



**Economics and Industry Standing Committee**

**The Compilation of the WA  
Gas Statement of Opportunities**

**Report No. 10  
November 2016**

Legislative Assembly  
Parliament of Western Australia

## Committee Members

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Chair	Mr I.C. Blayney, MLA Member for Geraldton
Deputy Chair	Hon F.M. Logan, MLA Member for Cockburn
Members	Mr J. Norberger, MLA Member for Joondalup
	Mr P.C. Tinley, AM, MLA Member for Willagee
	Hon T.K. Waldron, MLA Member for Wagin

## Committee Staff

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Principal Research Officer	Dr Loraine Abernethie, PhD
Research Officer	Mr Michael Burton, BEc, BA (Hons)

Legislative Assembly	Tel: (08) 9222 7494
Parliament House	Fax: (08) 9222 7804
Harvest Terrace	Email: <a href="mailto:laeisc@parliament.wa.gov.au">laeisc@parliament.wa.gov.au</a>
PERTH WA 6000	Website: <a href="http://www.parliament.wa.gov.au/eisc">www.parliament.wa.gov.au/eisc</a>

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# Economics and Industry Standing Committee

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## The Compilation of the WA Gas Statement of Opportunities

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Report No. 10

Presented by

**Mr I.C. Blayney, MLA**

Laid on the Table of the Legislative Assembly on 10 November 2016



## Chairman's Foreword

In 2008 both the Karratha Gas Plant and the Varanus Island facility were forced to shut down, causing serious disruptions to WA's natural gas supply. Part of the WA Government's response to these two major events was to introduce legislation to establish the production of an annual Gas Statement of Opportunities (GSOO). The GSOO's purpose is to provide stakeholders in the WA domestic gas market information and assessments on the state's medium and long term natural gas supply and demand, transmission and storage capacity. The *Gas Services Information Act 2012* and the accompanying *Gas Services information Regulations 2012* and *Gas Services Information Rules* (the Rules) provide the legislative framework for the production and operation of the GSOO.

The first GSOO was published in July 2013 and provided a forecast for the years 2013 to 2022, and was subject to some criticism in relation to its methodology. Subsequent GSOOs were published in January 2014, December 2014 and November 2015.

The 2015 GSOO forecast an oversupply of domestic gas for the forecast period to 2025. In contrast, the DomGas Alliance argues that, based on the alternative analysis of Wood Mackenzie, there is potential for a significant shortfall of domestic gas in relation to demand. At issue, then, is the accuracy of the GSOO and whether it provides reliable gas market forecasts to assist gas market participants in making informed decisions and for the state government to make policy decisions based on accurate information.

The compiler of the GSOO—initially the Independent Market Operator (IMO); currently the Australian Energy Market Operator (AEMO)—has considerable power under the Rules, including the authority to require gas market participants, including producers, to provide information necessary for the compilation of the GSOO. It was this aspect of the GSOO in particular that the DomGas Alliance brought to the Committee's attention.

The Committee undertook some preliminary hearings to better understand these two very different forecasts. This report is the result of the Committee's analysis of this information. This relatively brief review has revealed a number of important points:

- both AEMO and the DomGas Alliance agree that the Rules are sufficient to allow the necessary information to be obtained and included in the GSOO;
- AEMO recognises the need for improved consultation with stakeholders and has begun to conduct stakeholder forums;
- AEMO recognises the need for improved transparency about the assumptions that inform the GSOO forecasts;

- producers must undertake diligent and good faith marketing of domestic gas, but are not obliged to sell domestic gas at any price; that is, the domestic gas policy obligation is an obligation to market, not an obligation to supply;
- producers have sold gas into the domestic market at less-than-LNG netback prices;
- an accurate and transparent GSOO is essential for the WA economy; and
- an inaccurate GSOO could lead to complacency in government in relation to domestic gas supplies.

