</sup>

- 3.34** Mr Grudnoff asserted that the gas industry, through developing LNG export facilities, had created the conditions under which gas prices will rise and were now seeking to take advantage of price increases via further production. He argued that because the domestic gas market is now connected to the international market, the only way New South Wales CSG production could alleviate pricing pressures would be if the development of its resources created a significant increase in global supply. However Mr Grudnoff said that the state's gas reserves are too small to have a marked impact on international prices:

The construction of six LNG trains in Gladstone in Queensland will connect the eastern Australian gas market to the rest of the world for the first time...The gas industry, having created the conditions for the price rise, is now using that price rise to push for more CSG production. The industry has claimed that more CSG production will lower gas prices. With domestic gas prices linked to world prices, increased local supply will only lower domestic prices if it also lowers world prices. The relatively small amount of additional supply that New South Wales could produce will not have a material impact on the world price and so it will not lower domestic prices.<sup>82</sup>

- 3.35** The Institute of Energy Economics and Financial Analysis also rejected the argument that increased supply from New South Wales would put downward pressure on prices. The Institute said that the development of the Queensland LNG export industry means that the eastern Australian gas market is now inexorably linked to the export parity price, namely the international price less transportation costs.<sup>83</sup>

## Potential decreases in demand

- 3.36** Running counter to the argument that New South Wales is facing looming gas shortages, some inquiry participants suggested that there will be significant reductions in demand. Such predictions differ to the AEMO's forecasts which suggest only small demand decreases.

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<sup>81</sup> Evidence, Mr Matt Grudnoff, Senior Economist, The Australia Institute, 28 January 2015, p 38.

<sup>82</sup> Evidence, Mr Grudnoff, 28 January 2015, p 38.

<sup>83</sup> Submission 13, Institute of Energy Economics and Financial Analysis, p 1.

### Demand decrease projections

- 3.37** The AEMO has forecast decreasing gas demand in New South Wales. In its *National Gas Forecasting Report* released in December 2014 the AEMO projected that in 2014-2019 total gas consumption in New South Wales will fall by 1.8 per cent.<sup>84</sup> The AEMO has also projected:
- industrial gas consumption to decrease at an average annual rate of 2.6 per cent, driven by industrial closures
  - gas-powered generation to decline at an average annual rate of 6.2 per cent, driven by rising gas prices that reduces its competitiveness relative to other energy generators in the National Electricity Market.<sup>85</sup>
- 3.38** Reasons identified by the AEMO for declining consumer gas demand include warmer winters, declining use attributable to price increases and savings from federal energy efficiency programs. The closure of the Clyde oil refinery was identified as the primary reason for declining industrial gas demand.<sup>86</sup>
- 3.39** In contrast to the AEMO forecasts of a small decrease in demand, analysis was presented by the University of Melbourne Energy Institute (the Institute) that predicted a scenario in which there would be a much more significant decrease in gas demand.<sup>87</sup>
- 3.40** The Institute's report was cited by both the Lock the Gate Alliance and the Australia Institute as evidence that there will not be a gas shortage but instead a significant reduction in demand caused by price increases.<sup>88</sup>
- 3.41** The Institute, in its paper entitled, *The dash from gas – could demand in New South Wales fall to half?* (released on 28 January 2015) created, at the request of The Australia Institute, a scenario whereby demand for gas in New South Wales will not increase in line with population and economic growth, but rather demand will decline to 'approximately half of the level seen over the last few years.'<sup>89</sup>
- 3.42** The Institute's a priori assumption was that there was no increase in supply of gas exclusively reserved for domestic consumers, and demand would decrease due to price increases attributable to the development of Queensland's LNG export industry:

<sup>84</sup> Australian Energy Market Operator, 19 December 2014, 'National Gas Forecasting Report 2014 – Chapter 4. New South Wales Forecasts', p 25 accessed 3 February 2015, <http://www.aemo.com.au/Gas/Planning/Forecasting/National-Gas-Forecasting-Report>.

<sup>85</sup> Australian Energy Market Operator, 19 December 2014, 'National Gas Forecasting Report 2014 – Chapter 4. New South Wales Forecasts', p 25 accessed 3 February 2015, <http://www.aemo.com.au/Gas/Planning/Forecasting/National-Gas-Forecasting-Report>.

<sup>86</sup> Australian Energy Market Operator, 19 December 2014, 'National Gas Forecasting Report 2014 – Chapter 4. New South Wales Forecasts', p 25 accessed 3 February 2015, <http://www.aemo.com.au/Gas/Planning/Forecasting/National-Gas-Forecasting-Report>.

<sup>87</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*

<sup>88</sup> Evidence, Ms Carmel Flint, Campaign Coordinator, Lock the Gate Alliance, 28 January 2015, p 16; and evidence, Mr Matt Grudnoff, 28 January 2015, p 38.

<sup>89</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*, p 17.

Wholesale gas prices in eastern Australia are forecast to increase at an unprecedented pace – doubling and even tripling – as a result of imminent coal seam gas exports to Asia from Gladstone, Queensland. Rising gas prices will dampen domestic gas demand across NSW and the other eastern states.<sup>90</sup>

**3.43** Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, identified further reasons to support the Institute’s scenario that included:

- rising gas prices make gas uncompetitive with coal for electricity generation
- increases in the energy efficiency of non-gas powered home appliances – for example, reverse cycle air conditioners are more efficient and cheaper than gas heaters and provide households with the incentive to switch products
- increasing environmental awareness which has led to an uptake in renewable energy products such as solar PV
- rising gas prices will drive some gas intensive manufacturing companies out of business and cause others to scale back on their gas use either by improving energy efficiency or by switching fuels to electricity bioenergy or coal.<sup>91</sup>

**3.44** Working on the a priori assumption, the Institute countered the argument that additional New South Wales gas must be developed to address looming supply shortages. The Institute claimed that gas requirements are being overestimated which could lead to an overinvestment in network infrastructure, the capital costs of which would be passed onto consumers:

Investments in gas supply infrastructure are based on estimates of future demand. If demand is overestimated, unnecessary infrastructure is built. Such poor investment decisions drive up the costs that small and large gas consumers must pay.<sup>92</sup>

**3.45** There is a significant discrepancy between the AEMO forecasts showing a small decrease in demand and the University of Melbourne Energy Institute’s scenario that demand could fall by half. In response to questioning on this issue, Mr Forcey stated that AEMO recently revised their forecast downwards by 17 per cent and argued that if this was to happen again it would bring AEMO’s projections closer to the Institute’s:

[I had a] look at what they had in the past versus now...AEMO has reduced their forecast by 17 per cent. So if they do that a couple more times they will be coming pretty close to what we have got here in this University of Melbourne scenario.<sup>93</sup>

**3.46** Mr Forcey also claimed that the AEMO had acknowledged information which shows that the use of gas in energy generation is declining but had not factored this into their analysis. He argued that if they had it would have resulted in a lower forecast:

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<sup>90</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*, p 4.

<sup>91</sup> Evidence, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, 28 January 2015, pp 50-51.

<sup>92</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*, p 4.

<sup>93</sup> Evidence, Mr Forcey, 28 January 2015, p 52.

Why is it so much different? Even AEMO is a bit inconsistent in what they publish because they publish electricity planning information and there they are really saying that there is not going to be much gas used for electricity generation...They have not really reflected that, even in the recent gas publication...[I]f I look at their electricity stuff they are saying no gas for power generation, which would bring their forecast down even further.<sup>94</sup>

### Supply pressures vs. demand decreases: The NSW Government's position

- 3.47** As outlined above, two conflicting arguments regarding the future of the New South Wales gas market were put to the committee. Firstly, that the state is facing looming gas supply shortages and that an indigenous gas source is needed to secure supply for New South Wales and put downward pressure on prices. Secondly, that the demand for gas will significantly decrease as consumers and industry alike adjust to increased gas prices, which will rise regardless of whether there is an indigenous supply, by seeking alternate forms of energy.
- 3.48** As noted earlier, Minister Roberts made clear the NSW government's position, namely that 'an increase in domestic supply in New South Wales will do a lot to reduce [the] demand pressures'.<sup>95</sup>
- 3.49** Regarding the University of Melbourne Energy Institute's report, which was published after the Minister gave evidence to the inquiry, a spokesperson for the Minister was quoted in *The Sydney Morning Herald* as stating: 'AEMO's more comprehensive studies suggest that the risk is towards supply shortfalls. There has been no indication that the NSW government should revise its [supply] outlook'.<sup>96</sup>
- 3.50** Mr Andrew Lewis, Acting Director, Operations and Programs, NSW Department of Trade and Investment, acknowledged that demand will decline, but outlined the rationale behind the NSW government's position – namely, that if the gas coming into New South Wales is diverted to the export market then irrespective of any demand decreases there will a supply shortfall needing to be met:

What we are increasingly seeing with the development of LNG exports is that the Moomba gas—the gas out of South Australia—is being directed towards Queensland and away from not just New South Wales but also South Australia and Victoria. Whilst it is true that there is a declining demand for gas—particularly among the industrial sector and partly as a result of rising gas prices—given that Moomba supplies just under 50 per cent of New South Wales gas, if that 50 per cent is taken away we still have to find new gas supplies in order to meet the demand, whatever level it is at.<sup>97</sup>

<sup>94</sup> Evidence, Mr Forcey, 28 January 2015, p 52.

<sup>95</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 4.

<sup>96</sup> Nicole Hasham, 28 January 2015, 'University of Melbourne study says plummeting gas demand casts doubt on coal seam gas plans', *Sydney Morning Herald*, accessed 5 February 2015, <http://www.smh.com.au/nsw/university-of-melbourne-study-says-plummeting-gas-demand-casts-doubt-on-coal-seam-gas-plans-20150127-12yyi9.html>.

<sup>97</sup> Evidence, Mr Andrew Lewis, Acting Director, Operations and Programs, NSW Department of Trade and Investment, 28 January 2015, p 5.

### Committee comment

- 3.51** The committee acknowledges the two divergent arguments regarding future developments in the New South Wales gas market. We note that the NSW government is working to a scenario whereby regardless of declining demand, there will be gas supply pressures which are expected to negatively impact the state's households and businesses.
- 3.52** It is imperative that the NSW government does what it can, consistent with a market economy, to secure a reliable and affordable supply of gas for New South Wales, particularly given the important contribution it makes to the state's manufacturing businesses. To that end, the NSW government is seeking to develop the state's indigenous gas reserves in the expectation that increased supply will place downward pressure on prices thus benefiting households and businesses alike.
- 3.53** There is, however, a significant public policy controversy over the extraction of CSG in New South Wales. The report of the New South Wales Chief Scientist and Engineer, Professor Mary O'Kane in September 2014 sets out in her recommendations<sup>98</sup> a significant body of work that has not been done to date regarding substantial additional scientific research on the impacts of CSG extraction, and regulatory and legislative reform. On any analysis, the body of work she says government needs to do, without which there is no prospect of CSG being environmentally safe in New South Wales, is very substantial. This matter is discussed more fully later in this report at paragraph 4.8 and following.
- 3.54** The argument that the gas industry wants access to the state's gas reserves so that it may take advantage of higher prices on offer internationally, or use the spectre of this to simply increase price, is difficult to ignore. The committee believes that adequate safeguards must be developed to establish a competitive domestic price and guaranteed domestic supply. The measures by which this may be achieved are considered below in this section and also in chapter 4.
- 3.55** The more impartial, economic evidence before this committee leads us to favour the proposition that increased domestic supply of gas will not by itself lead to reductions in gas prices, or even a reduction in the rate of price increases. This is because the predominant driver of domestic gas prices will be the international gas price and an indigenous New South Wales gas supply would be very small in the context of the world gas market and will not impact upon the world price. This means that government regulation of the gas market will be necessary to have a significant impact on price or to guarantee domestic supply.

### Market transparency

- 3.56** A number of inquiry participants said that the gas market is opaque: they argued that no one seems to have a clear idea of how much gas is available, except for the suppliers. The lack of transparency in the gas market is a further impediment to making accurate predictions regarding supply and potential price impacts.

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<sup>98</sup> NSW Government, Chief Scientist and Engineer, *Final Report of the Independent Review of Coal Seam Gas Activities in NSW*, September 2014, accessed 19 February 2015 [http://www.chiefscientist.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0005/56912/140930-CSG-Final-Report.pdf](http://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/56912/140930-CSG-Final-Report.pdf)

### The need for greater transparency

- 3.57** A number of inquiry participants argued that the New South Wales gas market would benefit from greater transparency. For example, Minister Roberts expressed frustration regarding the tendency of gas companies to not be ‘overly forthcoming [with requested information], claiming commercial in confidence’. The Minister argued that such information should be available to legislators so that they can make informed policy decisions.<sup>99</sup>
- 3.58** The Minister compared the gas market unfavourably to the electricity market. He described electricity market as ‘what an open transparent marketplace should be’ and juxtaposed its openness to the opacity of the gas market:
- Almost immediately one can tell what [electricity] is being generated where, where it is being used, how much is being used and what sort of price it is attracting. Unfortunately, with respect to gas the market place is incredibly opaque.<sup>100</sup>
- 3.59** Mr Orton from the NSW Business Chamber informed the committee that member businesses appear to have a greater understanding of the electricity market as opposed to the gas market:
- I think one of the things we did pick up from the members that we have been talking to is that they know a lot less about the gas market than they do about electricity markets and I think there is a fair bit of education required to help make gas consumers more demanding consumers than might currently be the case.<sup>101</sup>
- 3.60** In response to questioning regarding why the electricity market is more transparent than the gas market, Mr Tim Nelson, Head of Economic Policy and Sustainability, AGL Energy Limited, explained that the AEMO ‘has traditionally focused on electricity’. He did, however, welcome the AEMO’s first release of a national *Gas Statement of Opportunities* in 2014. Mr Nelson also emphasised that where appropriate the AEMO should circulate other information materials pertaining to the gas market so as to increase market transparency.<sup>102</sup>
- 3.61** Brickworks called for ‘enhanced transparency and a strong indication of long-term pricing expectations’. According to Brickworks there is no certainty regarding long-term gas pricing expectations and relevant information is difficult to obtain.<sup>103</sup>
- 3.62** This lack of information makes it difficult for gas dependent companies, such as Brickworks, to enter into supply contract negotiations with gas suppliers. Beset by information asymmetry (namely, where the seller knows more than the buyer), Brickworks said that it is a challenge for gas consumers to know what represents a fair price when agreeing to supply contracts with gas companies.<sup>104</sup>

<sup>99</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 2.

<sup>100</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, pp 2-3.

<sup>101</sup> Evidence, Mr Orton, 2 February 2015, p 3.

<sup>102</sup> Evidence, Mr Tim Nelson, Head of Economic Policy and Sustainability, AGL Energy Limited, 28 January 2015, p 62.

<sup>103</sup> Submission 9, Brickworks, p 8.

<sup>104</sup> Submission 9, Brickworks, p 8.

**3.63** Another factor said to be impinging on the market is that gas companies are hoarding supply in anticipation of rising prices. This matter was raised by Mr Michael Zelinsky, National Vice-President, Australian Workers Union, who criticised such conduct and argued for greater market transparency:

More transparency would certainly help in the marketplace—knowing exactly who has gas, how much, and what it is being sold for. I think that would help a great deal in this. You only have to take the example of Origin Energy, which last year very proudly stated to the market that it was going to withhold gas and wait until the price went up, essentially, before they would then sell it. From the AWU’s point of view, when we consider the economic consequences of high gas prices and the fact that those gas assets are held on behalf of the Australian people and extracted, we would submit, on behalf of the Australian people, withholding Australia’s gas in order to profiteer is unconscionable.<sup>105</sup>

**3.64** Mr Zelinsky also asserted that gas suppliers are only entering into short-term supply contracts in an apparent move keep their options open as international buyers enter the market. He stated that this is causing industry uncertainty as it is becoming more difficult for businesses to undertake forward planning:

Essentially it used to be you could get a contract for a longer period and you could make your forward planning around it, which is a normal business case...[G]as producers have no impediments on them to seek the highest price and they are offering very short-term contracts [to] businesses domestically in Australia on a take-it-or-leave-it basis...Gas producing businesses are saying, “We can sell it overseas.” [This] makes it difficult to forward plan your business but also makes it very difficult to even manage your cost base and stay competitive or open.<sup>106</sup>

**3.65** CSR was critical of the gas market’s tendency to monopolistic behaviour given a ‘handful of economic interests control almost three quarters of current reserves, while a similarly small group control almost 90 per cent of Australian gas production’.<sup>107</sup>

**3.66** CSR explained that such concentration is attributable to the high cost of investing in gas infrastructure and the relatively small size of the Australian market. According to CSR a concentrated gas market leads to a high degree of integration with little competition within the gas supply chain – in effect, where an operator controls the gas from the point it leaves the ground to the point it reaches the consumer.<sup>108</sup>

**3.67** CSR advocated for the ‘separation of resource, transport, and commercial activities [as it] is a pre-requisite to the development of vibrant and competitive markets’.<sup>109</sup> To support its call for less vertical integration, CSR referred to a report undertaken by the International Energy

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<sup>105</sup> Evidence, Mr Michael Zelinsky, National Vice-President, Australian Workers Union, 2 February 2015, p 16.

<sup>106</sup> Evidence, Mr Zelinsky, 2 February 2015, p 15.

<sup>107</sup> Submission 12, CSR Limited, p 4.

<sup>108</sup> Submission 12, CSR Limited, p 4.

<sup>109</sup> Submission 12, CSR Limited, p 4.

Agency, the OECD's energy policy body, that argued a key to achieving competition within gas markets is creating 'less vertically integrated energy companies'.<sup>110</sup>

- 3.68 The Public Interest Advocacy Centre (PIAC) noted that there 'are only four gas retailers in New South Wales' and citing St Vincent de Paul Society analysis advised that the pricing differences between the retailers are minimal. PIAC contended that 'there may be insufficient competition in the retail gas market'.<sup>111</sup>

### Government initiatives to increase transparency

- 3.69 To achieve greater transparency and increase supply the *NSW Gas Plan* indicates the NSW government is going to:

- request that gas companies voluntarily disclose information about their gas supply arrangements and make such information public
- implement by the end of 2015 a 'use it or lose it' policy requiring current gas licence holders to commit to developing their resource or risk losing their title.<sup>112</sup>

- 3.70 The NSW government's intention to adopt a 'use it lose policy' was welcomed by a number of industrial companies including Brickworks and CSR.<sup>113</sup>

- 3.71 Mr Lewis from the NSW Department of Trade and Investment informed the committee that through the processes of the Council of Australian Governments' (COAG) Energy Council,<sup>114</sup> the NSW government has been working with the Australian Energy Market Commission (AMEC) to improve the 'rules around how the gas market operates, to try and increase transparency and openness and get greater visibility of what is happening within the east coast gas market'.<sup>115</sup>

- 3.72 One initiative was the 2008 establishment of the National Gas Bulletin Board which shows the gas flows on any given day across eastern Australia. Mr Steve Davies, National Policy Manager, Australian Pipeline Industry Association (APIA), advised that the Bulletin Board is published daily and 'shows how much gas is flowing on each major pipeline in eastern

<sup>110</sup> Correspondence from Ms Marion Johnston, Group Treasurer, CSR Limited, received 11 February 2015, enclosing International Energy Agency, 2013, *Developing a Natural Gas Trading Hub in Asia*, p 32.

<sup>111</sup> Submission 33, Public Interest Advocacy Centre, p 4.

<sup>112</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 6 and p 13.

<sup>113</sup> Submission 9, Brickworks, p 9.

<sup>114</sup> The Council of Australian Governments' Energy Council seeks to ensure the safe, prudent and competitive development of the nation's mineral and energy resources and markets to optimise long-term economic, social and environmental benefits to the community. Its membership comprises Commonwealth, State, Territory and New Zealand Ministers with responsibility for energy and resource matters.

<sup>115</sup> Evidence, Mr Lewis, 28 January 2015, p 3.

Australia, how much gas is being processed at each major gas processing facility in Australia every day'.<sup>116</sup>

- 3.73** Mr Davies informed the committee that the Bulletin Board does not publish information detailing the total amount of supply in the system.<sup>117</sup> He argued that gas market participants would benefit if they were able to access information which showed how much gas is available for exchange:

I think there is benefit in knowing about total quantities in aggregate in terms of pipelines, so if there is available capacity for contract the association has proposed that that could be something useful to be published on the Bulletin Board so that there is one place where every gas market observer could see what capacity is available for contract.<sup>118</sup>

- 3.74** Mr Davies also advised that while the Bulletin Board provides daily updates regarding the volume of gas moving through the pipelines, the National Electricity Market provides network updates every five minutes.<sup>119</sup>

- 3.75** Another initiative implemented under the auspices of the COAG Energy Council was the development of the Short-Term Trading Market (STTM) which became operational in 2010-2011. The STTM is a wholesale market designed to facilitate short-term gas trading using market-driven daily prices.<sup>120</sup>

- 3.76** The purpose of the STTM is to allow participants to trade gas supply imbalances that arise when actual demand differs from their contracted supply. It enables retailers and other large customers to purchase gas from the market without having to enter into long-term contracts with pipeline providers or gas producers.<sup>121</sup>

- 3.77** The STTM operates at demand hubs, located in Adelaide, Sydney and Brisbane. The hubs are transfer points through which gas is transmitted and then delivered to the distribution networks.<sup>122</sup> The STTM is overseen by the AMEC in accordance with the National Gas Law, which sets out the legislative and regulatory framework for Australia's gas markets.<sup>123</sup>

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<sup>116</sup> Evidence, Mr Steve Davies, National Policy Manager, Australian Pipeline Industry Association, 2 February 2015, p 34.

<sup>117</sup> Evidence, Mr Davies, 2 February 2015, p 34.

<sup>118</sup> Evidence, Mr Davies, 2 February 2015, p 34.

<sup>119</sup> Evidence, Mr Davies, 2 February 2015, p 34.

<sup>120</sup> Australian Energy Market Operator, 'Short Term Trading Market', accessed 9 February 2015, <http://www.aemo.com.au/About-the-Industry/Energy-Markets/Short-Term-Trading-Market>.

<sup>121</sup> Australian Energy Market Operator, 'Short Term Trading Market', accessed 9 February 2015, <http://www.aemo.com.au/About-the-Industry/Energy-Markets/Short-Term-Trading-Market>.

<sup>122</sup> Australian Energy Market Operator, 'Short Term Trading Market', accessed 9 February 2015, <http://www.aemo.com.au/About-the-Industry/Energy-Markets/Short-Term-Trading-Market>.

<sup>123</sup> NSW Parliamentary Library Research Service, A tightening gas market: supply, demand and price outlook for NSW, Background Paper No 4, (2014), p 2.

- 3.78** Mr Lewis stated that the STTM seeks ‘to try and put greater transparency into the pricing and availability of gas’. He observed that the STTM was still being developed and added that ‘there is always room for improvement and to get more detail and information’ into the system.<sup>124</sup>
- 3.79** Ms Johnston from CSR commented positively on the effectiveness of hub pricing through the STTM but argued that there is currently insufficient market information about gas supply volumes to facilitate investment confidence:

The most effective market is one that operates on hub pricing—it is transparent to everybody...You know your pricing and you can have confidence when investing...To have confidence in investing in this country we need to understand how much gas we have available. At the moment we cannot be confident about that. We need to know how much gas there is, who has it and where it is.<sup>125</sup>

### Committee comment

- 3.80** Access to information is a critical precursor to ensuring the effective operation of markets. The committee is concerned that the National Gas Bulletin Board does not provide information on the available supply, only how much gas is moving through the system at any given time. This places gas purchasers at a distinct disadvantage when negotiating supply contracts with gas producers. It is difficult to know what constitutes a fair price for a supply contract when one does not know the level of supply within a market.
- 3.81** The committee acknowledges that the NSW government has, via the *NSW Gas Plan*, sought to create greater market certainty by requesting that gas companies *voluntarily* disclose information about their gas supply arrangements and make such information public. The committee believes that while this is a positive first step, it does not go far enough.
- 3.82** Given that the vast majority of the gas traded into New South Wales comes from interstate, the state’s purchasers of gas should be better informed as to the total volume of gas available in the eastern Australian gas market. The greater the information that is available to gas purchasers the more confident they can be in their purchasing decisions. The National Gas Bulletin Board is the most appropriate vehicle by which to make supply information available.
- 3.83** The committee therefore recommends that the Minister work with the COAG Energy Council to have information detailing the amount of gas available for purchase included on the National Gas Bulletin Board.

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### Recommendation 1

That the Minister for Resources and Energy, through the Council of Australian Governments’ Energy Council, seek to have information detailing the amount of gas available for purchase included on the National Gas Bulletin Board.

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<sup>124</sup> Evidence, Mr Lewis, 28 January 2015, p 3.

<sup>125</sup> Evidence, Ms Johnston, 2 February 2015, p 24.

- 3.84** The committee also received evidence regarding the operation of the National Electricity Market and how it is facilitating a much greater degree of information for purchasers, providing network updates every five minutes. This is vital to ensuring competitive wholesale prices for electricity across Australia.
- 3.85** The committee recommends that the Minister work with other jurisdictions to create a gas market equivalent of the National Electricity Market. We also recommend an audit of all regulatory tools available to the NSW government to improve transparency and openness in the gas market in New South Wales and Australia.

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**Recommendation 2**

That the Minister for Resources and Energy:

- through the Council of Australian Governments' Energy Council, seek to create a gas market equivalent of the National Electricity Market
  - undertake an audit of all regulatory tools available to the NSW Government to improve transparency and openness in the gas market in New South Wales and Australia.
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- 3.86** Regarding the commercial conduct of gas companies, it was disappointing to hear claims that gas companies are withholding supply in anticipation of higher prices becoming available in international markets. Even if unfounded these claims are perhaps not surprising given the lack of available information about supply. It is important that measures are taken to improve transparency, as in Recommendations 1 and 2, and to prevent potential supply hoarding.
- 3.87** We note that the NSW government has committed to implementing its 'use it or lose it' policy by the end of 2015. This is an important measure in seeking to avert gas supply withholding and encourage production. The committee urges the NSW government to take whatever actions are necessary to ensure that it meets its commitment to implement the 'use it or lose it' policy by the end of 2015.

## Chapter 4 Achieving energy security and affordability

This chapter considers means to achieve energy security and affordability in New South Wales, in particular, by an Australia-wide gas reservation policy, as well as alternative energy sources. The impact of oil refinery closures on energy security in New South Wales is also discussed.

### Expanding indigenous gas supply in New South Wales

- 4.1** As outlined in Chapter 3, the eastern Australian gas market is changing leading to uncertainty as to where New South Wales will source its gas supply and at what price.
- 4.2** Many inquiry participants, including the NSW Government, supported the state developing its own gas resources as a strategy to address any potential gas supply shortage and corresponding price increase.<sup>126</sup> As discussed in Chapter 2, indigenous gas resources in New South Wales consist largely of unconventional gas in the form of coal seam gas (CSG). As discussed in Chapter 3, the committee does not accept the argument that progressing the state's coal seam gas industry, by itself, will lead to any meaningful reduction in the domestic gas price.
- 4.3** The terms of reference for this inquiry concern the supply and affordability of gas in New South Wales. As such, the Inquiry has not focused on the debate regarding the impacts of CSG activity, but rather, its capacity to address potential supply and pricing issues.

### NSW Gas Plan

- 4.4** The NSW government outlined its strategy to progress the state's gas industry in its *NSW Gas Plan* (the plan) released in November 2014. The plan states that the government's key objective in relation to gas supply is 'to secure, reliable, affordable and sustainable [gas] supplies for NSW households and businesses'.<sup>127</sup> To that end, the *NSW Gas Plan* sets out a number of actions the government will undertake to achieve this objective. These actions include:
- maintaining the freeze on the issuing of gas exploration licences and extinguishing all current licence applications via a one-off government buy back<sup>128</sup>
  - introducing a new Strategic Release Framework to control the release of gas exploration areas from 1 July 2015 – the framework will involve an assessment of the economic, environmental and social factors pertaining to proposed exploration projects<sup>129</sup>
  - appointing the Environment Protection Authority (EPA) as the lead regulator for gas exploration and production<sup>130</sup>

<sup>126</sup> For examples see: Submission 1, Weston Aluminum Pty Ltd, p 2; Submission 3, Energy Resource Information Centre, p 3; Submission 9, Brickworks, p 6; Submission 17, AGL Energy Limited, p 1; Submission 21, Australian Petroleum Production and Exploration Association, p 1; Submission 28, APA Group, p 8; Submission 36, Santos Limited, p 3.

<sup>127</sup> Submission 19, NSW Government, p 1.

<sup>128</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 4.

<sup>129</sup> Submission 19, NSW Government, p 2.

- requesting that gas companies voluntarily disclose information about their gas supply arrangements and make such information public<sup>131</sup>
- supporting households and businesses to use gas more efficiently to help reduce their bills and relieve pressure on overall gas supplies<sup>132</sup>
- implementing a ‘use it or lose it’ policy requiring current gas licence holders to commit to developing their resource or risk losing their title<sup>133</sup>
- drafting legislation to ensure that landholders who host gas development receive compensation for exploration and production.<sup>134</sup>

**4.5** Another undertaking in the *NSW Gas Plan* is to ensure that landholders and communities benefit from gas exploration and production. To achieve this, the *NSW Gas Plan* sets out a number of actions.

- Legislation will be introduced to ensure landholders receive compensation for exploration and production.
- The Independent Pricing and Regulatory Tribunal (IPART) will be commissioned to provide annual benchmark compensation rates to assist landholders to negotiate appropriate compensation for CSG activity on their land.
- A Community Benefits Fund will be established where gas companies and the NSW Government can make voluntary contributions.<sup>135</sup>

**4.6** In evidence, the Hon Anthony Roberts MP, Minister for Energy and Resources, advised that the NSW government views the plan as a ‘critical first step to securing our gas supplies as well as protecting our natural resources and ensuring a stronger outlook for New South Wales gas users’.<sup>136</sup>

**4.7** Through the plan, the government has made a commitment to accept all the recommendations contained in the final report of the *Independent Review of Coal Seam Gas Activities in NSW*, released in September 2014.<sup>137</sup>

**4.8** The report was prepared by the state’s Chief Scientist and Engineer, Professor Mary O’Kane. In 2013 Professor O’Kane was directed by the former Premier, the Hon Barry O’Farrell MP,

<sup>130</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 11.

<sup>131</sup> Submission 19, NSW Government, p 2.

<sup>132</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 6.

<sup>133</sup> Submission 19, NSW Government, p 2.

<sup>134</sup> NSW Government, *NSW Gas Plan*, accessed 13 January 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 12.

<sup>135</sup> NSW Government, *NSW Gas Plan*, accessed 13 February 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 12.

<sup>136</sup> Evidence, the Hon. Anthony Roberts MP, Minister for Resources and Energy, 28 January 2015, p 12.

<sup>137</sup> NSW Government, *NSW Gas Plan*, accessed 11 February 2015, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>, p 7.

to conduct a review of CSG activities. The final report contained 16 recommendations and a number of findings. The key conclusion was that the challenges and risks associated with CSG activities can generally be managed through a number of measures. The report stated:

Having considered all the information from these sources and noting the rapid evolution of technological developments applicable to CSG from a wide range of disciplines, the Review concluded that the technical challenges and risks posed by the CSG industry can in general be managed through:

- careful designation of areas appropriate in geological and land-use terms for CSG extraction
- high standards of engineering and professionalism in CSG companies
- creation of a State Whole-of-Environment Data Repository so that data from CSG industry operations can be interrogated as needed and in the context of the wider environment
- comprehensive monitoring of CSG operations with ongoing automatic scrutiny of the resulting data
- a well-trained and certified workforce, and
- application of new technological developments as they become available.<sup>138</sup>

**4.9** The Chief Scientist's recommendations 3-16 are outlined below.

**Independent Review of Coal Seam Gas Activities in NSW: Recommendations 3-16**

3. Strengthened protections and benefits for land owners around access, valuation and compensation;
4. Recovery of full cost to government of regulation and support of the CSG industry, reported through the State Budget process;
5. The development and designation of areas where CSG activity is permitted and where it is not;
6. A single Act for all onshore subsurface resources, excluding water;
7. Separation of the process for allocating rights to exploit subsurface resources from regulation of the activities to give effect to that exploitation, with a single, independent regulator;
8. A new regulatory system focussed on continually updated environmental impact and safety targets, to drive the adoption of new technology and innovation; appropriate penalties and automatic monitoring systems that detect cumulative environmental impacts;
9. The development of insurance arrangements to cover short and long-term environmental damage;
10. The development of an open, interactive Whole-of-Environment Data Repository for all State environmental data associated with water management, gas extraction, mining, manufacturing, and chemical processing activities;
11. A centralised Risk Management and Prediction Tool for all extractive industries in NSW, to be used to assess compliance and new proposals;
12. A Standing Body of Experts from across relevant disciplines to advise Government on the overall impact of CSG through a published Annual Statement;
13. CSG extraction proponents to identify impacts on water resources, pathways, consequences and likelihood, baseline conditions and risk triggers prior to any activity commencement;
14. Government to ensure ongoing mandatory training, accreditation and certification for all working in the CSG industry, including compliance, inspection and audit functions;

<sup>138</sup> NSW Government, Chief Scientist and Engineer, *Final Report of the Independent Review of Coal Seam Gas Activities in NSW*, September 2014, p iv.

15. Comprehensive legacy planning to cover the full and safe decommissioning of wells and the transitioning of existing projects to the new regulatory system; and
16. Consideration of alignment of laws and regulations governing methane and other gas extraction in coal mining with laws and regulations governing CSG production.<sup>139</sup>

**4.10** Despite her conclusion that the challenges and risks associated with CSG activities can generally be managed through a number of measures, Professor O’Kane went on to say, however, that:

All of this needs to take place within a clear, revised, legislative framework which is supported by an effective and transparent reporting and compliance regime and by drawing on appropriate expert advice.<sup>140</sup>

**4.11** It is the development of this regulatory and legal framework that is set out in her recommendations 3-16. Even while she concluded that the challenges and risks associated with CSG activities can generally be managed, Professor O’Kane warns:

...the detailed hydrogeology is not yet fully characterised, there could be unexpected events, learnings, or even accidents. This is common for new applications in the extractive industries ... It also highlights the need to record and capitalise on the data and knowledge gained from CSG extraction activities in new regions and to take advantage of new technology developments which, if harnessed appropriately, **can** make CSG production **increasingly safer** and more efficient **over time**.” (Emphasis added)<sup>141</sup>

**4.12** When appearing before the committee, Minister Roberts repeated the NSW government’s commitment to implement all the Chief Scientist’s recommendations:

The Government is working through the New South Wales Gas Plan to implement all of the Chief Scientist’s recommendations and make sure any onshore gas industry develops under our terms.<sup>142</sup>

**4.13** Minister Roberts was also asked to provide an update on the NSW government’s implementation of the recommendations of the Chief Scientist and the timeframes for their full implementation.<sup>143</sup> The answer, provided on notice, failed to provide any timeframe for the implementation of the Chief Scientist’s recommendations.<sup>144</sup>

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<sup>139</sup> NSW Government, Chief Scientist and Engineer, *Final Report of the Independent Review of Coal Seam Gas Activities in NSW*, September 2014, pp 12-15.

<sup>140</sup> NSW Government, Chief Scientist and Engineer, *Final Report of the Independent Review of Coal Seam Gas Activities in NSW*, September 2014, p iv.

<sup>141</sup> NSW Government, Chief Scientist and Engineer, *Final Report of the Independent Review of Coal Seam Gas Activities in NSW*, September 2014, p iv.

<sup>142</sup> Evidence, the Hon. Anthony Roberts MP, 28 January 2015, p 14.

<sup>143</sup> Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 14.

<sup>144</sup> Answers to questions on notice, NSW Government, 6 February 2015, p 2.

**Committee comment**

- 4.14** The committee finds that what Professor O’Kane provides in her report is a narrative road map, not a detailed, scientific plan of how to achieve the outcomes she says are needed. It is worth noting that while some have claimed the Chief Scientist says the CSG industry can be operated safely, this is clearly in the context of her recommendations being implemented *in full* and *before* the industry is pursued further.
- 4.15** The committee notes that the Minister did not provide timeframes for the full implementation of the Chief Scientist’s recommendations. The committee finds this response unhelpful and casts doubt on the commitment of the NSW government to implement the report of the Chief Scientist.
- 4.16** In the committee’s view, the report of the Chief Scientist is hardly a ringing endorsement of CSG or even a real claim it can be pursued safely and without harm to our precious water resources, environment and farming lands. That committee finds that the NSW government must fully implement the Chief Scientist’s report before any expansion of the CSG industry in New South Wales is contemplated.

**Recommendation 3**

That the New South Wales Government fully implement the Chief Scientist and Engineer’s *Final Report of the Independent Review of Coal Seam Gas Activities in NSW* (September 2014) before any expansion of the coal seam gas industry in New South Wales is contemplated.

**Domestic gas reservation policy**

- 4.17** Another strategy to address energy security and affordability raised during the inquiry was the introduction of a domestic gas reservation policy. Domestic gas reservation is a strategy whereby a proportion of gas produced is quarantined for the domestic market.<sup>145</sup>
- 4.18** Some regard gas reservation policies as a means to facilitate energy security and maintain affordable prices for gas.<sup>146</sup> Others argue that such policies may reduce investment in the gas industry which leads to declining supply and in turn increased gas prices.<sup>147</sup>
- 4.19** The *NSW Gas Plan* does not include a reservation policy. Presently Western Australia and Queensland are the only states that have provision for some form of gas reservation policy.<sup>148</sup>

<sup>145</sup> NSW Parliamentary Library Research Service, *Gas: resources, industry resources and domestic reservation policies*, Background Paper No 12, (2013), p 53.

<sup>146</sup> Evidence, Mr Michael Zelinsky, National Vice-President, Australian Workers Union, 2 February 2015, p 13.

<sup>147</sup> Evidence, Mr Paul Fennelly, Chief Operating Officer, Eastern Region, Australian Petroleum Production and Exploration Association, 2 February 2015, p 61.

<sup>148</sup> NSW Parliamentary Library Research Service, *Gas: resources, industry resources and domestic reservation policies*, Background Paper No 12, (2013), p 53.

### Reservation policies across Australia

- 4.20** Western Australia's gas reservation policy aims to secure domestic gas commitments of up to 15 per cent of LNG production from each export gas project. It is a condition of access to the state's land for the establishment of LNG processing facilities. Western Australia conducts individual negotiations with each LNG project operator regarding the method by which they will meet their domestic gas commitments.<sup>149</sup>
- 4.21** The main objective of Western Australia's gas reservation policy is to 'ensure secure, affordable domestic gas supply to meet [the state's] long term energy needs and to sustain economic growth, development and value adding investment'.<sup>150</sup>
- 4.22** The Australian Petroleum Production and Exploration Association (APPEA) criticised Western Australia's gas reservation policy by citing a report prepared by the state's Economic Regulatory Authority. The report found that 'the costs the policy imposes on the Western Australian economy far outweigh any benefits that it is believed to have'. A key concern for APPEA was their assertion that Western Australia's reservation policy 'discourages investment in gas projects'.<sup>151</sup>
- 4.23** Conversely, the Australian Workers Union commented positively on the Western Australian gas reservation policy stating: 'WA currently operates a successful reservation policy of 15 per cent. This has been in place since 2006 and has not deterred investment in LNG (\$88 billion invested since 2006)'.<sup>152</sup>
- 4.24** Queensland also has a gas reservation policy but it is currently inactive. The state may, when granting a tenement, require that gas produced from the tenement area be supplied only to the Australian market. To date no Queensland gas field has been set aside for domestic-only supply.<sup>153</sup>
- 4.25** In the other states the prevailing policy is not to support gas reservation. This position is shared by the present Australian Government and there is no national reservation policy. However, in the context of increasing supply and demand pressures some inquiry participants called for greater government intervention. For example, the gas-dependent manufacturer Berlin, Berlin, Germany CSR Limited called on governments to ensure that 'domestic users do not run short of gas or bear an exceptional cost burden'.<sup>154</sup> The Australia Institute similarly emphasised the need for government intervention to limit gas price increases and called for the introduction of a gas reservation policy or restrictions on gas exports.<sup>155</sup>

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<sup>149</sup> NSW Parliamentary Library Research Service, *Gas: resources, industry resources and domestic reservation policies*, Background Paper No 12, (2013), p 58.

<sup>150</sup> NSW Parliamentary Library Research Service, *Gas: resources, industry resources and domestic reservation policies*, Background Paper No 12, (2013), p 58.

<sup>151</sup> Submission 21, Australian Petroleum Production and Exploration Association, p 6.

<sup>152</sup> Submission 35, Australian Workers Union, p 4.

<sup>153</sup> NSW Parliamentary Library Research Service, *Gas: resources, industry resources and domestic reservation policies*, Background Paper No 12, (2013), p 63.

<sup>154</sup> Submission 12, CSR Limited, p 2.

<sup>155</sup> Submission 8, The Australia Institute, p 3.