The Committee is not able to say whether the GSOO forecast domestic gas supply is more or less accurate than that developed by Wood Mackenzie. And it is doubtful whether anyone else could make this judgement. These forecasts are produced for different purposes and both could be considered accurate depending upon the assumptions on which they are based. This reinforces the need for increased transparency in the GSOO and other analyses so that those who rely on them for decision-making can better understand and have more confidence in the data they contain. I urge AEMO to continue its work to improve stakeholder consultation and the transparency of the GSOO assumptions.

Ideally the Committee would have been able to defer reporting until it could examine the 2016 GSOO which is due to be published in December. However, the closing of the parliamentary term prevents that. In light of this, and in recognition of the importance of domestic gas to WA, I would strongly encourage the Economics and Industry Standing Committee of the 40<sup>th</sup> Parliament to give serious consideration to further scrutiny of the compilation of the GSOO.

I would like to take this opportunity to thank my fellow committee members—Hon Fran Logan, MLA, Deputy Chairman; Mr Jan Norberger, MLA, Mr Peter Tinley, AM, MLA, and Hon Terry Waldron, MLA—for their dedication to the work of the Committee, not only during this review, but throughout the term of the 39<sup>th</sup> Parliament. I would also like to thank the Committee's Principal Research Officer, Dr Loraine Abernethie, and Research Officer, Mr Michael Burton, for their assistance.



MR I.C. BLAYNEY, MLA  
CHAIRMAN

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## Executive Summary

The Western Australian (WA) 2015 Gas Statement of Opportunities (GSOO) forecasts an excess of domestic gas supply over demand of at least 107 terajoules (TJ) per day, rising to more than 400 TJ per day by 2025. In contrast, Wood Mackenzie analysis forecasts a domestic gas supply shortfall of approximately 150 TJ per day. Based on this, the DomGas Alliance expressed its concerns about the discrepancy and the potential consequences for stakeholders in the WA domestic gas market, and questioned whether the powers available to the compiler of the GSOO were adequate and being applied effectively.

As Chapter 1 outlines, the Economics and Industry Standing Committee (the Committee) decided to gather information to determine whether a formal inquiry was required. Hearings with the DomGas Alliance, Wood Mackenzie and the Australian Energy Market Operator (AEMO) revealed a very clear difference of opinion between AEMO and Wood Mackenzie, with each party standing by the accuracy of their respective forecasts. Because of the limited time remaining in the current term of Parliament, the Committee decided to review the information provided to date and to report to Parliament.

The GSOO was a response to two serious disruptions to WA's natural gas supply in 2008, namely the shutdowns of the Karratha Gas Plant and the Varanus Island facility. The GSOO is compiled under the provisions of the *Gas Services Information Act 2012* (WA) and the accompanying *Gas Services information Regulations 2012* (WA) and *Gas Services Information Rules* (WA) (the Rules). This legislative framework is described in Chapter 2.

Chapter 3 sets out the purpose of the GSOO, which is to provide information on the medium and long term WA gas market. AEMO's interpretation of their role, the way they gather information for the GSOO and the way that information is tested for accuracy is also outlined in Chapter 3. This chapter also contains a brief description of the four GSOOs produced to date.

Both the DomGas Alliance and AEMO agree that the Rules are adequate and provide sufficient authority to AEMO to allow it to gather the necessary information. However, as Chapter 4 demonstrates, using the Pluto project as an example, the DomGas Alliance questions whether AEMO is applying the Rules effectively. AEMO's approach to stakeholder engagement and the collection of information is outlined in Chapter 4. While the Committee appreciates AEMO's approach, it is essential that they take steps to ensure the GSOO contains accurate, reliable and up to date information from producers.

As a forecast, the GSOO is necessarily based on a number of assumptions. The report does not discuss all of the assumptions contained in the GSOO. Rather, it focusses on two important and interconnected assumptions—a producer’s willingness to supply and a producer’s willingness to supply domestic gas at a price that is less than LNG netback. These assumptions, including the associated concept of diligent and good faith marketing, are the focus of Chapter 5.