### **A domestic gas reservation policy?**

**4.26** The NSW government rejected a gas reservation policy on the basis that the state relies on interstate imports for 95 per cent of its gas supply and, as such, is not in a position to set aside the limited gas it does produce. The NSW government also argued that a reservation policy for gas produced in New South Wales would restrict trade, discourage investment and cause development costs for future gas development to rise.<sup>156</sup>

**4.27** Minister Roberts advised that at a recent meeting of the Coalition of Australian Governments' (COAG) Energy Council a national reservation policy for the east coast gas market was discussed and 'emphatically rejected' as a solution to potential gas shortages in the eastern Australian gas market.<sup>157</sup>

**4.28** Mr Paul Fennelly, Chief Operating Officer, Eastern Region, APPEA asserted that introducing a domestic gas reservation policy for gas produced in New South Wales could worsen the possible gas shortage that New South Wales is facing because it would reduce investment in new gas production. He stated:

The idea of domestic gas reservation policy has almost universally been rejected globally throughout the free market economic for a very good reason. Gas reservation can actually worsen the very situation it is supposed to fix. Rather than generating more gas and driving down prices, reservation policy reduces investment needed to bring on new and cheaper supplies.<sup>158</sup>

**4.29** AGL Energy Limited in their submission to the inquiry contended that a domestic gas reservation policy for gas produced in New South Wales would not be an effective policy solution for the state.

**4.30** Santos Limited, in their submission, also rejected a domestic gas reservation policy for gas produced in New South Wales as an answer to the potential challenges facing the state. They argued that such a policy would distort the market and lead to higher gas prices. They submitted:

Implementing a government mandated policy of domestic gas reservation to solve the challenge of prices increases and supply will not solve the problem. Further, such a policy will distort the market resulting in less gas being developed and perversely lead to higher gas prices. Experience is that reservation will not make gas cheaper or quicker to develop. Investment in new supply is the only real policy option that can deliver gas in to the domestic market at an acceptable price.<sup>159</sup>

**4.31** Even if the NSW Government were to support a gas reservation policy, some inquiry participants expressed doubt on whether it could be implemented.

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<sup>156</sup> Submission 19, NSW Government, p 3.

<sup>157</sup> Evidence, the Hon. Anthony Roberts MP, 28 January 2015, p 13.

<sup>158</sup> Evidence, Mr Fennelly, 2 February 2015, p 61.

<sup>159</sup> Submission 36, Santos Limited, p 20.

- 4.32** On the basis that New South Wales does not produce enough gas to reserve, the NSW Government argues that any gas reservation policy designed to assist New South Wales with a potential gas crisis would need to have the cooperation of a number of States which make up the eastern Australian gas market. Minister Roberts stated:

Of course, a national reservation policy would require other States, such as South Australia and Queensland, effectively to sign up to a deal whereby they would subsidise supplies for New South Wales without receiving anything in return. In short, they would be required voluntarily to accept lower prices for gas that they have produced. That would mean less return for gas-producing businesses that have chosen to invest in those States and lower royalties for those States. As noted in the Government's submission to this inquiry, such a policy would extinguish the contractual obligations that have been made to supply gas to LNG export hubs.<sup>160</sup>

- 4.33** Mr Tim Nelson, Head of Economic Policy and Sustainability, AGL, concurred that the reliance of New South Wales on other states could impede the introduction of a domestic reservation policy. Mr Nelson commented:

At the moment with the way that regulatory structure works reservation can only be done by States and so a reservation policy that would effectively solve New South Wales gas supply issues would require one of the other States that has more gas compulsorily directing that into New South Wales.<sup>161</sup>

- 4.34** Mr Matt Grudnoff, Senior Economist, The Australia Institute, supported the introduction of a domestic gas reservation policy on an Australian-wide basis but acknowledged the difficulty in obtaining agreement from the state governments involved.<sup>162</sup>

- 4.35** Other inquiry participants also called for a national approach to the issue of domestic gas reservation. For example, Mr Michael Zelinsky, National Vice-President, The Australian Workers' Union, gave evidence that:

Unfortunately New South Wales finds itself in a situation where it is at the behest of decisions of other States. The only way to deal with this is at a national level with a coordinated approach from all States.<sup>163</sup>

- 4.36** Mr Zelinsky observed that there is a coordinated national approach to many issues and that there should be one for energy.<sup>164</sup>

### **Gas from Narrabri and Gloucester projects**

- 4.37** During the inquiry both Santos and AGL discussed their commitments to make available for use in New South Wales the gas they plan to produce from their CSG projects in Narrabri and Gloucester respectively.

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<sup>160</sup> Evidence, the Hon. Anthony Roberts MP, 28 January 2015, p 13.

<sup>161</sup> Evidence, Mr Tim Nelson, Head of Economic Policy and Sustainability, AGL Energy Limited, 28 January 2015, p 66.

<sup>162</sup> Evidence, Mr Matt Grudnoff, Senior Economist, The Australia Institute, 28 January 2015, p 38

<sup>163</sup> Evidence, Mr Zelinsky, 2 February 2015, p 17.

<sup>164</sup> Evidence, Mr Zelinsky, 2 February 2015, p 17.

**4.38** In their submission AGL stated that all gas from the Gloucester CSG project is committed to New South Wales and will not be exported.<sup>165</sup> In response to questioning on this issue, in particular at what price AGL will sell its gas domestically, Mr Nelson, highlighted that being a retailer of gas as well as a producer, it is in the business interests of AGL to supply gas to its New South Wales customers at an affordable price. Mr Nelson stated:

From a business perspective, again we are very long retail. What that means is we have got more retail obligations than we have long-term supply capability. Because we only produce 5 per cent of New South Wales and we are a very large retailer what we need to do is to try to provide more gas into that market for our own purposes, which is to supply those customers. It is not in our interests to sell that gas at a price that makes those customers go out of business because we do not have any liquefied natural gas [LNG] capability. If we do not sell it to those domestic customers where it is effectively gas that gets into a very long queue longer term it is not worth as much to us.<sup>166</sup>

**4.39** Given that AGL have made commitments to make all its gas produced at Gloucester available to the New South Wales market, Mr Nelson was questioned on AGL's opposition to a reservation policy. Mr Nelson commented:

I can only say that given we have made the commitment I think it would be simply a regulatory commitment over and above something we have already made to the stock market. Under continuous disclosure obligations we have made that commitment and therefore investors are expecting that gas, should it to be produced, to go to our retail customers in New South Wales.<sup>167</sup>

**4.40** In their submission to the inquiry Santos indicated that gas produced from its Narrabri project could supply up to 50 per cent of New South Wales' daily gas requirements. In evidence before the committee, Mr James Baulderstone, Vice-President Eastern Australia, Santos, indicated that there is no intention on the part of Santos to export gas produced from its Narrabri project. Mr Baulderstone said that gas produced from Narrabri is intended to be transported through the Moomba to Sydney pipeline and connect south into New South Wales. As stated by Mr Baulderstone:

Similarly with gas in New South Wales, we have said time and again our only plan is to build a connection point from Narrabri into the Moomba to Sydney pipeline. I have seen another submission before this inquiry that talks about a Hunter pipeline. We have no plans; we are doing no work on any northern pipeline. There is one route and it is going south.<sup>168</sup>

**4.41** In answers to supplementary questions, Santos repeated its commitment to ensure any gas it produces will be prioritised for use in New South Wales:

<sup>165</sup> Submission 17, AGL Energy Limited, p 3.

<sup>166</sup> Evidence, Mr Nelson, 28 January 2015, p 63.

<sup>167</sup> Evidence, Mr Nelson, 28 January 2015, p 66.

<sup>168</sup> Evidence, Mr James Baulderstone, Vice-President Eastern Australia, Santos Limited, 28 January 2015, p 31.

As indicated in the public hearing, there is no prioritisation of gas for export. Santos has been very clear that gas produced at the Narrabri Gas Project will be prioritised to the families and businesses in NSW to ensure an affordable supply going forward.<sup>169</sup>

**4.42** Commenting on the above commitments made by AGL and Santos, Minister Roberts advised the committee in evidence that:

That is one of the key positions that we have been able to achieve with Santos and with AGL. Both of them have made it clear that that gas is destined for New South Wales markets first and foremost. From a business model point of view there are a huge amount of gas customers in New South Wales. The gas is relatively close to them.<sup>170</sup>

**4.43** However, some inquiry participants questioned whether the commitments made by Santos and AGL will be fulfilled. Ms Carmel Flint, Campaign Coordinator, Lock the Gate Alliance, questioned the likelihood of gas production companies allocating gas to the New South Wales market when higher prices are on offer internationally. Ms Flint argued that: ‘no-one will sell their gas into the domestic market at prices that are a third of the international price, which they can get if they sell it to the exporters’.<sup>171</sup>

**4.44** In addition, the Institute of Energy Economics and Financial Analysis also commented on Santos’ commitment to make the gas from their Narrabri project available to the Sydney market. The Institute claimed that this commitment was ‘non-binding’ and argued that ‘in the absence of any legally binding contract’ Santos will prioritise its shareholders and seek to sell its gas to the highest bidder.<sup>172</sup>

### **Committee comment**

**4.45** Energy security is essential for households and businesses. Given the changes to the eastern Australian gas market the committee is concerned about the impact this will have on New South Wales gas consumers, in terms of securing supply at an affordable price.

**4.46** The committee expresses its disappointment that no-one appears to have recognised the significant disruption that the move to LNG export would have on the domestic gas market. However, we are encouraged that the NSW government has now committed to address the state’s future energy security challenges. The committee supports the chief objective of the *NSW Gas Plan*: ‘to secure reliable, affordable and sustainable [gas] supplies’. Given that the terms of reference for this inquiry did not extend to evaluating the impacts of CSG activity, we simply note that if the CSG industry progresses in New South Wales, as proposed in the *NSW Gas Plan*, it must be pursued in accordance with the Chief Scientist’s recommendations and address landholder rights, and all the other scientific, legal, financial, safety and other regulatory challenges set out in her recommendations.

**4.47** We acknowledge that Santos and AGL have publicly committed to make any gas produced at their Gloucester and Narrabri projects available for use by New South Wales households and

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<sup>169</sup> Answers to supplementary questions, Santos Limited, 6 February 2015, p 1.

<sup>170</sup> Evidence, the Hon. Anthony Roberts MP, 28 January 2015, p 8.

<sup>171</sup> Evidence, Ms Carmel Flint, Campaign Coordinator, Lock the Gate Alliance, 28 January 2015, p 21.

<sup>172</sup> Submission 13, Institute of Energy Economics and Financial Analysis, pp 1-2.

businesses. The committee welcomes these commitments but considers that they should be formalised by way of a reservation policy. Such a policy need only be a formalisation of these existing voluntary commitments.

- 4.48** The committee notes the evidence received from the industry outlining concerns that a domestic gas reservation policy will deter investment in the gas industry and increase prices. We note this evidence is hardly disinterested and is self-serving on the part of those who stand most to gain from there being no reservation policy. However, given the importance of gas to New South Wales households and industry, particularly manufacturing businesses, and the changing dynamics of the eastern Australian gas market, the committee considers that an Australia-wide domestic gas reservation policy is needed to assist in containing gas prices and ensuring security of supply.
- 4.49** The interconnected nature of the east coast network and the geographical distribution of gas resources, means any domestic gas reservation policy would be most successfully implemented at a national level across the east coast network, as either a condition of export approval or as an agreement at COAG.
- 4.50** We note that many other gas exporting countries have some kind of reservation policy or national interest test to protect domestic gas markets from the negative effects of gas exports.
- 4.51** The committee stresses that gas is a resource ultimately owned by the people. While private commercial interests that develop the resource are entitled to a reasonable return on investment, those interests cannot be allowed to advantage themselves at the cost of energy security and affordability for ordinary citizens and businesses. This should be the case whether we are speaking as a state or a country.
- 4.52** With gas now being produced in Australia on a scale that completely eclipses any demand by domestic residential or industrial users,<sup>173</sup> any difficulty with supply or increased price can only be as a result of rent-seeking by private interests, allowed by market and regulatory failures. Governments in this state and other jurisdictions should take action to prevent or remedy this occurring.
- 4.53** If it is the case that the private commercial interests that have developed and are developing this resource can sell the product overseas for a significantly higher price, and/or are using this possibility to increase prices exponentially, difficulties of supply or affordability will afflict both residential and commercial gas users, regardless of the physical availability of supply in other jurisdictions.
- 4.54** Only action by government will address this. The market by itself cannot, because of its increasing exposure to an international price for gas.
- 4.55** Any expansion of the CSG industry in New South Wales should only occur if it can be undertaken safely in accordance with the Chief Scientist's recommendations and to the benefit of NSW households and businesses.

<sup>173</sup> Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas: Could demand in NSW fall to half?*, p 15.

- 4.56 The committee finds that while the recommendations of the Chief Scientist are being implemented, the NSW government should pursue through COAG the implementation of an Australia-wide domestic gas reservation policy.
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#### **Recommendation 4**

That the Minister for Resources and Energy, through the Council of Australian Governments' Energy Council, pursue the implementation of an Australia-wide domestic gas reservation policy, while the recommendations in the Chief Scientist and Engineer's *Final Report of the Independent Review of Coal Seam Gas Activities in NSW* (September 2014) are being implemented.

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### **Other measures to facilitate energy security**

- 4.57 During the inquiry, the committee received evidence on alternative energy sources for New South Wales and other avenues the state can consider to secure its energy needs, including the signing of an Memorandum of Understanding with the Northern Territory to explore the development of a gas pipeline linking the Northern Territory to the east coast gas market.

#### **Alternative energy sources and measures to improve efficient energy use**

- 4.58 In evidence, Minister Roberts commented on the importance of a diverse range of energy options:

... if you want energy security, you need to diversify the energy marketplace where you have gas; traditional coal-fired power stations for electricity; you have solar; you have wind power; and you have geothermal. The broader you can get that input of course, your risk is lowered. We have invested significant amounts of money in assisting in the development of new types of energy in the marketplace.<sup>174</sup>

- 4.59 With respect to gas production, the NSW government highlighted the current programs designed to extract gas from waste. Mr Andrew Lewis, Acting Director, Operations and Programs, New South Wales Department of Trade and Investment, commented:

Certainly in relation to alternative sources of gas, there is bioenergy, which is a key focus of the Government. There are a number of programs. The issue is primarily about the size of the resource that is needed there. Obviously there is a lot of extraction from municipal waste facilities—from tips—to get biogas from that. Sydney Water, as you correctly point out, uses some of its sewage-treatment facilities to gather gas.<sup>175</sup>

- 4.60 Ms Flint of the Lock the Gate Alliance, highlighted that alternative energy sources are becoming cheaper and more energy efficient:

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<sup>174</sup> Evidence, the Hon. Anthony Roberts MP, 28 January 2015, p 5.

<sup>175</sup> Evidence, Mr Andrew Lewis, Acting Director, Operations and Programs, New South Wales Department of Trade and Investment, 28 January 2015, p 6.

Solar and wind are available and becoming cheaper. There are a lot of appliances that are becoming more energy efficient, such as heat pump space heating and water heating, which is now becoming more efficient than gas. So there are plenty of options. There are also energy efficiency options to reduce energy demand.<sup>176</sup>

- 4.61** Some inquiry participants discussed options aimed at assisting households and industry to become more energy efficient. In their submission, the Public Interest Advocacy Centre (PIAC) recommended that the NSW government develop policies to support energy efficiency in households and improved uptake of renewable energy technologies by low-income households.<sup>177</sup>
- 4.62** The committee notes that New South Wales has a 20 per cent target for energy from renewable sources by 2020, but that this is not mandated by law.

### **Memorandum of Understanding with the Northern Territory**

- 4.63** In the NSW government's submission to the inquiry, it indicated that in November 2014 it had signed a Memorandum of Understanding with the Northern Territory to explore the development of a gas pipeline linking the Northern Territory to the east coast gas market. The aim of the development would be to increase gas supply to New South Wales households and businesses.<sup>178</sup> In evidence, Minister Roberts stated:

...the memorandum of understanding [MOU] we have undertaken with the Northern Territorian Government looks outside New South Wales as well to where we can assist in the development of new markets for gas and assist producers. For example, the Northern Territory has large quantities of gas and not a lot of consumers or manufacturing. We have a large number of consumers and a large number of manufacturers. I think it is just intelligent to link those two up. Of course by doing that, as I said before, and by having clear and transparent marketplaces through well-functioning hubs, you are able to assist those second tier smaller gas producers in bringing their gas to market.<sup>179</sup>

- 4.64** The NSW government further indicated that early projections indicate that the development of the pipeline could potentially supply 20 to 25 per cent of New South Wales demand at a cost of \$1 billion to \$1.2 billion.<sup>180</sup>
- 4.65** In their submission, the Arid Lands Environment Centre, a regional environmental organisation based in Alice Springs, raised a number of environmental and social concerns with the proposed pipeline. The Arid Lands Environment Centre submitted:

The Northern Territory is not a sacrifice zone for the energy security of New South Wales or any other jurisdiction. The pipeline is not a sustainable solution to the ongoing energy demand of New South Wales.<sup>181</sup>

<sup>176</sup> Evidence, Ms Carmel Flint, 28 January 2015, p 20.

<sup>177</sup> Submission 33, Public Interest Advocacy Centre, pp7–8.

<sup>178</sup> Submission 19, NSW Government, p 3.

<sup>179</sup> Evidence, the Hon. Anthony Roberts MP, 28 January 2015, p 6.

<sup>180</sup> Evidence, Mr Andrew Lewis, 28 January 2015, p 9.

<sup>181</sup> Submission 15, Arid Lands Environment Centre, p 5.

### Committee comment

- 4.66** The committee heard of other ways to secure the state's energy supplies. This includes improving energy efficiency, exploring alternative fuel sources and considering other sources of gas. The committee would encourage the NSW government to continue to examine diverse means to achieve energy security, but not at the expense of using cheaper forms of existing supplies, where available.

### Liquid fuel refinery closures

- 4.67** The primary focus of this inquiry is the supply and affordability of gas in New South Wales. Below is a discussion about the recent closures of oil refineries in New South Wales and the impact on energy security in New South Wales.
- 4.68** An oil refinery is an industrial process plant where crude oil is processed and refined into other products including gasoline, diesel fuel, kerosene and liquefied petroleum gas.<sup>182</sup> New South Wales formerly hosted two oil refineries but both were recently closed. The refinery closures will have various impacts relevant to the security of oil supply chains.
- 4.69** In their submission the NSW government stressed the importance of liquid fuel security:

Liquid fuels are critical to the NSW economy and end users. Liquid fuels security remains a priority matter and is monitored under emergency management arrangements.<sup>183</sup>

### Recent closures

- 4.70** In July 2011, the Clyde refinery which was operated by Shell and located in western Sydney closed. The other refinery, which was operated by Caltex and located in the southern Sydney suburb of Kurnell, closed in October 2014. Both sites have been converted into fuel import terminals.<sup>184</sup>
- 4.71** The respective operators stated that Australia faced competitive disadvantages relative to more efficient refineries operating within the Asian region. These disadvantages include high operating costs, ageing facilities, increasing sea miles for the transport of crude oil to the refineries, increasing technical complexity and the high Australian dollar.<sup>185</sup>
- 4.72** In addition to the Clyde and Kurnell closures, refineries in Queensland and South Australia have also recently closed. Consistent with the New South Wales closures, the operators of the

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<sup>182</sup> House Standing Committee on Economics, Australian House of Representatives, *Inquiry into Australia's Oil Refinery Industry*, (2013), p 1.

<sup>183</sup> Submission 19, NSW Government, p 4.

<sup>184</sup> Submission 4, Caltex Australia, p 1; House Standing Committee on Economics, Australian House of Representatives, *Inquiry into Australia's Oil Refinery Industry*, (2013), p 73.