It is clear that there is a need for increased transparency in relation to the assumptions on which domestic gas forecasts are made. As Chapter 6 notes, AEMO have acknowledged this and committed to improving transparency in future GSOOs. Chapter 6 also discusses the implications for government of a GSOO that is not accurate or that is incomplete. It is essential for government policy and for WA businesses to have as accurate a picture as possible of the state’s domestic gas market. It is therefore essential that forecasts include detailed information on the assumptions on which they are based.

# Chapter 1

## Introduction

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### The issue

1.1 In January 2016 the Executive Director of the DomGas Alliance, Mr Matt Brown, wrote to the Economics and Industry Standing Committee (the Committee) expressing concern about information contained within the Independent Market Operator's (IMO's) *Gas Statement of Opportunities* (GSOO). According to Mr Brown:

- policy concerning the supply of gas to the Western Australian domestic market 'has been heavily influenced by the annual Gas Statement of Opportunities';<sup>1</sup>
- none of the GSOOs produced to date have accurately represented what is occurring in the domestic gas marketplace;<sup>2</sup> and
- the 2015 GSOO's forecast of excess supply over the medium term is completely at odds with separate analysis undertaken by Wood Mackenzie.<sup>3</sup>

1.2 The primary finding of the 2015 GSOO is that the 'potential gas supply is at least 107 TJ [terajoules] per day greater than demand over the next four years in the base forecast scenario', with the excess supply 'forecast to rise to more than 400 TJ per day' by 2025.<sup>4</sup> By contrast, the DomGas Alliance argued that after 2020 there is potential for a 'supply shortfall of over 150 million cubic feet per day' (an amount equal to approximately 150 TJ per day).<sup>5</sup>

1.3 Based on this discrepancy, the DomGas Alliance further argued that:

*the danger here is that if the government is making energy policy decisions based on the GSOO outlook, there is a serious possibility it will be making the wrong decisions.*<sup>6</sup>

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1 Mr Matt Brown, Executive Director, DomGas Alliance, *Letter*, 11 January 2016, p 1.

2 *ibid.*

3 *ibid.* See also: Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 2.

4 Independent Market Operator, *Gas Statement of Opportunities*, Perth, November 2015, p 1.

5 Mr Matt Brown, Executive Director, DomGas Alliance, *Letter*, 11 January 2016, p 1. Although the energy content of natural gas varies in accordance with composition, there is approximately 1 TJ of energy in 1,000,000 cubic feet of natural gas.

6 Mr Matt Brown, Executive Director, DomGas Alliance, *Letter*, 11 January 2016, p 2.

## Chapter 1

1.4 Consequently, according to the DomGas Alliance, there ‘needs to be an independent review of the compilation of the GSOO’ focusing on the following key concerns:

- the powers available to the compiler of the GSOO;
- the exercise of these powers to date in gathering data from gas producers; and
- whether additional powers are needed to make the GSOO supply forecast more accurate.<sup>7</sup>

### **The Committee’s examination of the issue**

1.5 In June 2016 the Committee decided to gather some background information to help it determine whether or not a formal Inquiry was appropriate. This process involved convening hearings with the parties mentioned in the DomGas Alliance correspondence, namely:

- the DomGas Alliance as the party that raised the issue with the Committee;
- the Australian Energy Market Operator (AEMO), which took over the functions of the IMO in November 2015;<sup>8</sup>
- Wood Mackenzie, whose gas market analysis is cited by the DomGas Alliance in support of their argument.<sup>9</sup>

1.6 Because of the discrete nature of this issue, and the limited time remaining in this term of parliament, rather than conduct a formal Inquiry, the Committee decided to review the information provided in these hearings and correspondence, and report to Parliament. The Committee is mindful of the limitations of this approach, but nevertheless believes it has been able to reach well-founded and considered conclusions in relation to the compilation of the GSOO.

### **A clear difference of position**

1.7 During a hearing, Mr Tim Langmead of the Fortescue Metals Group Ltd re-stated the DomGas Alliance’s position that the ‘very rosy outlook’ presented in the GSOO ‘is completely out of step with some very credible analysis and credible recent analysis by Wood Mackenzie’.<sup>10</sup> Mr Brown expanded on the DomGas Alliance’s concerns, raising the following six points in particular:

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7 *ibid.*

8 Government of Western Australia Media Statements, *Electricity reform gains momentum*, 30 September 2015. Available at: <https://www.mediastatements.wa.gov.au/Pages/Barnett/2015/09/Electricity-reform-gains-momentum.aspx>. Accessed on 14 July 2016. This change coincided with a transfer of operational and market functions in the WA electricity industry to AEMO.

9 The hearing with Wood Mackenzie was held in closed session.

10 Mr Timothy Langmead, Director, External Relations, Fortescue Metals Group Ltd, *Transcript of Evidence*, 24 August 2016, pp 7–8.

- a lack of visibility on how estimates of forecasted price expectations casts doubt on whether they reflect the actual market;
- reporting nominal production capacity may ‘provide a false expectation that excess capacity can translate into excess supply’;
- assessing future supply based on producers’ ‘willingness to supply’ at particular price points may be misleading, ‘particularly when some LNG producers have clearly noted they will not accept anything below LNG netback for their product’;
- the level of authority in producers at which information is signed off;
- the means by which AEMO verifies the data provided by producers; and
- how, and at what price points, the domestic gas ‘obligations of newer projects such as Pluto’ will be considered in the GSOO.<sup>11</sup>

1.8 AEMO is clearly aware of the DomGas Alliance’s view, but stands by its analysis of the domestic gas market. While AEMO inherited the GSOO from the IMO, Mr Cameron Parrotte, AEMO’s Executive General Manager WA, believes that ‘what was landed on is accurate’.<sup>12</sup> According to Mr Parrotte:

*stakeholders and gas market participants are likely to have differing views on the forecasts for supply, demand and prices and we respect that, but as an independent organisation, AEMO needs to work across all of those stakeholders to understand these views and the gas supply and demand requirements that feed into the domestic market.*<sup>13</sup>

1.9 Mr Parrotte’s view is that ‘DomGas is pretty much leaning on the Wood Mackenzie report [... and that] there is more gas available and will be, and has been, put into the local market than purely the mandated 15 per cent market requirement’.<sup>14</sup> In a May 2016 stakeholder forum, in response to a question on how confident AEMO was in the GSOO and its findings, Ms Sandra McLaren, the forum Chair, advised that AEMO was ‘confident in its reports’.<sup>15</sup>

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11 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 3. While there are different methodologies for calculating LNG netback, it is generally defined as the revenue from the sale of the oil less the costs of getting that oil to market, including but not limited to production, transport and marketing, as well as royalties.

12 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 7.

13 *ibid*, p 2.

14 *ibid*, p 7.

15 AEMO, *Minutes—WA gas stakeholder consultation forum*, 24 May 2016, p 3.

## Chapter 1

- 1.10* Given the different positions of the DomGas Alliance and AEMO, the Committee has sought to find the main points of difference and determine how the situation might be improved.
- 1.11* To provide context for the Committee's discussion of the issues, the introductory chapters of this report outline the legislative framework relating to the security of WA's gas supply generally and the GS00 in particular, the composition of the GS00, previous concerns about the accuracy of the GS00, and the different forecasts of WA's gas supply.