<sup>185</sup> Submission 4, Caltex Australia, p 8; Nicole Stevens, 12 April 2011, *Sydney Morning Herald*, 'Shell's Sydney refinery can't compete', accessed 20 January 2015 <http://news.smh.com.au/breaking-news-business/shells-sydney-refinery-cant-compete-20110412-1dbyw.html>.

interstate refineries stated that Australia faced competitive disadvantages meaning that it was no longer viable to continue refining oil.<sup>186</sup>

### Refinery closures and energy security

**4.73** A long-term impact of the refinery closures is that Australia and New South Wales will become more dependent on refined oil importation. According to Engineers Australia, a national peak body for engineering practitioners, Australia's importation of refined oil has increased significantly meaning it is now more vulnerable to the forces shaping the international market for refined oil:

Since 2002, the proportion of refined petroleum, oils and lubricants sourced from overseas has risen from 11 percent to 37 percent in 2012, and it is estimated that this will reach 43 percent in 2014 with the closure and conversion of the New South Wales refineries. This increases Australia's vulnerability to the influences of the global market in terms of availability of refined products.<sup>187</sup>

**4.74** The 2013 House of Representatives report on Australia's oil industry did not identify an issue with Australia's increasing reliance on international markets for refined oil products. The report stated that 'the changes in domestic refining capacity to date will not [affect] Australia meeting its liquid fuel requirements'.<sup>188</sup>

**4.75** Engineers Australia also advised that as a member of the International Energy Agency (IEA), 'Australia is obligated to maintain reserves of crude oil and/or product equivalent required to sustain consumption for 90 days, based on the prior year's average net oil imports' to assist in ameliorating global oil shocks.<sup>189</sup> Both Engineers Australia and Caltex, a major fuels marketer, argued that security of supply should not be measured by oil stocks but instead by having adequate flows of oil from multiple sources.<sup>190</sup>

**4.76** According to Caltex 'Australia has established and secure flows of oil and petroleum products due to multiple fuel sources, multiple ports and a web of shipping routes connecting the refineries'. Caltex added that 'Australia has well-developed domestic supply chains and supporting emergency response plans'. To illustrate its point Caltex cited the ordered domestic response to the 2011 Libyan crisis, and subsequent oil supply disruptions, as a positive example of Australia's ability to cope with international oil market volatility.<sup>191</sup>

**4.77** Regarding the impact of the Clyde and Kurnell refinery closures on fuel prices, Caltex argued that because prices reflect import parity pricing (namely, the price within international

<sup>186</sup> Brian Robins, 2 April 2014, *Sydney Morning Herald*, 'BP refinery closure leaves Australia more reliant on fuel imports', accessed 20 January 2015, <http://www.smh.com.au/business/mining-and-resources/caltex-job-cuts-expose-australia-to-global-markets-20120726-22suf.html>.

<sup>187</sup> Submission 14, Engineers Australia, p 3.

<sup>188</sup> Submission 14, Engineers Australia, p 3.

<sup>189</sup> Submission 14, Engineers Australia, p 3.

<sup>190</sup> Submission 4, Caltex Australia, p 10; submission 14, Engineers Australia, p 3.

<sup>191</sup> Submission 4, Caltex Australia, p 10.

markets) for refinery production and imported fuels, there has been negligible change to oil prices in Australia.<sup>192</sup>

- 4.78** This argument was acknowledged in the 2013 House of Representatives report on Australia's oil industry which stated:

The closure of the refineries will not lead to negative price outcomes for consumers. Australian fuel prices reflect an import parity price, which is the price in international markets...Crude oil and petroleum fuels are internationally traded commodities with prices determined by market forces.<sup>193</sup>

### **Committee comment**

- 4.79** The committee notes that New South Wales no longer has on oil refining capacity following the closure of the Clyde and Kurnell refineries. Regarding any long-term on oil prices, the committee accepts there is little scope for governments to intervene and set prices given that the cost of oil reflects import parity pricing. However, the committee urges the NSW government to be active in ensuring that New South Wales has adequate flows of oil from multiple sources and that its domestic and international supply chains are robust, to ensure energy security for New South Wales.

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<sup>192</sup> Submission 4, Caltex Australia, p 3.

<sup>193</sup> Submission 4, Caltex Australia, p 3.

## Appendix 1 Submissions

No	Author
1	Weston Aluminium Pty Ltd
2	Mr Geoffrey Miell
3	Energy Resource Information Centre
4	Caltex Australia Limited
5	University of Melbourne Energy Institute
6	Mr Bruce Robertson
7	Confidential
8	The Australia Institute
9	Brickworks
10	Alternative Technology Association (ATA)
11	Ethnic Communities' Council of NSW
12	Ms Marion Johnstone
13	Institute of Energy Economics and Financial Analysis
14	Engineers Australia
15	Arid Lands Environment Centre
16	The Greens
17	AGL Energy Ltd
18	Mr Bob Fozzard
19	NSW Government
20	NSW Farmers Association
21	Australian Petroleum Production and Exploration Association (APPEA)
22	Lock the Gate Alliance
23	Independent Pricing and Regulatory Tribunal
24	Confidential
25	NSW Business Chamber
26	Mrs Sarah Ciesiolka
27	Energy Supply Association of Australia
28	APA Group
29	Australian Pipeline Industry Association
30	Mr Richard Deem
31	Business Council of Australia
32	METGASCO

<b>No</b>	<b>Author</b>
<b>33</b>	Public Interest Advocacy Centre
<b>34</b>	Jemena
<b>35</b>	The Australian Workers' Union
<b>36</b>	Santos Limited

## Appendix 2 Witnesses at hearings

<b>Date</b>	<b>Name</b>	<b>Position and Organisation</b>
<b>Wednesday 28 January 2015 Macquarie Room Parliament House, Sydney</b>	The Hon Anthony Roberts MP	Minister for Resources and Energy and Special Minister of State
	Ms Kylie Hargreaves	Deputy Secretary, New South Wales Department of Trade and Investment, Division of Resources and Energy
	Mr Andrew Lewis	Acting Director, Operations and Programs, New South Wales Department of Trade and Investment
	Ms Carmel Flint	Campaign Coordinator Lock the Gate Alliance
	Mr James Baulderstone	Vice-President Eastern Australia Santos Limited
	Mr Peter Mitchley	General Manager, Energy New South Wales Santos Limited
	Mr Matt Grudnoff	Senior Economist The Australia Institute
	Mr Timothy Forcey	Energy Advisor University of Melbourne Energy Institute
	Mr Tim Nelson	Head of Economic Policy and Sustainability AGL Energy Limited
	<b>Wednesday 2 February 2015 Macquarie Room Parliament House, Sydney</b>	Mr Paul Orton
Ms Larissa Cassidy		Policy Advisor NSW Business Chamber
Mr Michael Zelinsky		National Vice-President Australian Workers Union
Ms Marion Johnstone		Group Treasurer CSR Limited
Mr Steve Davies		National Policy Manager Australian Pipeline Industry Association
Dr Gabrielle Kuiper		Senior Policy Officer Public Interest Advocacy Centre
Mr Oliver Derum		Senior Policy Officer Public Interest Advocacy Centre

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<b>Date</b>	<b>Position and Organisation</b>
Mr Kieran Donoghue	General Manager Policy Energy Supply Association of Australia
Mr Shaun Cole	Policy Advisor Energy Supply Association of Australia
Mr Paul Fennelly	Chief Operating Officer, Eastern Region Australian Petroleum Production & Exploration Association
Mr Damian Dwyer	Director, Economics Australian Petroleum Production & Exploration Association

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## Appendix 3 Tabled documents

**Wednesday 28 January 2015**

**Macquarie Room, Parliament House, Sydney**

- 1 Document entitled “The dash for gas. Could demand in New South Wales fall to half?”  
tendered by Mr Tim Forcey, Energy Advisor, Melbourne Energy Institute
- 2 Documents tendered by Mr Tim Forcey, Energy Advisor, Melbourne Energy Institute  
documents labelled:
  - Exhibit 1: List of organisations publishing reference information
  - Exhibit 2: Categories of NSW gas demand
  - Exhibit 3: Report Figure 1: NSW declining annual fossil gas demand scenario
  - Exhibit 4: Economic alternatives to gas appliances
  - Exhibit 5: NSW gas demand – drivers of change

## **Appendix 4 Answers to questions on notice**

The committee received answers to questions on notice and/or supplementary questions from:

- New South Wales Department of Trade and Investment, Division of Resources and Energy
- Santos
- AGL Energy Limited
- NSW Business Chamber
- Australian Pipeline Industry Association
- Public Interest Advocacy Centre
- Energy Supply Association of Australia
- Australian Petroleum Production & Exploration Association

## Appendix 5 Minutes

### Minutes no. 1

Tuesday 18 November 2014

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales

Members' Lounge, Parliament House, 1.47pm

#### 1. Members present

Mr Borsak, *Chair*

Mr Blair

Mr MacDonald

Dr Phelps

Mr Searle

Mr Veitch (after item 5.4)

#### 2. Apologies

Mr Buckingham

#### 3. Tabling of resolution establishing the Committee

According to Standing Order 213(1) the committee clerk declared the meeting open.

#### 4. Suggested procedural resolutions

Resolved, on the motion of Mr Blair: That unless the committee decides otherwise, the following procedures apply for the duration of the inquiry:

##### *Filming, broadcasting and still photography of public proceedings*

That the committee authorise the filming, broadcasting, webcasting and still photography of the public proceedings of the committee, in accordance with the resolution of the Legislative Council of 18 October 2007.

##### *Publishing transcripts of evidence*

That the committee authorise the publication of transcripts of evidence taken at public hearings.

##### *Publishing answers to questions on notice*

That the committee authorise the publication of answers to questions on notice.

##### *Publishing submissions*

That the committee authorise the publication of all submissions to the inquiry, subject to the committee clerk checking for confidentiality, adverse mention and other issues and, where those issues arise, bringing them to the attention of the committee for consideration.

##### *Attachments to submissions*

That all attachments to submissions remain confidential, unless otherwise published by the committee.

##### *Media statements*

That media statements on behalf of the committee be made only by the Chair.

**5. Conduct of the inquiry**

**5.1 Closing date for submissions**

Resolved, on the motion of Mr Blair: That the closing date for submissions be 30 December 2014.

**5.2 Stakeholder list**

Resolved, on the motion of Mr Blair: That the secretariat email members with a list of stakeholders to be invited to make written submissions, and that members have two days from the email being circulated to nominate additional stakeholders.

**5.3 Advertising**

The Committee considered the advertising of the inquiry.

Mr Searle moved: That an advertisement be placed in The Land newspaper.

The Committee divided.

Ayes: Mr Borsak, Mr Searle,

Noes: Mr Blair, Mr MacDonald, Dr Phelps

Question resolved in the negative.

**5.4 Hearing dates**

Resolved, on the motion of Mr Searle: That the secretariat circulate to members a list of proposed dates for hearings and possible site visits.

Mr Veitch joined the meeting.

**6. Process for determining witnesses**

Resolved, on the motion of Mr Blair: That the secretariat circulate to members the Chairs' proposed list of witnesses to provide members with the opportunity to amend the list or nominate additional witnesses, and that the committee agree to the witness list by email, unless a meeting of the committee is required to resolve any disagreement.

**7. Questions on notice and supplementary questions**

Resolved, on the motion of Mr Blair: That for the duration of the inquiry supplementary questions be lodged with the secretariat up to two days following the receipt of the hearing transcript.

**8. Adjournment**

The committee adjourned at 1.56pm *sine die*.

John Young  
Clerk to the Committee

## **Minutes no. 2**

Thursday 27 November 2014

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales

Members' Lounge, Parliament House, 11.01am

### **1. Members present**

Mr Borsak, *Chair*

Mr Buckingham, *Deputy Chair (via teleconference)*

Mr Blair *(via teleconference)*

Mr MacDonald

Dr Phelps *(via teleconference)*

Mr Searle

Mr Veitch

### **2. Minutes**

Resolved, on the motion of Mr Veitch: That draft minutes no. 1 be confirmed.

### **3. Conduct of the inquiry into the supply and cost of gas and liquid fuels in New South Wales**

#### **3.1 Advertising**

The Committee considered the advertising of the inquiry.

Mr Veitch moved: That the committee advertise the inquiry in the Land, the Sydney Morning Herald and the Financial Review.

The Committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch

Noes: Mr Blair, Mr MacDonald, Dr Phelps

Question resolved in the affirmative.

#### **3.2 Hearing dates**

Resolved, on the motion of Mr Searle: That the committee hold public hearings in late January and early February 2015, the dates of which are to be determined after consultation with members.

#### **3.3 Site visits**

Resolved, on the motion of Mr Veitch: That the committee conduct a site visit on 11 December 2014 to AGL Camden Gas Project.

### **4. Adjournment**

The committee adjourned at 11.07am until Thursday 11 December 2014.

Emma Wood

**Clerk to the Committee**

### **Minutes no. 3**

Thursday 11 December 2014

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales

Camden AGL Gas Project, Camden, 10.00 am

#### **1. Members present**

Mr Borsak, *Chair*

Mr Buckingham, *Deputy Chair*

Mr MacDonald

Dr Phelps

Mr Searle

Mr Veitch

#### **2. Apologies**

Mr Blair

#### **3. Site visit to AGL Camden Gas Project**

Members attended the AGL Camden Gas Project site at Lot 35 Menangle Road, Menangle.

The committee inspected the site accompanied by:

- Mr Paul Ashby, General Manager Commercial Operations
- Ms Nicola Fry, Hydrogeologist
- Mr James Ashton, Senior Drilling and Completions Engineer
- Ms Jenny O'Brien, Community Relations Manager
- Mr Kevin Rofe, Lands and Compliance Officer
- Mr Tom Rofe, HSE Officer
- Mr Aaron Clifton, Environmental Manager
- Mr Shaughn Morgan, Manager Stakeholder Relations.

#### **4. Adjournment**

The committee adjourned at 4.30pm *sine die*.

Emma Wood

**Clerk to the Committee**

**Minutes no. 4**

Wednesday 28 January 2015

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales

Macquarie Room, Parliament House, 9.11am

**1. Members present**

Mr Borsak, *Chair*

Ms Barham, *participating member* (from 9.23am)

Mr Blair

Mr MacDonald

Dr Phelps (from 9.16am)

Mr Searle (from 9.21am)

Mr Veitch

**2. Apologies**

Mr Buckingham

**3. Previous minutes**

Resolved, on the motion of Mr Veitch: That draft minutes no's 2 and 3 be confirmed.

**4. Correspondence**

The Committee noted the following items of correspondence:

***Received***

- 8 December 2014 – Email from Mr Tony Frencham, Managing Director, Dow Chemical (Australia) Pty Ltd, informing the committee that the Plastics and Chemical Industry Association would be making a submission on their behalf.
- 6 January 2015 – Letter from Dr Mike Nahan MLA, Treasurer, Minister for Energy, Citizenship and Multicultural Interests, Western Australia, drawing the committee's attention to the Western Australian Parliament's inquiry into Domestic Gas Prices (2011) completed by the Economics and Industry Standing Committee.
- 7 January 2015 – Email from Larissa Cassidy, Policy Advisor, Infrastructure, NSW Business Chamber, informing the committee that Norske Skog has given permission to include a case study on its business as part of the Chamber's submission.
- 9 January 2015 – Email from Mr John Martin, CEO, Docklands Science Park, forwarding correspondence sent to Ministers and Mr Greg Everett, Delta Energy regarding matters pertinent to the supply and demand of gas.

**5. Submissions****5.1 Public submissions**

The committee noted submission no's 1-6, 8-23, 25-36 were published by the committee clerk under the authorisation of an earlier resolution.

**5.2 Attachments to submissions**

Resolved, on the motion of Mr Veitch: That the committee authorise the publication of the following attachments to submission no's 13 (attachment 1), 14 (attachment 1), 31 (attachment 1) and 35 (attachment 1).

**5.3 Confidential submissions**

Resolved, on the motion of Mr Blair: That the committee keep submission no's 7 and 24 confidential, as per the request of the authors.

**6. Allocation of questioning**

Resolved, on the motion of Mr Veitch: That the sequence of questions to be asked during the hearings alternate between opposition, cross bench and government members, in that order, with an equal proportion of time being allocated to each.

**7. Supplementary questions and answers to questions on notice**

Resolved, on the motion of Mr Blair:

- That members have 24 hours after the hearing to submit supplementary questions
- That witnesses from the hearings on 28 January and 2 February be requested to return answers to questions on notice and supplementary questions within seven calendar days of the date on which the transcript and any questions are forwarded to witnesses
- That the committee accept and publish answers to questions on notice and supplementary questions.

**8. Use of social media and electronic devices**

The committee noted the interim guidelines on the use of social media and electronic devices.

**9. Circulation of chair's draft report**

The committee noted that due to the short reporting deadline, the Chair's draft report will be circulated on 17 February two days in advance of the deliberative on 19 February.

**10. Public hearing** (*commenced 9.29am*)

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters. The chair noted that members of Parliament swear an oath to their office, and therefore do not need to be sworn prior to giving evidence before a committee.

Minister Roberts MP was admitted and examined.

The following witnesses were sworn and examined:

- Mr Andrew Lewis, Acting Director Operations and Programs, Division of Resources and Energy, Department of Trade and Investment, Regional Infrastructure and Services
- Ms Kylie Hargreaves, Deputy Secretary, Division of Resources and Energy, Department of Trade and Investment, Regional Infrastructure and Services.

The evidence concluded and the witnesses withdrew.

The following witness was sworn and examined:

- Ms Carmel Flint, Campaign Coordinator, Lock the Gate Alliance.

The evidence concluded and the witness withdrew.

The following witnesses were sworn and examined:

- Mr James Baulderstone, Vice President, Eastern Australia, Santos
- Mr Peter Mitchley, General Manager, Energy New South Wales, Santos.

The evidence concluded and the witnesses withdrew.

The following witness was sworn and examined:

- Mr Matt Grudnoff, Senior Economist, The Australia Institute.

The evidence concluded and the witness withdrew.

The following witness was sworn and examined:

- Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute

Mr Forcey tendered the following documents:

- Melbourne Energy Institute paper – *The dash for gas. Could demand in New South Wales fall to half?*
- List of Exhibits – Melbourne Energy Institute:
  - Exhibit 1: List of organisations publishing reference information
  - Exhibit 2: Categories of NSW gas demand
  - Exhibit 3: Report Figure 1: NSW declining annual fossil gas demand scenario
  - Exhibit 4: Economic alternatives to gas appliances
  - Exhibit 5: NSW gas demand – drivers of change

The evidence concluded and the witness withdrew.

The following witness was sworn and examined:

- Mr Tim Nelson, Head of Economic Policy and Sustainability, AGL Energy Limited.

The evidence concluded and the witness withdrew.

The public hearing concluded at 3.30pm.

The public and media withdrew.

#### **10.1 Tendered documents**

Resolved, on the motion of Mr Blair: That the committee accept and publish the following documents tendered during the public hearing:

- Melbourne Energy Institute paper – *The dash for gas. Could demand in New South Wales fall to half?*
- Melbourne Energy Institute documents labelled:
  - Exhibit 1: List of organisations publishing reference information
  - Exhibit 2: Categories of NSW gas demand
  - Exhibit 3: Report Figure 1: NSW declining annual fossil gas demand scenario
  - Exhibit 4: Economic alternatives to gas appliances
  - Exhibit 5: NSW gas demand – drivers of change

#### **11. Adjournment**

The committee adjourned at 3.32pm until 9.25am Monday 2 February 2015.

Emma Wood  
Clerk to the Committee

## Minutes no. 5

Monday 2 February 2015

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales

Macquarie Room, Parliament House, 9.30 am

### 1. Members present

Mr Borsak, *Chair*

Mr Buckingham, *Deputy Chair*

Mr Blair

Mr MacDonald

Dr Phelps

Mr Searle

Mr Veitch

### 2. Public hearing

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were sworn and examined:

The following witnesses were sworn and examined:

- Mr Paul Orton, Director, Policy and Advocacy, NSW Business Chamber
- Ms Larissa Cassidy, Policy Adviser, NSW Business Chamber.

The evidence concluded and the witnesses withdrew.

The following witness was sworn and examined:

- Mr Michael Zelinsky, National Vice President, Executive Officer, Australian Workers Union.

The evidence concluded and the witness withdrew.

The following witness was sworn and examined:

- Ms Marion Johnstone, Group Treasurer, CSR Limited.

The evidence concluded and the witness withdrew.

The following witness was sworn and examined:

- Mr Steve Davies, National Policy Manager, Australian Pipeline Industry Association.

The evidence concluded and the witness withdrew.

The following witnesses were sworn and examined:

- Dr Gabrielle Kuiper, Senior Policy Officer, Energy + Water Consumers' Advocacy Program, Public Interest Advocacy Centre
- Mr Oliver Derum, Senior Policy Officer, Energy + Water Consumers' Advocacy Program, Public Interest Advocacy Centre.

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Kieran Donoghue, General Manager Policy, Energy Supply Association of Australia

- Mr Shaun Cole, Policy Advisor, Energy Supply Association of Australia.

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Paul Fennelly, Chief Operating Officer – Eastern Region, Australia Petroleum Production and Exploration Association
- Mr Damian Dwyer, Director – Economics, Eastern Region, Australia Petroleum Production and Exploration Association.

The evidence concluded and the witnesses withdrew.

The public hearing concluded at 4.18pm.

The public and media withdrew.

### 3. **Adjournment**

The committee adjourned at 4.18 pm until 1.00 pm Thursday, 19 February 2015 (*Report deliberative*).