# Chapter 2

## The Legislative Framework

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### The GSOO as a response to disrupted natural gas supply

2.1 In 2008 there were two significant disruptions to the supply of natural gas in Western Australia (WA)—the shut-down of the Karratha Gas Plant in January and a two-month shut-down of operations at the Varanus Island facility.<sup>16</sup> In response, in January 2009 the Western Australian Government established the Gas Supply and Emergency Management Committee (GSEMC) to review the security of WA’s gas supply. Among other things, the GSEMC recommended that an annual Gas Statement of Opportunities (GSOO) be produced to provide ‘information and assessments relating to medium and long term natural gas supply and demand and natural gas transmission and storage capacity in the State’.<sup>17</sup>

2.2 A 2011 report by the Economics and Industry Standing Committee on domestic gas prices also recommended the establishment and ongoing annual publication of a GSOO.<sup>18</sup> Specifically, that Committee recommended that:

*the government establishes an independent Gas Market Monitor to oversee the operation of the local wholesale gas market. [...] the Gas Market Monitor’s primary duties would be to:*

- *publish an annual gas market review that includes price-sensitive supply/demand forecasts and identifies deficiencies in the operation of the market;*
- *facilitate discussion between government and market participants on how to address identified market inefficiencies; and*
- *provide the basis for ministerial and departmental discussions with LNG producers before future domestic reservation obligations are finalised.*<sup>19</sup>

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16 Office of Energy, *Gas Supply and Emergency Management Committee, Report to government*, Government of Western Australia, Perth, pp 8–9.

17 Explanatory Memorandum, Gas Services Information Bill 2011 (WA), p 1.

18 Economics and Industry Standing Committee, *Inquiry into domestic gas prices*, 24 March 2011, pp 87–90.

19 *ibid*, p 90. This was modelled on the Queensland Gas Commissioner.

## The legislative framework for the GSOO

- 2.3 In 2011, the Government introduced the Gas Services Information Bill 2011, and in April 2012 the *Gas Services Information Act 2012* (WA) (the Act) became law. This Act established the GSOO and delegated its operation to the Independent Market Operator (IMO). The operation of the GSOO has since been delegated to the Australian Energy Market Operator (AEMO).
- 2.4 The primary purpose and expected content of the GSOO is set out in s 5 of the *Gas Services Information Act 2012*. Under the Act, the GSOO:
- (1) ... is a periodic statement the primary purpose of which is to include information and assessments relating to medium and long term natural gas supply and demand and natural gas transmission and storage capacity in the State.
  - (2) ... may include information and assessments relating to fuels other than natural gas, to the extent relevant to the primary purpose of the GSOO.<sup>20</sup>
- 2.5 In conjunction with the Gas Bulletin Board, the objectives of the GSOO are ‘to promote the long term interests of consumers of natural gas’ by enhancing security of supply, promoting efficient use of and investment in natural gas resources, and promoting ‘competition in the use of natural gas services’.<sup>21</sup>
- 2.6 The *Gas Services Information Regulations 2012* (WA) (the Regulations) for the GSOO are established under s 7 of the Act. Section 8 of the Act provides for the establishment of Rules for the GSOO, which take the form the *Gas Services Information Rules* (WA) (the Rules).<sup>22</sup>
- 2.7 The Rules stipulate at Part 6 exactly what AEMO must do in publishing the GSOO.<sup>23</sup> Rule 105(1) also stipulates that AEMO must review the GSOO ‘at least once in every five-year period’. In addition, Rule 106(1) states that AEMO ‘may require a Gas Market Participant to provide information for the purposes of preparation of a GSOO’ and, under Rule 106(2), the gas market participant must provide the requested information.<sup>24</sup>

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20 *Gas Services Information Act 2012* (WA), s 5.

21 *Gas Services Information Act 2012* (WA), s 6.

22 The *Gas Services Information Rules* were gazetted on 24 June 2013, with subsequent amendments made by the Independent Market Operator. See: *Western Australian Government Gazette*, No. 101, Government of Western Australia, Perth, 24 June 2013.

23 The Rules as gazetted referred to the IMO. With the transfer of GSOO responsibilities from the IMO to AEMO, these provisions now apply to AEMO.

24 *Gas Services Information Rules*, r 106(1).



- 2.8 Under Regulation 15, a civil penalty applies for non-compliance with Rule 106(2). Schedule 1 to the Regulations provides that for the first contravention the penalty is \$10,000 plus \$2,000 per day of non-compliance; for subsequent contraventions the penalty is \$20,000 plus \$2,000 per day of non-compliance.
- 2.9 The extent to which this power was drawn upon by the IMO is unknown. As this goes to the heart of the concerns raised by the DomGas Alliance, the IMO/AEMO approach to the Rules is discussed in Chapter 4.



# Chapter 3

## The Gas Statement of Opportunities

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### Purpose of the GSOO

3.1 As noted in Chapter 2, an annual GSOO was recommended in 2009 by the Gas Supply and Emergency Management Committee (GSEMC) to provide a medium and long term natural gas market review. The 2015 GSOO states that its purpose 'is to provide an overview, technical and market data and additional information regarding the status and opportunities in the natural gas market in Western Australia'.<sup>25</sup>

3.2 According to the 2015 GSOO, it 'provides the Independent Market Operator's (IMO's) independent assessment of the Western Australian (WA) domestic gas market over the calendar years 2016 to 2025 (the forecast period)' and is designed to assist stakeholders in the energy industry 'to identify any potential shortfalls, constraints and opportunities in the WA gas sector'.<sup>26</sup> The 2015 GSOO contains:

- 'forecasts of gas demand and supply' for 2016 to 2025;
- 'an overview of gas infrastructure in the state'; and
- other emerging issues considered 'likely to impact the WA gas sector'.<sup>27</sup>

3.3 The 2015 GSOO notes that it does not make investment recommendations or provide all the information potential and existing investors and participants in the gas market require for their decision-making.<sup>28</sup>

3.4 According to AEMO, the GSOO exists 'to provide some insight into supply, demand and pricing and for people to go and make their own decisions';<sup>29</sup> that is, the GSOO's role 'is to provide the transparency for people to make their own decisions upon that information'.<sup>30</sup>

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25 Independent Market Operator, 'Disclaimer', *Gas Statement of Opportunities*, November 2015.

26 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 1.

27 *ibid*, p 1 and p 7. See also: Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 2.

28 Independent Market Operator, 'Disclaimer', *Gas Statement of Opportunities*, November 2015.

29 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 9.

30 *ibid*, p 5 and p 11.

## AEMO's role

- 3.5 AEMO acknowledged the importance of it being 'independent and compliance driven', and advised that it is aware of its obligations under the Rules. AEMO also advised that it 'meet[s] those obligations' and is 'very conscious that our stakeholders who pay our fees, may, at times, want more than the minimum compliance levels'.<sup>31</sup>
- 3.6 Agreeing that questions about the reliability of the GSOO are a concern, AEMO 'want[s] to be the trusted, independent adviser on these issues—it is why we exist—and [AEMO ...] takes that very seriously'.<sup>32</sup>
- 3.7 AEMO sees its key role as gathering and analysing information from gas market stakeholders, and producing the GSOO.<sup>33</sup> Following feedback from the 2015 GSOO, AEMO indicated it needs to be 'more up-front with the assumptions around the various forecasts to let people' make up their 'own minds' and to 'provide more insights into what sits behind the various forecasts, [so that ...] people can draw their own conclusions from it'.<sup>34</sup>
- 3.8 In relation to whether AEMO has the capacity, as an independent organisation, to comment on producers' preference for LNG netback pricing, AEMO's Mr Cameron Parrotte advised that that was not the organisation's mandate; rather AEMO's role:

*is energy security; it is to make sure we have enough gas to meet demand. The price outcome is then a market outcome. We will provide advice and commentary when it is sought, but, again, the GSOO does not have an obligation on us to do that.*<sup>35</sup>

- 3.9 Similarly, in discussing the possible future role for AEMO and whether it could provide greater insight into spot and future market pricing in WA, as it does in other states, Mr Parrotte suggested:

*We could potentially deploy that within Western Australia but we think that that is a policy decision. We are happy to provide input and advice into a discussion on that but we just do not think that that is our role to be forcing a market or otherwise. As I said, probably for the next year or two we are going to have limited capability to introduce anything much more than on-boarding of IMO system management and implementing the market reforms.*<sup>36</sup>

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31 *ibid*, p 2.