Emma Wood

**Clerk to the Committee**

## **Minutes no. 6**

Thursday 19 February 2015

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales

Macquarie Room, Parliament House, Sydney at 1.00 pm

### 1. **Members present**

Mr Borsak, *Chair*

Mr Buckingham, *Deputy Chair*

Mr Blair

Mr MacDonald

Dr Phelps

Mr Searle

Mr Veitch

### 2. **Previous minutes**

Resolved, on the motion of Dr Phelps : That draft minutes nos 4 and 5 be confirmed.

### 3. **Correspondence**

The committee noted the following items of correspondence:

#### ***Received:***

- 27 January 2015 – Email from Shaughn Morgan, Manager Government and External Stakeholders, AGL Energy Limited, enclosing a copy of an AGL media release announcing that AGL has voluntarily suspended work at its Waukivory Pilot Program
- 6 February 2015 – Email from Mr Kevin Morrison, Australia and Pacific correspondent, Argus Media, enclosing a copy of an Argus Media submission made to the Australian Government's Energy Green Paper
- 11 February 2015 – Email from Ms Marion Johnston, CSR Limited – inability to provide CSR commissioned research requested in a question on notice at 2 February 2015 hearing

#### 4. Answers to questions on notice

The committee noted the following answers to questions on notice and supplementary questions which were published by the committee clerk under the authorisation of an earlier resolution:

- Mr Tim Nelson, Head of Economic Policy and Sustainability, AGL Energy Limited
- Mr Jeff Sorell, Advisor, Energy NSW Government and Public Affairs, Santos Limited
- Mr Adrian Pryke, Adviser to the Leader of the House, Office of the Hon Anthony Roberts MP, Minister for Resources and Energy
- Ms Alexandra Gibson, Policy Director NSW/VIC, Australian Petroleum Production and Exploration Association, received 10 February 2015
- Mr Shaun Cole, Policy Advisor, Energy Supply Association of Australia
- Dr Gabrielle Kuiper, Senior Policy Officer, Energy + Water Consumers' Advocacy Program, Public Interest Advocacy Centre Ltd
- Ms Larissa Cassidy, Policy Adviser, NSW Business Chamber
- Mr Steve Davies, Australian Pipeline Industry Association

#### 5. Consideration of Chair's draft report

The Chair submitted his draft report entitled *Supply and cost of gas and liquid fuels in New South Wales*, which, having been previously circulated, was taken as being read.

##### Chapter 2

Mr Searle moved: That paragraph 2.4 be amended by omitting 'public scrutiny' and inserting instead 'public criticism'.

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

Question resolved in the affirmative.

Resolved, on the motion of Mr Searle: That paragraph 2.5 be amended by omitting 'as yet' and 'still' in the first sentence.

Resolved, on the motion of Mr Searle: That paragraph 2.9 be amended by omitting 'third' and inserting instead 'second' and omitting 'and uranium'.

Mr Buckingham moved: That the following paragraph be inserted after paragraph 2.3:

'Unconventional gas extraction requires many more gas wells than conventional gas extraction. Unconventional Gas wells are generally laid out in a grid, with associated pipeline, power and other infrastructure. Unconventional gas often requires extracting large amounts of water to de-pressurise the coal seam to allow the gas to flow. Hydraulic fracturing is often used to increase the migration of gas into the well.'

Question put.

The committee divided.

Ayes: Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Question resolved in the negative.

Resolved, on the motion of Mr Buckingham: That paragraph 2.4 be amended by inserting at the end: 'This is due to perceived concerns about the impact it may have on water resources, public health and the potential for wells and associated infrastructure to impact upon farmland and rural communities.'

Mr Buckingham moved: That paragraph 2.8 be amended by omitting 'Gas is a vital energy source.' and inserting instead 'Gas is currently a significant energy input for many businesses and households in New South Wales.'

Question put.

The committee divided.

Ayes: Mr Buckingham.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr Buckingham moved: That the following paragraph be inserted after paragraph 2.11:

'In 2010, governments around the world, including Australia's, agreed that emissions need to be reduced to ensure global temperature increases are limited to below two degrees Celsius (<http://www.dfat.gov.au/international-relations/themes/climate-change/pages/climate-change.aspx>). In order to meet this target, a recent study in the Journal Nature concluded that between 51 and 56 percent of gas reserves in the OECD Pacific would have to remain unused (<http://www.nature.com/nature/journal/v517/n7533/full/nature14016.html>).'

Question put.

The committee divided.

Ayes: Mr Buckingham.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr Buckingham moved: That the following paragraph be inserted after paragraph 2.24:

'On 30 January 2015 the global chief executive of Royal Dutch Shell, Ben van Beurden, announced that the proposed \$15 billion Arrow LNG project with PetroChina was 'off the table' due to the downturn in global oil prices (<http://www.smh.com.au/business/shell-shelves-plans-for-arrow-lng-project-in-queensland-20150130-132ahz.html#ixzz3S5cIzVcy>). This facility was to have a total processing capacity of up to 16 million tonnes per annum of LNG (<http://www.gladstone.qld.gov.au/lng-related-projects>).'

Question put.

The committee divided.

Ayes: Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Question resolved in the negative.

Mr Buckingham moved: That the following paragraph be inserted after paragraph 2.31:

'The Australian Workers' Union argued that the net flow-on loss to the Australian economy of the move to export LNG, and the subsequent domestic gas price rise, will be \$101 billion including the loss of approximately 235,000 jobs economy wide (FOOTNOTE: Submission 35, The Australian Workers' Union, p 8).'

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

Question resolved in the affirmative.

Resolved, on the motion of Mr Searle: That the following new committee comment be inserted after paragraph 2.39:

**‘Committee comment**

The Committee was informed by a number of parties that the new capability to supply gas to international customers will mean domestic customers will have to pay higher prices in order to secure gas supply.’

Resolved, on the motion of Mr Searle: That the following paragraph be inserted in the new committee comment after paragraph 2.39:

‘The evidence to this Committee is that, despite decline in demand for gas from both industrial and residential customers, which has been evident for a number of years, (FOOTNOTE: AEMO, *National Gas Forecasting Report 2014*, p 26) and is predicted to continue, (FOOTNOTE: AEMO, *National Gas Forecasting Report 2014*, pp 7-9, pp 26-29) and perhaps even to collapse (FOOTNOTE: Tabled document, 28 January 2015, Mr Timothy Forcey, Energy Advisor, University of Melbourne Energy Institute, *The dash from gas – could demand in New South Wales fall to half?*, p 16) producers will increase their wholesale gas prices, under the spectre of being able to export.’

Resolved, on the motion of Mr Searle: That the following paragraph be inserted in the new committee comment after paragraph 2.39:

‘The evidence to this Committee is clear: the production of gas in Australia completely eclipses any domestic demand, whether from residential or commercial users. (FOOTNOTE: Melbourne Energy Institute Submission, p16) Any difficulty with supply or cost can only occur if private commercial interests place the maximisation of their own profits above the energy security and affordability of the community. This in turn can only take place due to regulatory and market failure. All governments must take action to ensure the interests of the wider community come first.’

Mr MacDonald moved: That paragraph 2.34 be amended by inserting at the end: ‘We note this is not likely to apply to gas sourced from Victoria or the Bass Strait.’

Question put and negatived.

Mr Buckingham moved: That paragraph 2.43 be amended by omitting ‘The committee recognised that gas is a vital energy source.’ and inserting instead ‘The committee recognises that gas is currently a significant energy input for many businesses and households in NSW.’

Question put.

The committee divided.

Ayes: Mr Buckingham.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr MacDonald moved: That paragraph 2.44 be amended by omitting ‘This has kept domestic gas prices low benefiting both households and industry.’ and inserting instead ‘This has kept domestic gas prices low benefiting both households and industry, but arguably discouraged exploration and production investment.’

Question put and negatived.

Mr MacDonald moved: That paragraph 2.44 be amended by inserting ‘, which is equivalent to a net-back price of approximately \$9 gigajoule.’ after ‘willing to pay up to \$15 per gigajoule’. After ‘willing to pay up to \$15 per gigajoule’.

Question put and negatived.

Dr Phelps moved: That paragraph 2.45 be amended by omitting 'With international markets prepared to pay more for eastern Australian gas, the committee accepts that domestic prices will inevitably increase.' and inserting instead 'With international markets prepared to pay more for eastern Australian gas, the committee accepts that domestic prices will inevitably increase, without a compensating increase in new supply from domestic sources that are not linked to international markets.'

Mr Searle moved: That the motion of Dr Phelps be amended by omitting 'a compensating increase in new'.

Amendment of Mr Searle put and negatived.

Original question of Dr Phelps put.

The committee divided.

Ayes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Noes: Mr Buckingham Mr Searle, Mr Veitch.

Original question of Dr Phelps resolved in the affirmative.

Resolved, on the motion of Mr Buckingham: That paragraph 2.45 be amended by inserting 'The committee also accepts that the development of a NSW indigenous gas supply by itself will have no impact on the international price of gas and therefore no meaningful impact on the domestic price of gas.' after 'With international markets prepared to pay more for eastern Australian gas, the committee accepts that domestic prices will inevitably increase, without a compensating increase in new supply from domestic sources that are not linked to international markets.'

Mr Buckingham moved: That paragraph 2.46 be amended by omitting 'the NSW Government must take whatever steps it can' and inserting instead 'the NSW Government must take reasonable steps'.

Question put and negatived.

Dr Phelps moved: That paragraph 2.46 be amended by omitting 'the NSW Government must take whatever steps it can' and inserting instead 'the NSW Government must take whatever reasonable actions consistent with a market economy it can'.

Mr Buckingham moved: That the motion of Dr Phelps be amended by inserting 'in the public interest' after 'reasonable actions'.

Amendment of Mr Buckingham put.

The committee divided.

Ayes: Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Amendment of Mr Buckingham resolved in the negative.

Original question of Dr Phelps put.

The committee divided.

Ayes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps, Mr Searle, Mr Veitch.

Noes: Mr Buckingham.

Original question of Dr Phelps resolved in the affirmative.

Dr Phelps moved: That paragraph 2.46 be amended by inserting ', particularly by encouraging increases in supply' after 'to protect households and businesses from potential shortages or price shocks'.

Question put.

The committee divided.

Ayes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Noes: Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the affirmative.

Mr Buckingham moved: That paragraph 2.46 be amended by inserting ‘The NSW government should not risk public health, the quality or quantity of water resources or the nature of farmland and rural communities by developing an indigenous gas supply from unconventional resources.’ after ‘, particularly by encouraging increases in supply.’

Mr Searle moved: That the motion of Mr Buckingham be amended by inserting ‘, in advance of full implementation of the recommendations made by the state’s Chief Scientist and Engineer.’ after ‘from unconventional resources’.

Amendment of Mr Searle put.

The committee divided.

Ayes: Mr Borsak, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr Buckingham, Mr MacDonald, Dr Phelps.

Amendment of Mr Searle resolved in the negative.

Original question of Mr Buckingham put and negatived.

### Chapter 3

Mr Buckingham moved that paragraph 3.2 be amended by:

- a) omitting ‘A likely consequence of these developments is that there will be a decline in available gas supplies at current prices over the next five years. One solution put to the committee was that New South Wales should develop its own gas resources to mitigate future supply pressures’.
- b) inserting instead ‘As a consequence of these developments there may be a decline in available gas supplies to NSW businesses and households over the next five years’.

Question put and negatived.

Resolved, on the motion of Mr Searle: That paragraph 3.2 be amended by:

- a) omitting ‘A likely consequence of these developments is that there will be a decline in available gas supplies at current prices over the next five years. One solution put to the committee was that New South Wales should develop its own gas resources to mitigate future supply pressures’.
- b) inserting instead ‘A likely consequence of these developments is that there will be a decline in gas supplies at *current prices* over the next five years, not a gas shortage [FOOTNOTE: Tim Forcey, 28 January 2015, *Australian Financial Review*, ‘Gas shortage or gas glut?’]. One solution put to the committee was that New South Wales should develop its own gas resources to mitigate future supply pressures. Other solutions included Australia, as a single economy, not a collection of jurisdictions, requiring a portion of gas extracted to be reserved for domestic sale only, as a number of other countries have done [FOOTNOTE: Submission 1, Weston Aluminium, p 3; submission 35, The Australian Workers’ Union, p 1, p 4, p 7, pp 9-10; evidence, Mr Michael Zelinsky, National Vice-President, Australian Workers Union, 2 February 2015, pp 12-17]’.

Resolved, on the motion of Mr Searle: That the heading before paragraph 3.3 be amended by omitting ‘Declining gas availability’ and inserting instead ‘Declining gas availability?’.

Resolved, on the motion of Mr Buckingham: That the following new paragraph be inserted after paragraph 3.10:

‘However, the Hon Anthony Roberts MP, Minister for Resources and Energy, noted that modelling undertaken by Acil Allen shows that should Narrabri and Gloucester coal seam gas projects come online, you will see a decrease in the price of gas of around three per cent. Should they not come online, they forecast a corresponding increase of some three per cent [FOOTNOTE: Evidence, the Hon Anthony Roberts MP, Minister for Resources and Energy, 28 January 2015, p 8]’.

Resolved, on the motion of Mr MacDonald: That paragraph 3.17 be amended by omitting ‘mining royalties’ and inserting instead ‘petroleum royalties’.

Resolved, on the motion of Dr Phelps: That paragraph 3.39 be amended by omitting ‘forecast’ and inserting instead ‘created, at the request of The Australia Institute,’.

Resolved, on the motion of Dr Phelps: That paragraph 3.40 be amended by:

- a) omitting ‘The Institute’s primary argument as to why demand would decrease was price increases attributable to the development of Queensland’s LNG export industry.’
- b) inserting instead ‘The Institute’s a priori assumption was that there was no increase in supply of gas exclusively reserved for domestic consumers, and demand would decrease due to price increases attributable to the development of Queensland’s LNG export industry.’

Resolved, on the motion of Dr Phelps: That paragraph 3.41 be amended by omitting ‘predicted’.

Resolved, on the motion of Dr Phelps: That paragraph 3.42 be amended by omitting ‘Citing its findings’ and inserting instead ‘Working on the a priori assumption’.

Resolved, on the motion of Dr Phelps: That paragraph 3.43 be amended by omitting ‘projection and inserting instead ‘scenario.’

Resolved, on the motion of Mr Buckingham: That the following new paragraph be inserted after paragraph 3.48:

‘Santos indicated that after 2016, as existing supply contracts with NSW gas retailers from the Cooper Basin come to an end, they would reduce their share of gas flows down the Moomba to Sydney pipeline by 10 – 20 petajoules per annum. [FOOTNOTE: Answers to supplementary questions, 28 January 2015, Santos Energy Limited, question 2.]’.

Dr Phelps moved that paragraph 3.49 be amended by:

- a) omitting ‘It is difficult for the committee to reconcile two such deviating forecasts. However,’.
- b) inserting instead ‘The Committee notes, however, that the AEMO studies are more consistent with market expectations, whereas the University of Melbourne Energy Institute report was a specific scenario commissioned and paid for, by a noted opponent of carbon-based energy solutions (The Australia Institute), on the basis of an a priori assumption of reduced demand due to higher prices. Moreover,’.

Question put and negatived.

Dr Phelps moved that paragraph 3.50 be amended by:

- a) omitting ‘It is imperative that the NSW Government does what it can to secure a reliable and affordable supply of gas for New South Wales, particularly given the important contribution it makes to the state’s manufacturing businesses.’
- a) Inserting instead ‘It is imperative that the NSW Government does what it can, consistent with a market economy, to secure a reliable and affordable supply of gas for New South Wales, particularly given the important contribution it makes to the state’s manufacturing businesses.’

Question put.

The committee divided.

Ayes: Mr Blair, Mr Borsak, Dr Phelps, Mr MacDonald, Mr Searle, Mr Veitch

Noes: Mr Buckingham.

Question resolved in the affirmative.

Mr Buckingham moved that paragraph 3.50 be amended by omitting 'It is imperative that the New South Wales Government does what it can' and inserting instead 'It is imperative that the New South Wales Government takes reasonable steps'.

Question put.

The committee divided.

Ayes: Mr Buckingham

Noes: Mr Blair, Mr Borsak, Dr Phelps, Mr MacDonald, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr Buckingham moved that paragraph 3.51 be amended by omitting 'To that end, the NSW Government is seeking to develop the state's indigenous gas reserves in the expectation that increased supply will place downward pressure on prices thus benefiting households and businesses alike'.

Question put and negatived.

Dr Phelps moved that paragraph 3.51 be amended by:

- a) omitting 'However, the argument that the gas industry wants access to the state's gas reserves so that it may take advantage of higher prices on offer internationally is difficult to ignore. The committee believes that if indigenous gas resources are to be utilised then adequate safeguards must be developed to establish a competitive domestic price and guaranteed domestic supply. The measures by which this may be achieved are considered in chapter 4.'
- b) Inserting instead 'The NSW Government should do all in its power to provide a welcoming environment for investment in gas exploration and production in this state, and improve business confidence by removing any arbitrary or punitive barriers to such industry.'

Question put and negatived.

Resolved, on the motion of Mr Buckingham That the following new paragraph be inserted after paragraph 3.51:

'The more impartial, economic evidence before this Committee leads us to favour the proposition that increased domestic supply of gas will not by itself lead to reductions in gas prices, or even a reduction in the rate of price increases. This is because the predominant driver of domestic gas prices will be the international gas price and an indigenous NSW gas supply would be very small in the context of the world gas market and will not impact upon the world price. This means that government regulation of the gas market will be necessary to have a significant impact on price or to guarantee domestic supply.'

Resolved, on the motion of Mr Searle: That paragraph 3.51 be amended by:

- a) omitting 'However, the argument that the gas industry wants access to the state's gas reserves so that it may take advantage of higher prices on offer internationally is difficult to ignore. The committee believes that if indigenous gas resources are to be utilised then adequate safeguards must be developed to establish a competitive domestic price and guaranteed domestic supply. The measures by which this may be achieved are considered in chapter 4.'
- b) Inserting instead 'However, the argument that the gas industry wants access to the state's gas reserves so that it may take advantage of higher prices on offer internationally, or use the spectre of this to simply increase price, is difficult to ignore. The committee believes that adequate safeguards must be developed to establish a competitive domestic price and guaranteed domestic supply. The measures by which this may be achieved are considered below in this section and also in chapter 4.'

Resolved, on the motion of Mr Searle: That the following new paragraph be inserted after paragraph 3.51:

‘There is, however, a significant public policy controversy over the extraction of coal seam gas in NSW. The report of the New South Wales Chief Scientist and Engineer, Professor Mary O’Kane in September 2014 sets out in her recommendations [FOOTNOTE: New South Wales Government, Chief Scientist and Engineer, Final Report of the Independent Review of Coal Seam Gas Activities in NSW, September 2014, accessed 19 February 2015 [http://www.chiefscientist.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0005/56912/140930-CSG-Final-Report.pdf](http://www.chiefscientist.nsw.gov.au/__data/assets/pdf_file/0005/56912/140930-CSG-Final-Report.pdf)] a significant body of work that has not been done to date regarding substantial additional scientific research on the impacts of CSG extraction, and regulatory and legislative reform. On any analysis, the body of work she says government needs to do, without which there is no prospect of CSG being environmentally safe in NSW, is very substantial. This matter is discussed more fully later in this report at paragraph 4.XX and following.’

Dr Phelps moved: That paragraphs 3.73-3.78 and Recommendation 1 be omitted and the following new paragraph be inserted instead:

‘The Committee acknowledges that retail consumers of products, in this case gas, always like to know what the wholesale price for such products are, ostensibly to determine what sort of mark-up is being achieved by the retailer. However, it is not the role of governments to interfere in markets to compulsorily extract such information, especially given that retail customers have, in almost every instance, the ability to seek energy sources from alternative retailers, especially electricity retailer, if they believe that the gas retailers are price-gouging.’

Question put and negatived.

Resolved, on the motion of Mr Searle: That the following new committee comment and recommendation be inserted after Recommendation 1:

**‘Committee comment**

The Committee also received evidence regarding the operation of the National Electricity Market (NEM) and how it is facilitating a much greater degree of information for purchasers, providing updates every five minutes. This is vital to ensuring competitive wholesale prices for electricity across Australia.

The Committee recommends that the New South Wales Government work with other jurisdictions to create a gas market equivalent of the NEM. We also recommend that the New South Wales Government undertake an audit of all regulatory tools it has to improve transparency and openness in the gas market in New South Wales and Australia.