32 *ibid*, p 9.

33 *ibid*, p 4 and p 9.

34 *ibid*, p 9.

35 *ibid*, p 5.

36 *ibid*, p 3.

## Compilation of the GSOO

3.10 Rule 104 of the *Gas Services Information Rules (WA)* (the Rules) stipulates the information that must be presented in the GSOO. Rule 104(1) states that a ‘GSOO must contain information about’:

- (a) *natural gas reserves (including prospective or contingent resources); and*
- (b) *committed and proposed new or expanded:*
  - (i) *gas production facilities;*
  - (ii) *gas transmission pipelines and pipeline augmentations;*
  - (iii) *gas storage facilities; and*
  - (iv) *large facilities using gas.*

3.11 Rule 104(2) states that a ‘GSOO must contain, for the period of at least 10 years, projected information about’:

- (a) *capacity of gas production facilities, gas transmission pipelines and gas storage facilities including constraints affecting those facilities; and*
- (b) *demand for natural gas.*

3.12 Information for the GSOO is gathered through modelling by organisations such as the National Institute of Economic and Industry Research (NIEIR) and Wood Mackenzie, and from sources such as the Australian Bureau of Statistics, public disclosures by various companies and market intelligence.

3.13 In addition to this, AEMO has established a *WA stakeholder engagement action plan* that details the way in which it will engage with ‘all interested parties to promote effective consultation between AEMO and stakeholders regarding the gas arrangements in Western Australia’, including the GSOO.<sup>37</sup> Part of the plan is to provide an engagement manager for each stakeholder to meet at an agreed frequency. According to the Action Plan, engagement managers have been appointed and first contact should already have been made, with first meetings to be held by 30 November 2016.<sup>38</sup>

3.14 The Minutes of the May consultation forum indicate that stakeholders previously had not felt ‘that the consultation process was adequate in terms of assumptions,

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37 AEMO, *Agenda—Stakeholder Consultation, Gas*, 16 August 2016, p 11. Available at: <https://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/WA-Forums/WA-Gas-Consultative-Forum-WAGCF>. Accessed on 23 September 2016.

38 AEMO, *Agenda—Stakeholder Consultation, Gas*, 16 August 2016, p 15.

## Chapter 3

difference in opinion and understanding regarding data and base line information'.<sup>39</sup> At that meeting, stakeholders agreed that the consultation forum could be used to address those concerns and that 'a presentation on the key high level assumptions of the GSOO at the next stakeholder consultation forum would be beneficial'.<sup>40</sup> The issue of assumptions underpinning the GSOO is discussed in Chapter 6.

3.15 The DomGas Alliance commended AEMO for setting up the stakeholder forums, and suggested AEMO 'should be given some credit for reaching out'.<sup>41</sup> Nevertheless, the DomGas Alliance was concerned that the forum 'to this point in time is largely dominated by the producer side of the equation'.<sup>42</sup> At the time of this report, while an engagement manager may have been appointed to the DomGas Alliance, no contact has been made with the Alliance to arrange meetings.<sup>43</sup>

3.16 At its August 2016 stakeholder consultation forum, AEMO provided the implementation plan for the 2016 GSOO, as follows:

- Feedback on presentation with comment/ discussion 16 August 2016
- Internal AEMO approval of GSOO outline Late August 2016
- Gas Advisory Board and stakeholder consultation September 2016
- Information gathering session for GSOO including one-on-one meetings July to October 2016
- GSOO modelling and results September—October 2016
- Update on status of GSOO report at gas stakeholder consultation forum 4 November 2016
- Draft GSOO report completed End October 2016
- Approval by AEMO Board Early November 2016
- Expected publication of WA GSOO End November 2016<sup>44</sup>

3.17 Mr Parrotte confirmed that, in accordance with the Rules, the 2016 GSOO would be published by 31 December.<sup>45</sup>

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39 AEMO, 'Minutes of 24 May 2016 Stakeholder Forum Gas', in *Agenda—Stakeholder Consultation, Gas*, 16 August 2016, p 3.