**Recommendation X**

That the New South Wales Government:

- work with other jurisdictions to create a gas market equivalent of the National Electricity Market
- undertake an audit of all regulatory tools it has to improve transparency and openness in the gas market in NSW and Australia.’

Mr Buckingham moved that the following recommendation be inserted after Recommendation 1:

**‘Recommendation X**

That the New South Wales Government request that the Australia Competition and Consumer Commission investigate current arrangements and practices in the upstream gas industry to ensure that any monopoly, cartel or other behaviours are not being practiced to the detriment of Australian gas consumers, and that upstream gas companies are disclosing adequate information to ensure a competitive gas market.’

Question put.

The committee divided.

Ayes: Mr Buckingham, Mr Searle, Mr Veitch

Noes: Mr Blair, Mr Borsak, Dr Phelps, Mr MacDonald.

Question resolved in the negative.

Mr Buckingham moved: That paragraph 3.78 be omitted.

Question put and negatived.

#### **Chapter 4**

Resolved, on the motion of Mr Searle: That

- a) the introductory paragraph be omitted: ‘The previous chapter foreshadowed a potential gas supply shortage in New South Wales in coming years and the impact such a shortage could have on gas affordability in New South Wales, in particular, by progressing the state’s coal seam gas industry. The policy of reserving part of any gas produced by New South Wales for domestic use is also considered, as well as alternative energy sources. The impact of oil refinery closures on energy security in New South Wales is also discussed.’
- b) and the following paragraph be inserted instead: ‘This chapter considers means to achieve energy security and affordability in New South Wales, in particular, by an Australia-wide gas reservation policy, as well as alternative energy sources. The impact of oil refinery closures on energy security in New South Wales is also discussed’.

Resolved, on the motion of Mr Buckingham: That paragraph 4.2 be amended by inserting at the end: ‘As discussed in Chapter 3, the committee does not accept the argument that progressing the state’s coal seam gas industry, by itself, will lead to any meaningful reduction in the domestic gas price’.

Mr Buckingham moved: That paragraph 4.3 be amended by inserting at the end:

‘However, many inquiry participants, including NSW Farmers Association and Lock the Gate, have highlighted the significant risks to farmland, water resources and public health that unconventional gas exploration and production poses. These risks and the widespread and determined community opposition to unconventional gas exploration and production cannot be ignored when examining issues which affect gas supply and pricing issues’.

Question put.

The committee divided.

Ayes: Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Question resolved in the negative.

Resolved, on the motion of Mr Searle: That

- a) the following new paragraphs be inserted after paragraph 4.7:

She went on to say, however, that:

“All of this needs to take place within a clear, revised, legislative framework which is supported by an effective and transparent reporting and compliance regime and by drawing on appropriate expert advice.”[FOOTNOTE: New South Wales Government, Chief Scientist and Engineer, Final Report of the Independent Review of Coal Seam Gas Activities in NSW, September 2014, p iv].

It is the development of this regulatory and legal framework that is set out in her recommendations 3-16. However, what she provides is a narrative road map, not a detailed, scientific plan of how to achieve the outcomes she says are needed.

It is worth noting that while some have claimed the Chief Scientist says the CSG industry can be operated safely, this is clearly in the context of her recommendations being implemented in full and before the industry is pursued further. Even so, she warns:

“...the detailed hydrogeology is not yet fully characterised, there could be unexpected events, learnings, or even accidents. This is common for new applications in the extractive industries ... It also highlights the need to record and capitalise on the data and knowledge gained from CSG extraction activities in new regions and to take advantage of new technology developments which, if harnessed appropriately, *can* make CSG production *increasingly safer* and more efficient *over time*.” (Emphasis added) [FOOTNOTE: New South Wales Government, Chief Scientist and Engineer, Final Report of the Independent Review of Coal Seam Gas Activities in NSW, September 2014, p iv].’

- b) the following new committee comment be inserted after paragraph 4.9:

This is hardly a ringing endorsement of CSG or even a real claim it can be pursued safely and without harm to our previous water resources, environment and farming lands.

Resolved, on the motion of Mr Searle: That the following new paragraph be inserted after paragraph 4.8:

In his evidence to this Committee, Minister Roberts was asked to provide an update on the NSW Government’s implementation of the recommendations of the Chief Scientist and the timeframes for their full implementation. [FOOTNOTE: Evidence, the Hon Anthony Roberts MP, 28 January 2015, p 14.] The answer provided on notice failed to provide any timeframe for the implementation of the Chief Scientist’s recommendations. [FOOTNOTE: Answers to questions on notice, NSW Government, 6 February 2015, p 2.] The Committee finds this response unhelpful and casts doubt on the commitment of the NSW Government to implement the report of the Chief Scientist.

Mr Macdonald moved: That the following new recommendation be inserted in the new committee comment after paragraph 4.9:

**‘Recommendation X**

The Committee encourages the NSW Government to implement the NSW Gas Plan and the regulatory framework to support the Plan following the implementation of the Chief Scientist’s recommendations.

Question put and negatived.

Mr Buckingham left the meeting.

Mr Searle moved: That the following new recommendation be inserted in the new committee comment after paragraph 4.9:

**‘Recommendation X**

That the New South Wales Government must fully implement the Chief Scientist’s report before any expansion of the CSG industry in NSW is contemplated.

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

There being an equality of votes, question resolved in the affirmative on the casting vote of the Chair.

Mr Buckingham rejoined the meeting.

Resolved, on the motion of Mr Searle: That the following new paragraphs be inserted into a greyed-out box after paragraph 4.7:

The Chief Scientist's recommendations 3-16 were:

3. Strengthened protections and benefits for land owners around access, valuation and compensation;
4. Recovery of full cost to government of regulation and support of the CSG industry, reported through the State Budget process;
5. The development and designation of areas where CSG activity is permitted and where it is not;
6. A single Act for all onshore subsurface resources, excluding water;
7. Separation of the process for allocating rights to exploit subsurface resources from regulation of the activities to give effect to that exploitation, with a single, independent regulator;
8. A new regulatory system focussed on continually updated environmental impact and safety targets, to drive the adoption of new technology and innovation; appropriate penalties and automatic monitoring systems that detect cumulative environmental impacts;
9. The development of insurance arrangements to cover short and long-term environmental damage;
10. The development of an open, interactive Whole-of-Environment Data Repository for all State environmental data associated with water management, gas extraction, mining, manufacturing, and chemical processing activities;
11. A centralised Risk Management and Prediction Tool for all extractive industries in NSW, to be used to assess compliance and new proposals;
12. A Standing Body of Experts from across relevant disciplines to advise Government on the overall impact of CSG through a published Annual Statement;
13. CSG extraction proponents to identify impacts on water resources, pathways, consequences and likelihood, baseline conditions and risk triggers prior to any activity commencement;
14. Government to ensure ongoing mandatory training, accreditation and certification for all working in the CSG industry, including compliance, inspection and audit functions;
15. Comprehensive legacy planning to cover the full and safe decommissioning of wells and the transitioning of existing projects to the new regulatory system; and
16. Consideration of alignment of laws and regulations governing methane and other gas extraction in coal mining with laws and regulations governing CSG production.

Dr Phelps moved: That the following new committee comment be inserted after paragraph 4.9:

'The Committee notes the gulf between the desired outcomes of the NSW Gas Plan and the measures put in place to achieve those outcomes. The former seeks "secure, affordable and sustainable supplies" of gas. However, the actions outlined in the dot points of paragraph 4.4 may be summarised thus: blocking exploration, closing off areas, increasing EPA interference, prying into the financial affairs of producers, demand reduction strategies, development only on government-mandated time schedules; and increased costs to pay out landholders. The Committee find it hard to think of any set of policy prescriptions, short of the direct nationalisation of gas firms, that is less likely to encourage investment in this industry'.

Question put.

The committee divided.

Ayes: Dr Phelps.

Noes: Mr Blair, Mr Borsak, Mr Buckingham, Mr MacDonald, Mr Searle, Mr Veitch.

Question resolved in the negative.

Resolved, on the motion of Mr Searle: That paragraph 4.18 be amended by inserting 'present' before 'Australian Government'.

Mr MacDonald moved: That paragraph 4.18 be amended by inserting at the end:

'Nevertheless in hearings before the Committee, the Institute's Chief Economist acknowledged:

**Mr SCOT MacDONALD:** I am talking about industries. If we put restraints on exports, if we put restraints on supply, surely you are effectively engaging in protectionism and picking winners.

**Mr GRUDNOFF:** Certainly, if you were to do that for industry and commercial interests you are picking winners, and the Government should be extremely careful in any kind of industry policy of that nature. If you are talking about residential customers, then I think the Government has a broader role than just what is necessarily the most economically efficient thing to do. It should consider, for example, poorer households and protecting them from these sort of price increases.'

Question put.

The committee divided.

Ayes: Mr Blair, Mr MacDonald, Dr Phelps.

Noes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the negative.

Resolved, on the motion of Mr Buckingham: That the following new paragraphs be inserted after paragraph 4.38:

'The interconnected nature of the east coast network and the geographical distribution of gas resources, means any domestic gas reservation policy would be most successfully implemented at a national level across the east coast network, as either a condition of export approval or as an agreement at COAG.

The committee notes that many other gas exporting countries have some kind of reservation policy or national interest test to protect domestic gas markets from the negative effects of gas exports.

The committee expresses its disappointment that no-one appears to have recognised the significant disruption that the move to LNG export would have on the domestic gas market.'

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.38:

**'Recommendation X**

The committee recommends that before any further gas export approvals are made, that the federal and state governments assess the potential impact on the domestic gas market and other sectors of the economy, and put in place appropriate policies and strategies to ameliorate these potential impacts.'

Question put and negatived.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.38:

**'Recommendation X**

The committee recommends that the NSW government requires the disclosure of the details of gas export contracts to the government on a confidential basis, for those companies wanting to do business in NSW.'

Question put and negatived.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.38:

**‘Recommendation X**

The committee recommends that the NSW Government review pipeline capacity for conventional gas supplies from Victoria and support improved capacity if and where appropriate.’

Question put and negatived.

Resolved, on the motion of Mr Searle: That paragraph 4.39 be amended by inserting at the end: ‘and all the other scientific, legal, financial, safety and other regulatory challenges set out in her recommendations.’

Mr Buckingham moved: That paragraph 4.39 be omitted.

Question put.

The committee divided.

Ayes: Mr Buckingham.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr Buckingham moved: That the following paragraph be inserted after paragraph 4.39:

The committee notes that gas prices can have a big impact on the viability and investment decisions of companies in the manufacturing sectors and other sectors. The committee also notes that the manufacturing sector continues to be a large employer and is more labour intensive than the gas extraction and export sector.’

Question put and negatived.

Mr Buckingham left the meeting.

Mr Searle moved: That

- a) paragraph 4.40 be omitted: ‘The committee notes the evidence received outlining concerns that a domestic gas reservation policy will deter investment in the gas industry and increase prices. However, given the importance of gas to New South Wales households and industry, particularly manufacturing businesses, and the changing dynamics of the eastern Australian gas market, the committee considers that a domestic gas reservation policy is needed to assist in containing gas prices and ensuring security of supply’,
- b) and the following new paragraph be inserted instead: ‘The committee notes the evidence received from the industry outlining concerns that a domestic gas reservation policy will deter investment in the gas industry and increase prices. We note this evidence is hardly disinterested and is self-serving on the part of those who stand most to gain from there being no reservation policy. However, given the importance of gas to New South Wales households and industry, particularly manufacturing businesses, and the changing dynamics of the eastern Australian gas market, the committee considers that an Australia-wide domestic gas reservation policy is needed to assist in containing gas prices and ensuring security of supply.’

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

There being an equality of votes, question resolved in the affirmative on the casting vote of the Chair.

Dr Phelps moved: That paragraph 4.40 be omitted.

Question put.

The committee divided.

Ayes: Mr Blair, Mr MacDonald, Dr Phelps.

Noes: Mr Borsak, Mr Searle, Mr Veitch.

There being an equality of votes, question resolved in the negative on the casting vote of the Chair.

Dr Phelps moved: That

- a) paragraph 4.41 be omitted: 'The committee acknowledges that Santos and AGL have publicly committed to make any gas produced at their Gloucester and Narrabri projects available for use by NSW households and businesses. The committee welcomes these commitments but considers that they should be formalised by way of a reservation policy. Such a policy need only be a formalisation of these existing voluntary commitments.'
- b) and the following new paragraph be inserted instead: 'The committee acknowledges that Santos and AGL have publicly committed to make any gas produced at their Gloucester and Narrabri projects available for use by NSW households and businesses. The committee welcomes these commitments and therefore considers a legislated gas reservation policy to be unnecessary.'

Question put.

The committee divided.

Ayes: Mr Blair, Mr MacDonald, Dr Phelps.

Noes: Mr Borsak, Mr Searle, Mr Veitch.

There being an equality of votes, question resolved in the negative on the casting vote of the Chair.

Mr Buckingham re-joined the meeting.

Mr Searle moved: That

- a) paragraph 4.42 be omitted: 'The committee stresses that the state's gas is a resource ultimately owned by its people, and any expansion of the CSG industry should be to the benefit of NSW households and businesses',
- b) and the following new paragraphs be inserted instead:

'The committee stresses that gas is a resource ultimately owned by the people. While private commercial interests that develop the resource are entitled to a reasonable return on investment, those interests cannot be allowed to advantage themselves at the cost of energy security and affordability for ordinary citizens and businesses. This should be the case whether we are speaking as a state or a country.

With gas now being produced in Australia on a scale that completely eclipses any demand by domestic residential or industrial users, [FOOTNOTE: Melbourne Energy Institute The dash from gas: Could demand in NSW fall to half?, January 2015, p15] any difficulty with supply or increased price can only be as a result of rent-seeking by private interests, allowed by market and regulatory failures. Governments in this State and other jurisdictions should take action to prevent, or remedy this occurring.'

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Mr Phelps.

Question resolved in the affirmative.

Mr Buckingham left the meeting.

Mr Searle moved: That the following new paragraph be inserted after paragraph 4.42:

‘Any expansion of the CSG industry in NSW should only occur if it can be undertaken safely in accordance with the Chief Scientist’s recommendations and to the benefit of NSW households and businesses.’

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

There being an equality of votes, question resolved in the affirmative on the casting vote of the Chair.

Mr Buckingham re-joined the meeting.

Dr Phelps moved: That paragraph 4.42 be amended by inserting at the end: ‘in line with the Socialist Objective of the nationalisation of the means of production and distribution’.

Question put.

The committee divided.

Ayes: Mr Blair, Mr Macdonald, Dr Phelps.

Noes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the negative.

Resolved, on the motion of Mr Searle: That

- a) paragraph 4.43 be omitted: ‘The committee therefore recommends that should the CSG industry progress in New South Wales, that the NSW Government introduce a domestic gas reservation policy to set aside a proportion of the gas produced for domestic use’ and
- b) Recommendation 2 be omitted: ‘That the New South Wales Government, should the CSG industry progress in New South Wales, introduce a domestic gas reservation policy to set aside a proportion of the gas produced for domestic use in this state.’

Dr Phelps moved: That paragraph 4.42 , as amended, be omitted.

Question put and negatived.

Mr Buckingham left the meeting.

Mr Searle moved: That the following paragraph and recommendation be inserted after paragraph 4.43:

‘While the recommendations of the Chief Scientist are being implemented, the NSW Government should pursue through COAG the implementation of an Australia-wide domestic gas reservation policy.’

#### **Recommendation X**

The committee recommends that while the recommendations of the Chief Scientist are being implemented, the NSW Government pursue through the Council of Australian Governments the implementation of an Australia-wide domestic gas reservation policy.’

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

There being an equality of votes, question resolved in the affirmative on the casting vote of the Chair.

Mr Searle moved: That the following paragraph be inserted after the new committee comment and recommendation inserted after paragraph 4.43:

‘If it is the case that the private commercial interests that have developed and are developing this resource can sell the product overseas for a significantly higher price, and/or are using this possibility to increase prices exponentially, difficulties of supply or affordability will afflict both residential and commercial gas users, regardless of the physical availability of supply in other jurisdictions.

Only action by government will address this. The market by itself cannot, because of its increasing exposure to an international price for gas.’

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

Question resolved in the affirmative.

## 6. Adjournment

The meeting adjourned at 4.05 pm until 12.30 pm Monday 23 February 2015.

Madeleine Foley

**Clerk to the Committee**

## Draft minutes no. 7

Monday 23 February 2015

Select Committee on the Supply and Cost of Gas and Liquid Fuels in New South Wales  
Room 1254, Parliament House, Sydney at 12.30 pm

### 1. Members present

Mr Borsak, *Chair*

Mr Buckingham, *Deputy Chair*

Mr Blair

Mr MacDonald

Dr Phelps

Mr Searle

Mr Veitch

### 2. Previous minutes

Resolved, on the motion of Mr MacDonald: That draft minutes no 6 be confirmed.

### 3. Consideration of Chair’s draft report

The committee continued its consideration of the Chair’s draft report, entitled *The supply and cost of gas and liquid fuels in New South Wales*.

**Chapter 4**

Mr MacDonald moved: That the following new committee comment be inserted after paragraph 4.40:

‘The committee took compelling evidence ‘Resource reservation’ is not an efficient economic strategy. Additionally there are significant regulatory barriers to implementing a State based reservation system that operates in a national market.’

Question put.

The committee divided.

Ayes: Mr Blair, Mr MacDonald, Dr Phelps.

Noes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the negative.

Dr Phelps moved: That paragraph 4.48 be amended by inserting at the end: ‘presumably by spending large amounts of taxpayers’ money in the process of preference substitution initiatives and capital replacements costs.’

Question put.

The committee divided.

Ayes: Mr Blair, Mr MacDonald, Dr Phelps.

Noes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr Searle moved: That the following new paragraph be inserted after paragraph 4.48:

‘The committee notes that New South Wales has a 20 per cent target for energy from renewable sources by 2020, but that this is not mandated by law.’

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

Question resolved in the affirmative.

Mr Searle moved: That paragraph 4.52 be amended by omitting: ‘In addition to developing CSG reserves,’ before ‘the committee heard of other ways to secure the state’s energy supplies.’

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

Question resolved in the affirmative.

Dr Phelps moved: That paragraph 4.52 be amended by inserting ‘ all of which would impose a larger financial burden on taxpayers and energy consumers than the development of an indigenous CSG industry in New South Wales.’ after ‘ the committee heard of other ways to secure the state’s energy supplies.’

Question put.

The committee divided.

Ayes: Mr Blair, Mr MacDonald, Dr Phelps.

Noes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the negative.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

To assist in the development of other sources of energy, the Committee recommends the NSW Government develop contingent legislation that provides a guarantee that in the event of any future change to the federal Renewable Energy Target, no renewable energy generator in NSW would be worse off.

Further, that the NSW Government implement policies and strategies to facilitate a complete phase out of fossil fuels, including gas, for energy generation and other purposes by 2030.’

Question put.

The committee divided.

Ayes: Mr Buckingham.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps, Mr Searle, Mr Veitch.

Question resolved in the negative.

Dr Phelps moved: That paragraph 4.52 be amended to insert the following at the end of the last sentence ‘but not at the expense of using cheaper forms of existing supplies, where available.’

Question put.

The committee divided.

Ayes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Noes: Mr Buckingham, Mr Searle, Mr Veitch.

Question resolved in the affirmative.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

‘The committee recommends that the NSW government develops programs, policies and strategies that facilitate households, businesses, the public sector and industry transitioning from gas and fossil fuels to high efficiency energy use and renewable forms of local energy generation, including the provision of low interest loans, independent technical advice and benefit sharing schemes.’

Question put and negated.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

The committee recommends that the NSW Government undertake detailed, segmented analysis of the financial impacts of rising gas prices on low-income and vulnerable households in NSW.

This analysis should include detailed analysis of the extent to which gas is used in:

- NSW public housing and the cost impacts for residents (over 5 and 10 year timeframes)
- community housing and the cost impacts for residents
- low-income rental housing and the cost impacts for residents.’

Question put.

The committee divided.

Ayes: Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr Borsak, Mr MacDonald, Dr Phelps.

Question resolved in the negative.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

The committee recommends that the NSW Government undertake detailed research into the barriers and opportunities related to disconnecting from gas for residential consumers, especially public and community housing tenants and low-income renters.’

Question put and negatived.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

The committee recommends the NSW Government develop policies and programs to support improved uptake of renewable energy technologies by low-income households.’

Dr Phelps moved: That the motion of Mr Buckingham be amended by inserting ‘,by spending vast amount of taxpayers’ money,’ before ‘develop’.

Amendment of Dr Phelps put and negatived.

Original question of Mr Buckingham put and negatived.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

The committee recommends the NSW Government develop policies and fund programs to support improved energy efficiency by NSW households, especially dedicated support for low-income households.’

Question put and negatived.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

The Committee recommends that the NSW Government provide NSW households with accurate information on the relative costs of electrical and gas systems for cooking, hot water heating and space heating, and encourage people to switch to efficient electrical systems where it is cost effective to do so.’

Question put and negatived.

Mr Buckingham moved: That the following new recommendation be inserted after paragraph 4.52:

**‘Recommendation X**

The committee recommends that the NSW Government facilitate identification and financing of energy efficiency and economic fuel switching alternatives to gas use in the commercial and industrial sectors.’

Mr Searle moved: That the motion of Mr Buckingham be amended by omitting ‘and financing’ after ‘NSW Government facilitate identification’.

Amendment of Mr Searle put and negatived.

Original question of Mr Buckingham put and negatived.

Dr Phelps moved: That paragraph 4.65 be amended by inserting ‘This can be largely attributed to the raft of draconian environmental and planning laws and regulations which have made it virtually impossible for any new Australian oil refinery to be built, or for existing refineries to be refurbished to a standard which would make them internationally competitive with new refineries in countries near Australia.’ after ‘the closure of the Clyde and Kurnell refineries.’

Question put and negatived.

Mr Buckingham moved: That the draft report as amended be the report of the committee and that the committee present the report to the House.

Question put.

The committee divided.

Ayes: Mr Borsak, Mr Buckingham, Mr Searle, Mr Veitch.

Noes: Mr Blair, Mr MacDonald, Dr Phelps.

Question resolved in the affirmative.

#### 4. Consideration of revised Chair’s draft report

The committee considered the revised Chair’s draft report, previously circulated, which had been updated to reflect the amendments made by members at the last meeting.

##### Recommendations – revised

Resolved, on the motion of Mr Searle: That Recommendations 1, 2 and 4 be amended as follows: ‘That the Minister for Resources and Energy, through the Energy Council of the Council of Australian Governments, ...’.

##### Chapter 2 – revised

Resolved, on the motion of Dr Phelps: That revised paragraph 2.49 be amended by omitting ‘This is the consequence of a long-insulated market being linked to the global price via exports.’

##### Chapter 3 – revised

Resolved, on the motion of Mr Searle: That paragraph 3.50 be inserted after paragraph 3.6.

Resolved, on the motion of Mr Searle: That the committee comment following paragraph 3.50 be amended as follows, with the exception of any footnotes, which will remain the same:

a) The following paragraphs be omitted:

##### ‘Committee comment

The committee acknowledges the two divergent arguments regarding future developments in the New South Wales gas market. It is difficult for the committee to reconcile two such deviating forecasts. However, we note that the NSW Government is working to a scenario whereby regardless of declining demand, there will be gas supply pressures which are expected to negatively impact the state’s households and businesses.

It is imperative that the NSW Government does what it can, consistent with a market economy, to secure a reliable and affordable supply of gas for New South Wales, particularly given the important contribution it makes to the state’s manufacturing businesses.

To that end, the NSW Government is seeking to develop the state’s indigenous gas reserves in the expectation that increased supply will place downward pressure on prices thus benefiting households and businesses alike. However, the argument that the gas industry wants access to the state’s gas reserves so that it may take advantage of higher prices on offer internationally, or use the spectre of this to simply increase price, is difficult to ignore. The committee believes that adequate safeguards must be developed to establish

a competitive domestic price and guaranteed domestic supply. The measures by which this may be achieved are considered below in this section and also in chapter 4.

The more impartial, economic evidence before this committee leads us to favour the proposition that increased domestic supply of gas will not by itself lead to reductions in gas prices, or even a reduction in the rate of price increases. This is because the predominant driver of domestic gas prices will be the international gas price and an indigenous NSW gas supply would be very small in the context of the world gas market and will not impact upon the world price. This means that government regulation of the gas market will be necessary to have a significant impact on price or to guarantee domestic supply.

There is, however, a significant public policy controversy over the extraction of coal seam gas in New South Wales. The report of the New South Wales Chief Scientist and Engineer, Professor Mary O'Kane in September 2014 sets out in her recommendations a significant body of work that has not been done to date regarding substantial additional scientific research on the impacts of CSG extraction, and regulatory and legislative reform. On any analysis, the body of work she says government needs to do, without which there is no prospect of CSG being environmentally safe in NSW, is very substantial. This matter is discussed more fully later in this report at paragraph 4.XX and following.'

b) The following paragraphs be inserted instead:

**'Committee comment**

The committee acknowledges the two divergent arguments regarding future developments in the New South Wales gas market. We note that the NSW Government is working to a scenario whereby regardless of declining demand, there will be gas supply pressures which are expected to negatively impact the state's households and businesses.

It is imperative that the NSW Government does what it can, consistent with a market economy, to secure a reliable and affordable supply of gas for New South Wales, particularly given the important contribution it makes to the state's manufacturing businesses. To that end, the NSW Government is seeking to develop the state's indigenous gas reserves in the expectation that increased supply will place downward pressure on prices thus benefiting households and businesses alike.

There is, however, a significant public policy controversy over the extraction of coal seam gas in NSW. The report of the New South Wales Chief Scientist and Engineer, Professor Mary O'Kane in September 2014 sets out in her recommendations a significant body of work that has not been done to date regarding substantial additional scientific research on the impacts of CSG extraction, and regulatory and legislative reform. On any analysis, the body of work she says government needs to do, without which there is no prospect of CSG being environmentally safe in NSW, is very substantial. This matter is discussed more fully later in this report at paragraph 4.XX and following.

The argument that the gas industry wants access to the state's gas reserves so that it may take advantage of higher prices on offer internationally, or use the spectre of this to simply increase price, is difficult to ignore. The committee believes that adequate safeguards must be developed to establish a competitive domestic price and guaranteed domestic supply. The measures by which this may be achieved are considered below in this section and also in chapter 4.

The more impartial, economic evidence before this committee leads us to favour the proposition that increased domestic supply of gas will not by itself lead to reductions in gas prices, or even a reduction in the rate of price increases. This is because the predominant driver of domestic gas prices will be the international gas price and an indigenous NSW gas supply would be very small in the context of the world gas market and will not impact upon the world price. This means that government regulation of the gas market will be necessary to have a significant impact on price or to guarantee domestic supply.'

Resolved, on the motion of Mr Searle: That the secretariat endeavour to identify evidence concerning the greater degree of information available through the National Electricity Market and insert this evidence following paragraph 3.58.

## Chapter 4 – revised

Resolved, on the motion of Mr Searle: That the sections following paragraph 4.3 be amended as follows, with the exception of any footnotes, which will remain the same:

a) The following paragraphs be omitted:

### **NSW Gas Plan**

The NSW Government outlined its strategy to progress the state's gas industry in its *NSW Gas Plan* released in November 2014. The Plan states that the Government's key objective of in relation to gas supply is 'to secure, reliable, affordable and sustainable [gas] supplies for NSW households and businesses'. To that end, the *NSW Gas Plan* sets out a number of actions the Government will undertake to achieve this objective. These actions include:

- maintaining the freeze on the issuing of gas exploration licences and extinguishing all current licence applications via a one-off government buy back
- introducing a new Strategic Release Framework to control the release of gas exploration areas from 1 July 2015 – the framework will involve an assessment of the economic, environmental and social factors pertaining to proposed exploration projects
- appointing the Environment Protection Authority (EPA) as the lead regulator for gas exploration and production
- requesting that gas companies voluntarily disclose information about their gas supply arrangements and make such information public
- supporting households and businesses to use gas more efficiently to help reduce their bills and relieve pressure on overall gas supplies
- implementing a 'use it or lose it' policy requiring current gas licence holders to commit to developing their resource or risk losing their title
- drafting legislation to ensure that landholders who host gas development receive compensation for exploration and production.

In evidence, the Hon Anthony Roberts MP, Minister for Energy and Resources, advised that the NSW Government views the Plan as a 'critical first step to securing our gas supplies as well as protecting our natural resources and ensuring a stronger outlook for New South Wales gas users'.

Through the *NSW Gas Plan*, the Government has made a commitment to accept all the recommendations contained in the final report of the Independent Review of Coal Seam Gas Activities in NSW, released in September 2014.

The report was prepared by the state's Chief Scientist and Engineer, Professor Mary O'Kane, who in 2013 was directed by the former Premier, the Hon Barry O'Farrell MP to conduct a review of CSG activities. The final report contained 16 recommendations and a number of findings. The key conclusion was that the challenges and risks associated with CSG activities can generally be managed through a number of measures. The report stated:

Having considered all the information from these sources and noting the rapid evolution of technological developments applicable to CSG from a wide range of disciplines, the Review concluded that the technical challenges and risks posed by the CSG industry can in general be managed through:

- careful designation of areas appropriate in geological and land-use terms for CSG extraction
- high standards of engineering and professionalism in CSG companies
- creation of a State Whole-of-Environment Data Repository so that data from CSG industry operations can be interrogated as needed and in the context of the wider environment
- comprehensive monitoring of CSG operations with ongoing automatic scrutiny of the resulting data
- a well-trained and certified workforce, and

- application of new technological developments as they become available.

The Chief Scientist's recommendations 3-16 are outlined below.

#### **Independent Review of Coal Seam Gas Activities in NSW: Recommendations 3-16**

3. Strengthened protections and benefits for land owners around access, valuation and compensation;
4. Recovery of full cost to government of regulation and support of the CSG industry, reported through the State Budget process;
5. The development and designation of areas where CSG activity is permitted and where it is not;
6. A single Act for all onshore subsurface resources, excluding water;
7. Separation of the process for allocating rights to exploit subsurface resources from regulation of the activities to give effect to that exploitation, with a single, independent regulator;
8. A new regulatory system focussed on continually updated environmental impact and safety targets, to drive the adoption of new technology and innovation; appropriate penalties and automatic monitoring systems that detect cumulative environmental impacts;
9. The development of insurance arrangements to cover short and long-term environmental damage;
10. The development of an open, interactive Whole-of-Environment Data Repository for all State environmental data associated with water management, gas extraction, mining, manufacturing, and chemical processing activities;
11. A centralised Risk Management and Prediction Tool for all extractive industries in NSW, to be used to assess compliance and new proposals;
12. A Standing Body of Experts from across relevant disciplines to advise Government on the overall impact of CSG through a published Annual Statement;
13. CSG extraction proponents to identify impacts on water resources, pathways, consequences and likelihood, baseline conditions and risk triggers prior to any activity commencement;
14. Government to ensure ongoing mandatory training, accreditation and certification for all working in the CSG industry, including compliance, inspection and audit functions;
15. Comprehensive legacy planning to cover the full and safe decommissioning of wells and the transitioning of existing projects to the new regulatory system; and
16. Consideration of alignment of laws and regulations governing methane and other gas extraction in coal mining with laws and regulations governing CSG production.

Professor O'Kane went on to say, however, that:

All of this needs to take place within a clear, revised, legislative framework which is supported by an effective and transparent reporting and compliance regime and by drawing on appropriate expert advice.

It is the development of this regulatory and legal framework that is set out in her recommendations 3-16. However, what Professor O'Kane provides is a narrative road map, not a detailed, scientific plan of how to achieve the outcomes she says are needed.

It is worth noting that while some have claimed the Chief Scientist says the CSG industry can be operated safely, this is clearly in the context of her recommendations being implemented *in full* and *before* the industry is pursued further. Even so, Professor O'Kane warns:

...the detailed hydrogeology is not yet fully characterised, there could be unexpected events, learnings, or even accidents. This is common for new applications in the extractive industries ... It also highlights the need to record and capitalise on the data and knowledge gained from CSG extraction activities in new regions and to take advantage of new technology developments which, if harnessed appropriately, can make CSG production **increasingly safer** and more efficient **over time**. (Emphasis added)

In evidence, Minister Roberts repeated the NSW Government's commitment to implement all the Chief Scientist's recommendations:

The Government is working through the New South Wales Gas Plan to implement all of the Chief Scientist's recommendations and make sure any onshore gas industry develops under our terms.

In his evidence to this committee, Minister Roberts was asked to provide an update on the NSW Government's implementation of the recommendations of the Chief Scientist and the timeframes for their full implementation. The answer provided on notice failed to provide any timeframe for the implementation of the Chief Scientist's recommendations. The committee finds this response unhelpful and casts doubt on the commitment of the NSW Government to implement the report of the Chief Scientist.

One of the additional undertakings the NSW Government has made in the *NSW Gas Plan* is to ensure that landholders and communities benefit from gas exploration and production. To achieve this, the *NSW Gas Plan* sets out a number of actions.

- Legislation will be introduced to ensure landholders receive compensation for exploration and production.
- The Independent Pricing and Regulatory Tribunal (IPART) will be commissioned to provide annual benchmark compensation rates to assist landholders to negotiate appropriate compensation for CSG activity on their land.
- A Community Benefits Fund will be established where gas companies and the NSW Government can make voluntary contributions.

#### **Committee comment**

In the committee's view, the report of the Chief Scientist and Engineer is hardly a ringing endorsement of CSG or even a real claim it can be pursued safely and without harm to our precious water resources, environment and farming lands. That committee finds that the NSW Government must fully implement the Chief Scientist's report before any expansion of the CSG industry in NSW is contemplated.

#### **Recommendation 3**

That the New South Wales Government must fully implement the Chief Scientist's report before any expansion of the CSG industry in NSW is contemplated.'

- b) The following paragraphs be inserted instead:

#### **NSW Gas Plan**

The NSW Government outlined its strategy to progress the state's gas industry in its *NSW Gas Plan* released in November 2014. The Plan states that the Government's key objective of in relation to gas supply is 'to secure, reliable, affordable and sustainable [gas] supplies for NSW households and businesses'. To that end, the *NSW Gas Plan* sets out a number of actions the Government will undertake to achieve this objective. These actions include:

- maintaining the freeze on the issuing of gas exploration licences and extinguishing all current licence applications via a one-off government buy back
- introducing a new Strategic Release Framework to control the release of gas exploration areas from 1 July 2015 – the framework will involve an assessment of the economic, environmental and social factors pertaining to proposed exploration projects
- appointing the Environment Protection Authority (EPA) as the lead regulator for gas exploration and production
- requesting that gas companies voluntarily disclose information about their gas supply arrangements and make such information public
- supporting households and businesses to use gas more efficiently to help reduce their bills and relieve pressure on overall gas supplies

- implementing a ‘use it or lose it’ policy requiring current gas licence holders to commit to developing their resource or risk losing their title
- drafting legislation to ensure that landholders who host gas development receive compensation for exploration and production.

Another undertaking the NSW Government has made in the *NSW Gas Plan* is to ensure that landholders and communities benefit from gas exploration and production. To achieve this, the *NSW Gas Plan* sets out a number of actions.

- Legislation will be introduced to ensure landholders receive compensation for exploration and production.
- The Independent Pricing and Regulatory Tribunal (IPART) will be commissioned to provide annual benchmark compensation rates to assist landholders to negotiate appropriate compensation for CSG activity on their land.
- A Community Benefits Fund will be established where gas companies and the NSW Government can make voluntary contributions.

In evidence, the Hon Anthony Roberts MP, Minister for Energy and Resources, advised that the NSW Government views the Plan as a ‘critical first step to securing our gas supplies as well as protecting our natural resources and ensuring a stronger outlook for New South Wales gas users’.

Through the *NSW Gas Plan*, the Government has made a commitment to accept all the recommendations contained in the final report of the Independent Review of Coal Seam Gas Activities in NSW, released in September 2014.

The report was prepared by the state’s Chief Scientist and Engineer, Professor Mary O’Kane, who in 2013 was directed by the former Premier, the Hon Barry O’Farrell MP to conduct a review of CSG activities. The final report contained 16 recommendations and a number of findings. The key conclusion was that the challenges and risks associated with CSG activities can generally be managed through a number of measures. The report stated:

Having considered all the information from these sources and noting the rapid evolution of technological developments applicable to CSG from a wide range of disciplines, the Review concluded that the technical challenges and risks posed by the CSG industry can in general be managed through:

- careful designation of areas appropriate in geological and land-use terms for CSG extraction
- high standards of engineering and professionalism in CSG companies
- creation of a State Whole-of-Environment Data Repository so that data from CSG industry operations can be interrogated as needed and in the context of the wider environment
- comprehensive monitoring of CSG operations with ongoing automatic scrutiny of the resulting data
- a well-trained and certified workforce, and
- application of new technological developments as they become available.

The Chief Scientist's recommendations 3-16 are outlined below.

**Independent Review of Coal Seam Gas Activities in NSW: Recommendations 3-16**

3. Strengthened protections and benefits for land owners around access, valuation and compensation;
4. Recovery of full cost to government of regulation and support of the CSG industry, reported through the State Budget process;
5. The development and designation of areas where CSG activity is permitted and where it is not;
6. A single Act for all onshore subsurface resources, excluding water;
7. Separation of the process for allocating rights to exploit subsurface resources from regulation of the activities to give effect to that exploitation, with a single, independent regulator;
8. A new regulatory system focussed on continually updated environmental impact and safety targets, to drive the adoption of new technology and innovation; appropriate penalties and automatic monitoring systems that detect cumulative environmental impacts;
9. The development of insurance arrangements to cover short and long-term environmental damage;
10. The development of an open, interactive Whole-of-Environment Data Repository for all State environmental data associated with water management, gas extraction, mining, manufacturing, and chemical processing activities;
11. A centralised Risk Management and Prediction Tool for all extractive industries in NSW, to be used to assess compliance and new proposals;
12. A Standing Body of Experts from across relevant disciplines to advise Government on the overall impact of CSG through a published Annual Statement;
13. CSG extraction proponents to identify impacts on water resources, pathways, consequences and likelihood, baseline conditions and risk triggers prior to any activity commencement;
14. Government to ensure ongoing mandatory training, accreditation and certification for all working in the CSG industry, including compliance, inspection and audit functions;
15. Comprehensive legacy planning to cover the full and safe decommissioning of wells and the transitioning of existing projects to the new regulatory system; and
16. Consideration of alignment of laws and regulations governing methane and other gas extraction in coal mining with laws and regulations governing CSG production.<sup>194</sup>

Despite her conclusion that the challenges and risks associated with CSG activities can be generally managed through a number of measures, Professor O'Kane went on to say, however, that:

All of this needs to take place within a clear, revised, legislative framework which is supported by an effective and transparent reporting and compliance regime and by drawing on appropriate expert advice.

<sup>194</sup> New South Wales Government, Chief Scientist and Engineer, Final Report of the Independent Review of Coal Seam Gas Activities in NSW, September 2014, pp 12-15.

It is the development of this regulatory and legal framework that is set out in her recommendations 3-16. Even while she concluded that challenges and risks associated with CSG activities can generally be managed, Professor O’Kane warns:

...the detailed hydrogeology is not yet fully characterised, there could be unexpected events, learnings, or even accidents. This is common for new applications in the extractive industries ... It also highlights the need to record and capitalise on the data and knowledge gained from CSG extraction activities in new regions and to take advantage of new technology developments which, if harnessed appropriately, can make CSG production **increasingly safer** and more efficient **over time**. (Emphasis added)

In evidence, Minister Roberts repeated the NSW Government’s commitment to implement all the Chief Scientist’s recommendations:

The Government is working through the New South Wales Gas Plan to implement all of the Chief Scientist’s recommendations and make sure any onshore gas industry develops under our terms.

Minister Roberts was also asked to provide an update on the NSW Government’s implementation of the recommendations of the Chief Scientist and the timeframes for their full implementation. The answer, provided on notice, failed to provide any timeframe for the implementation of the Chief Scientist’s recommendations.

### **Committee comment**

The committee finds that what Professor O’Kane provides in her report is a narrative road map, not a detailed, scientific plan of how to achieve the outcomes she says are needed. It is worth noting that while some have claimed the Chief Scientist says the CSG industry can be operated safely, this is clearly in the context of her recommendations being implemented *in full* and *before* the industry is pursued further.

The committee notes that the Minister did not provide timeframes for the full implementation of the Chief Scientist’s recommendations. The committee finds this response unhelpful and casts doubt on the commitment of the NSW Government to implement the report of the Chief Scientist.

In the committee’s view, the report of the Chief Scientist and Engineer is hardly a ringing endorsement of CSG or even a real claim it can be pursued safely and without harm to our precious water resources, environment and farming lands. That committee finds that the NSW Government must fully implement the Chief Scientist’s report before any expansion of the CSG industry in NSW is contemplated.

### **Recommendation 3**

That the New South Wales Government fully implement the Chief Scientist’s report before any expansion of the coal seam gas industry in New South Wales is contemplated.’

Resolved, on the motion of Mr Veitch: That the committee comment following paragraph 4.43 be amended as follows, with the exception of any footnotes, which will remain the same:

a) The following paragraphs be omitted:

#### **‘Committee comment**

Energy security is essential for households and businesses. Given the changes to the eastern Australian gas market the committee is concerned about the impact this will have on New South Wales gas consumers, in terms of securing supply at an affordable price.

The interconnected nature of the east coast network and the geographical distribution of gas resources, means any domestic gas reservation policy would be most successfully implemented at a national level across the east coast network, as either a condition of export approval or as an agreement at COAG.

The committee notes that many other gas exporting countries have some kind of reservation policy or national interest test to protect domestic gas markets from the negative effects of gas exports.

The committee expresses its disappointment that no-one appears to have recognised the significant disruption that the move to LNG export would have on the domestic gas market.

The committee is encouraged that the NSW Government has committed to address the state's future energy security challenges. The committee supports the chief objective of the NSW Gas Plan: 'to secure reliable, affordable and sustainable [gas] supplies'. Given that the terms of reference for this inquiry did not extend to considering the impacts of CSG activity, we simply note that if the CSG industry progresses in New South Wales, as proposed in the NSW Gas Plan, it must be pursued in accordance with the Chief Scientist's recommendations and address landholder rights, and all the other scientific, legal, financial, safety and other regulatory challenges set out in her recommendations.

The committee notes the evidence received from the industry outlining concerns that a domestic gas reservation policy will deter investment in the gas industry and increase prices. We note this evidence is hardly disinterested and is self-serving on the part of those who stand most to gain from there being no reservation policy. However, given the importance of gas to New South Wales households and industry, particularly manufacturing businesses, and the changing dynamics of the eastern Australian gas market, the committee considers that an Australia-wide domestic gas reservation policy is needed to assist in containing gas prices and ensuring security of supply.

The committee acknowledges that Santos and AGL have publicly committed to make any gas produced at their Gloucester and Narrabri projects available for use by NSW households and businesses. The committee welcomes these commitments but considers that they should be formalised by way of a reservation policy. Such a policy need only be a formalisation of these existing voluntary commitments.

The committee stresses that gas is a resource ultimately owned by the people. While private commercial interests that develop the resource are entitled to a reasonable return on investment, those interests cannot be allowed to advantage themselves at the cost of energy security and affordability for ordinary citizens and businesses. This should be the case whether we are speaking as a state or a country.

With gas now being produced in Australia on a scale that completely eclipses any demand by domestic residential or industrial users, any difficulty with supply or increased price can only be as a result of rent-seeking by private interests, allowed by market and regulatory failures. Governments in this State and other jurisdictions should take action to prevent, or remedy this occurring.

Any expansion of the CSG industry in NSW should only occur if it can be undertaken safely in accordance with the Chief Scientist's recommendations and to the benefit of NSW households and businesses.

The committee finds that while the recommendations of the Chief Scientist are being implemented, the NSW Government should pursue through COAG the implementation of an Australia-wide domestic gas reservation policy.

#### **Recommendation 4**

That the NSW Government pursue through the Council of Australian Governments the implementation of an Australia-wide domestic gas reservation policy, while the recommendations of the Chief Scientist are being implemented.

If it is the case that the private commercial interests that have developed and are developing this resource can sell the product overseas for a significantly higher price, and/or are using this possibility to increase prices exponentially, difficulties of supply or affordability will afflict both

residential and commercial gas users, regardless of the physical availability of supply in other jurisdictions.

Only action by government will address this. The market by itself cannot, because of its increasing exposure to an international price for gas.'

- b) The following paragraphs be inserted:

**'Committee comment**

Energy security is essential for households and businesses. Given the changes to the eastern Australian gas market the committee is concerned about the impact this will have on New South Wales gas consumers, in terms of securing supply at an affordable price.

The committee expresses its disappointment that no-one appears to have recognised the significant disruption that the move to LNG export would have on the domestic gas market. However, the committee is encouraged that the NSW Government has now committed to address the state's future energy security challenges. The committee supports the chief objective of the NSW Gas Plan: 'to secure reliable, affordable and sustainable [gas] supplies'. Given that the terms of reference for this inquiry did not extend to considering the impacts of CSG activity, we simply note that if the CSG industry progresses in New South Wales, as proposed in the NSW Gas Plan, it must be pursued in accordance with the Chief Scientist's recommendations and address landholder rights, and all the other scientific, legal, financial, safety and other regulatory challenges set out in her recommendations.

The committee acknowledges that Santos and AGL have publicly committed to make any gas produced at their Gloucester and Narrabri projects available for use by NSW households and businesses. The committee welcomes these commitments but considers that they should be formalised by way of a reservation policy. Such a policy need only be a formalisation of these existing voluntary commitments.

The committee notes the evidence received from the industry outlining concerns that a domestic gas reservation policy will deter investment in the gas industry and increase prices. We note this evidence is hardly disinterested and is self-serving on the part of those who stand most to gain from there being no reservation policy. However, given the importance of gas to New South Wales households and industry, particularly manufacturing businesses, and the changing dynamics of the eastern Australian gas market, the committee considers that an Australia-wide domestic gas reservation policy is needed to assist in containing gas prices and ensuring security of supply.

The interconnected nature of the east coast network and the geographical distribution of gas resources, means any domestic gas reservation policy would be most successfully implemented at a national level across the east coast network, as either a condition of export approval or as an agreement at COAG.

The committee notes that many other gas exporting countries have some kind of reservation policy or national interest test to protect domestic gas markets from the negative effects of gas exports.

The committee stresses that gas is a resource ultimately owned by the people. While private commercial interests that develop the resource are entitled to a reasonable return on investment, those interests cannot be allowed to advantage themselves at the cost of energy security and affordability for ordinary citizens and businesses. This should be the case whether we are speaking as a state or a country.

With gas now being produced in Australia on a scale that completely eclipses any demand by domestic residential or industrial users, any difficulty with supply or increased price can only be as a result of rent-seeking by private interests, allowed by market and regulatory failures. Governments in this State and other jurisdictions should take action to prevent, or remedy this occurring.

If it is the case that the private commercial interests that have developed and are developing this resource can sell the product overseas for a significantly higher price, and/or are using this possibility to increase prices exponentially, difficulties of supply or affordability will afflict both residential and commercial gas users, regardless of the physical availability of supply in other jurisdictions.

Only action by government will address this. The market by itself cannot, because of its increasing exposure to an international price for gas.

Any expansion of the CSG industry in NSW should only occur if it can be undertaken safely in accordance with the Chief Scientist's recommendations and to the benefit of NSW households and businesses.

The committee finds that while the recommendations of the Chief Scientist are being implemented, the NSW Government should pursue through COAG the implementation of an Australia-wide domestic gas reservation policy.

#### **Recommendation 4**

That the NSW Government pursue through the Council of Australian Governments the implementation of an Australia-wide domestic gas reservation policy, while the recommendations of the Chief Scientist are being implemented.'

Resolved, on the motion of Dr Phelps: That

- the transcripts of evidence, submissions, tabled documents, answers to questions on notice, minutes of proceedings and correspondence relating to the inquiry be tabled in the House with the report;
- That upon tabling, all transcripts of evidence, submissions, tabled documents, answers to questions on notice, minutes of proceedings and correspondence relating to the inquiry not already made public, be made public by the committee, except for those documents kept confidential by resolution of the committee,
- That the committee secretariat correct any typographical, grammatical and formatting errors prior to tabling;
- That the committee secretariat be authorised to update any committee comments where necessary to reflect changes to recommendations or new recommendations resolved by the committee,
- That dissenting statements be provided to the secretariat within 24 hours after receipt of the draft minutes of the meeting,
- That the report be tabled on 25 February 2015.

#### **5. Adjournment**

The meeting adjourned at 1.28 pm *sine die*.

Madeleine Foley  
**Clerk to the Committee**

## Appendix 6 Dissenting statements

By Hon Dr Peter Phelps MLC, Liberal Party

This report is so flawed it is difficult to know where to begin my criticism of it.

Let me start with the utter failure of the non-Government members of the Committee to acknowledge a basic premise: that a fall in the supply of a commodity will, in a freely-floating market, lead to an increase in its equilibrium price. Yet to acknowledge this would be to immediately pose the question: why will supply fall in the future? In that respect, the non-Government members of the Committee would have to acknowledge their parties' roles in the outrageous and unscientific demonization of the coal seam gas industry in NSW.

This misunderstanding of basic microeconomics poisons the remainder of the report. Prices are seen to exist somehow independent of supply. There is no acknowledgement of the ability of vertically-integrated firms, such as AGL, to 'sell' gas to their retail arms at wholesale prices less than the international market price. There is no acknowledgement that NSW gas producers, not linked into the Queensland export market, must sell at wholesale prices less than the international market price. There is no recognition that firms may wish to domestically retail gas at below international retail prices, because they are focussed on market share rather than price.

Let us assume a fictitious gas retailer, called Wyatt Gas, is only able to produce 5% of its requirements domestically and must rely on export-parity price gas for the remaining 95%. Say it can produce for \$5/mmBTU, but the world spot price is \$15/mmBTU. Thus, the average input cost would be \$14.50/mmBTU.

But if it were able to increase its domestic supply up to 50% through vertical integration or supply contracts outside world markets, the average cost would reduce to \$10.00/mmBTU. At 75% it would be \$7.50/mmBTU.

Now this does not mean that Wyatt Gas will *necessarily* retail the product for a lower cost in these scenarios. Indeed, it only needs to beat its other competitors' (both gas and electric) prices to maintain market share. While gas demand is inelastic in the short-run, there is good reason to believe that (apart from a few industries which require its specific chemical component) demand would be price-elastic in the medium term, especially with the ease of electricity substitutability. What we can say, with *absolute* certainty however, is that there is no capacity whatsoever in the first scenario for the gas to retail at a price below \$14.50. This is why we need to develop a domestic CSG market in NSW, if we want to reduce pressure on retail natural gas prices in NSW.

While on the subject of 'scenarios', comment must be made on the inordinate weight placed upon the University of Melbourne's Energy Institute's report. This report has been repeatedly, but falsely, portrayed as a 'prediction' or a 'forecast'. The truth of the matter is that this report was commissioned by the Left-wing, anti-fossil fuels Australia Institute, and was based on an assumption of higher gas prices. But this is a 'scenario', not a 'prediction', as Mr Forcey himself acknowledged in testimony (p.57) before the Committee. The difference is quite important: if I *assume* that I will win the lottery next week, I would pay off my mortgage and buy an aeroplane. That is a scenario, based on an *a priori* assumption. It is not a 'prediction' or a 'forecast' that I will actually be paying off my mortgage and buying an aeroplane next week.

Similarly, claims that the UMEI paper ‘predicts’ anything are wrong – the report is a scenario constructed on the *a priori* notion of decreased supply, and increased prices, when there are a range of policy prescriptions available which would void this fundamental assumption, not the least of which being the active development of an indigenous CSG industry in NSW.

I also reject any policy of legislated gas reservation, and the historical record of such economic lunacy is available for all to see, assuming that economic nationalists ever wished to do so.

The comments of paragraph 4.51 reads like the fevered ramblings of an undergraduate Chavista, or something Ayn Rand would put into the mouth of an antagonist. This paragraph represents the entire mindset of the report, condensed into one emetic sentiment. The language is one of equivocation, which evades the question of what is necessary to *make use* of natural resources. A rational person would know that nothing is given to them, that the transformation of raw materials into human goods requires a process of thought and labour from producers – and that, in a just society, no person can have a primary *right* to the goods created by the thought and labour of others.

Yet the non-Government members of the Committee presume exactly this falsehood in their comments and recommendation: That production will always occur, irrespective of the evils inflicted on producers. That supply at a set price will always be there. When it is not, they will regulate the price. When supply then fails, due to that regulation, they will use the coercive force of government to steal that supply. When the firms leave and the industry dies, what then? Plow taxpayers’ money into expensive ‘renewables’; or create greater energy poverty?

This could have been a great report, one which told hard truths about what was required if NSW consumers wish to have a secure supply of gas at reasonable prices into the future. Instead, we are left with a mish-mash of half-baked Socialist expropriation and touchy-feely delusions about the capacity of ‘alternative’ energy sources. We are presented with series of policy prescriptions which, if implemented, would have such a deleterious effect on gas production that AGL and Santos would be justified in turning off the supply, cementing up their wells, and leaving a big sign on their front gates: “I am leaving it as I found it. Take over. It’s yours.”

This is a terrible report. And shortages in gas production for NSW are now certain.

But neither of these outcomes were inevitable.

**By Mr Scot MacDonald MLC, Liberal Party**

The Inquiry and report warrants a dissenting statement as its genesis and findings are politicised at the expense of sound energy policy in NSW. Ultimately the consumers and businesses of this state would pay more for their Gas if the recommendations were adopted. As low income households generally expend a greater proportion of their budget on energy, they would be disproportionately penalised.

The rationale for the Inquiry instigated by the Greens, ALP and crossbench ignored the reality that all of these issues in the Terms of Reference have been canvassed in two prior inquiries in this term of Parliament.<sup>1</sup> The flaws in the Report are;

In reference to the trading hub(s) and market design, the COAG Energy Council is investigating “opportunities to significantly improve the function of the gas market and remove impediments to supply.” Part of the Council’s work is to build a Gas Market Development Plan. It was summarised and released as part of its December 2014 communique. It includes “Continue to pursue useability and functionality improvements to the National Gas Market Bulletin Board.”

There are defining differences between the gas and electricity markets. Notably electricity cannot be stored and is therefore suited to a ‘5 minute market’. The Gas market includes significant storage economics and pipelines perform a storage function as well as transmission. As noted above, the NSW Government and COAG Energy Council are already undertaking a substantive review of the Gas market. That should be completed before a specific trading mechanism is supported.

**Recommendation 3** In his evidence to the Inquiry, the Hon. Anthony Roberts, Minister for Resources and Energy said “...the Government has accepted all of the recommendations of the independent Chief Scientist and Engineer. I get increasingly frustrated by politicians saying that we should wait for the science. The chief scientist has laid down a pathway for the safe extraction of onshore gas and this Government is moving along that pathway.” The Minister clearly explained the NSW Government is fully implementing the Chief Scientist’s recommendations. Recommendation 3 is therefore superfluous.

**Recommendation 4** This recommendation calls on the NSW Government to pursue a national reservation policy for Gas through COAG. The submission by the NSW Government and evidence by the Minister clearly explained COAG has rejected national reservation policy. This recommendation is not capable of being enacted.

Resource reservation is protectionism. The State and national economy owes its success in part to a long standing rebuttal of protectionism and picking industry winners. In its evidence before the Inquiry, Mr Matt Grudnoff of the Australia Institute said in reply to a question about restricting exports “Certainly, if you were to do that for industry and commercial interests you are picking winners and the Government should be extremely careful in any kind of industry policy of that nature.”

In its submission, the Business Council of Australia stated “the problem with gas reservation is that it actually leads to delays in developing the gas needed to meet demand. That is because it adds to costs that act as a disincentive to developing new gas resources.”

While gas reservation is a superficially attractive policy, the consequence would be higher domestic energy prices; distorted and reduced investment in NSW and Australia and lower national income. In its research paper “The Effect of the Mining Boom on the Australian Economy”<sup>2</sup>, the RBA rejects the ‘Dutch Disease’ phenomenon applying to Australia following the rapid expansion of mining and petroleum exports. The motivation for Gas reservation was not clearly articulated in this inquiry. If it was to preserve existing jobs and industry, structural adjustment should not be deferred at the expense of overall growth of the state and national economy. Australian living standards will improve as a consequence of the new export orientated Gas industry.

The only conceivable threat to increased per capita household income, rising State Final Demand, real wage growth and employment is the ALP/Greens policy for moratorium of the emerging NSW Gas industry.

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- 1 State and Regional Development Committee ‘Downstream gas supply and availability in NSW’. General Purpose Standing Committee 5 ‘Coal Seam Gas’.
  - 2 Downes P, Hanslow K, Tulip P ‘The Effect of the Mining Boom on the Australian Economy’ Reserve bank of Australia Research Discussion Paper August 2014.

**By Mr Jeremy Buckingham, The Greens****Coal seam gas development is not in the public interest**

I am pleased that the committee accepted the strong evidence presented that the development of coal seam gas in NSW will have no meaningful impact on the supply or cost of gas in NSW. However, given the significant risks that the development of a coal seam gas industry poses to water resources, the environment and public health, it is disappointing that the committee decided not to go a step further and recommend that the industry not be allowed to proceed in NSW.

I believe that the report should have included the following recommendation:

1. *The NSW government should not risk public health, the quality or quantity of water resources or the nature of farmland and rural communities by developing an indigenous gas supply from unconventional resources.*

I am also concerned that the Liberal, National and Shooters Party members of the committee voted to prevent the important evidence given by NSW Farmers and Lock the Gate, that the risks and the widespread and determined community opposition to unconventional gas exploration and production cannot be ignored when examining issues which affect gas supply and pricing issues, being included in the final report.

**Stronger recommendations regarding market transparency**

Significant concerns were expressed in evidence to the committee by a number of stakeholders, including the Minister for Resources and Energy, about the lack of transparency in the gas market and the possibility of cartel behaviour and price-gouging to the detriment of consumers are very serious and warranted stronger recommendations from the committee to rebuild public confidence in the industry. To this end I recommend that the NSW government:

1. *requests that the Australia Competition and Consumer Commission investigate current arrangements and practices in the upstream gas industry to ensure that any monopoly, cartel or other behaviours are not being practiced to the detriment of Australian gas consumers, and that upstream gas companies are disclosing adequate information to ensure a competitive gas market, and*
2. *requires the disclosure of the details of gas export contracts to the government on a confidential basis, for those companies wanting to do business in NSW.*

**Transition to renewable energy alternatives**

While gas is currently a significant energy input for many businesses and households in NSW, in the medium term it is not a vital energy source and can be replaced by renewable energy alternatives. Unfortunately, this committee report is woeful in its failure to make any recommendations regarding the need for government support for households, business, the public sector and energy generators to transition away from gas and towards renewable energy alternatives. This is especially important for low income households and renters for whom the upfront cost of switching from gas to renewable alternatives could be prohibitive and who will therefore be impacted the most by a sudden increase in gas prices. In recognition of this, I believe the following recommendations are appropriate and should have been supported:

1. *To assist in the development of other sources of energy, the NSW Government should develop contingent legislation that provides a guarantee that in the event of any future change to the federal Renewable Energy Target, no renewable energy generator in NSW would be worse off.*
2. *Further, that the NSW Government implement policies and strategies to facilitate a complete phase out of fossil fuels, including gas, for energy generation and other purposes by 2030.*
3. *The NSW government should develop programs, policies and strategies that facilitate households, businesses, the public sector and industry transitioning from gas and fossil fuels to high efficiency energy use and renewable forms of local energy generation, including the provision of low interest loans, independent technical advice and benefit sharing schemes.*
4. *The NSW Government should undertake detailed, segmented analysis of the financial impacts of rising gas prices on low-income and vulnerable households in NSW, including analysis of the extent to which gas is used in:*
  - a) *NSW public housing and the cost impacts for residents (over 5 and 10 year timeframes)*
  - b) *community housing and the cost impacts for residents*
  - c) *low-income rental housing and the cost impacts for residents.*
5. *The NSW Government should undertake detailed research into the barriers and opportunities related to disconnecting from gas for residential consumers, especially public and community housing tenants and low-income renters.*
6. *The NSW Government should develop policies and programs to support to support improved energy efficiency by NSW households, especially dedicated support for low-income households.*
7. *The NSW Government should provide NSW households with accurate information on the relative costs of electrical and gas systems for cooking, hot water heating and space heating, and encourage people to switch to efficient electrical systems where it is cost effective to do so.*
8. *The NSW Government should facilitate identification and financing of energy efficiency and economic fuel switching alternatives to gas use in the commercial and industrial sectors.*

### **Climate change context**

It is disappointing that the committee refused to support amendments to the report which would acknowledge that any examination of the supply and cost of gas must take into account climate change. Governments around the world, including Australia's, have recognised that greenhouse gas emissions need to be significantly and rapidly reduced to ensure global temperature increases are limited to two degrees Celsius. Measures to reduce emissions, whether through government regulation or market mechanisms, are being introduced around the world and it is inevitable that in the near future global or national policies will act to reduce the carbon intensity of our economy and this will have a direct impact on the supply and cost of gas. A recent study in the *Journal Nature* has concluded that order to ensure global temperature increases are limited to two degrees Celsius between 51 and 56 percent of gas reserves in the OECD Pacific would have to remain unused.

(FOOTNOTE: <http://www.nature.com/nature/journal/v517/n7533/full/nature14016.html>)