40 *ibid.*

41 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 8.

42 *ibid.*

43 Mr Matthew Brown, Executive Director, DomGas Alliance, Electronic Mail, 23 September 2016, p 1.

44 AEMO, *Agenda—Stakeholder Consultation, Gas*, 16 August 2016, p 29.

45 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 3.

3.18 The DomGas Alliance remains critical of the system used to compile the GSOO. Accepting that the first one or two GSOOs would reasonably have room for improvement, the DomGas Alliance argues that now, by the third and fourth, the system for compiling the GSOO should be ‘down pat’.<sup>46</sup> Mr Matt Brown, Executive Director of the DomGas Alliance, stated that there was a sense ‘that there is a “Let’s sit down with producers and let’s have a discussion about what they are prepared to bring into the market and at what levels.”’<sup>47</sup> For Mr Brown, the question is:

*after four GSOOs, surely there must be some sort of more rigorous, robust process which sets down perhaps at a set time each year a list of questions—a database, if you like—that gathers the information from the producers and then can be tracked year after year.*<sup>48</sup>

### Testing the accuracy of the GSOO

3.19 This raises the question of how AEMO tests the validity and accuracy of the data to allow confidence in the GSOO.

3.20 AEMO advised that to ensure the information is accurate it is crosschecked against ‘other sources to give us some confidence that we are not having the wool pulled over our eyes’.<sup>49</sup> These other sources include Wood Mackenzie, ‘so whatever they provide us is almost fairly close’.<sup>50</sup>

3.21 Mr Parrotte also explained that AEMO has ‘looked at how GSOOs are done on the eastern seaboard to see how they generate that report and see what we can leverage off here’.<sup>51</sup> In relation to whether or not the GSOO is effective, AEMO uses stakeholder feedback ‘during the development and post the GSOO publication. We [AEMO] actually hold a briefing or a post stakeholder briefing that is an opportunity for stakeholders to provide feedback’.<sup>52</sup> Mr Parrotte noted that AEMO would continue to take steps to improve the GSOO based on stakeholder feedback.<sup>53</sup>

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46 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 10. The DomGas Alliance’s comments on the first three GSOOs are included in the discussion of those GSOOs.

47 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 10.

48 *ibid.*

49 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 6.

50 Mr Joachim Tan, Senior Analyst, System Capacity WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 6.

51 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 9.

52 *ibid.*

53 *ibid.*, p 2.

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- 3.22 In relation to the accuracy of the pricing in the GSOO, AEMO does ‘look backwards ... at what the forecast price was and the supply was and we will compare that in the GSOO’.<sup>54</sup> AEMO also ‘compare[s] it with published information from the Department of Mines and Petroleum’, and advised that their 2015 forecast for ‘tender supply’ was ‘two terajoules up’.<sup>55</sup>
- 3.23 However, the DomGas Alliance is critical of using a yearly comparison as a measure of accuracy. According to Mr Brown:

*given that the North West Shelf has been providing in excess of 50% of domestic supply and that this has been done under existing and known contracts, it would hardly be surprising to accurately forecast a supply result for 12 months down the track.*<sup>56</sup>

- 3.24 Given that the purpose of the GSOO is to forecast for the *medium and long term*, this is a valid criticism. It is important that policy makers have confidence in the medium and long-term forecasting in the GSOO. As the DomGas Alliance notes:

*policy makers need to know what will happen beyond 2020, when the existing North West Shelf contracts have expired. If we are to face supply shortages or significant demand destruction (and associated industry closures and job losses) in the post-2020 period, policy makers need to understand that now so that remedial action or alternative options can be pursued.*<sup>57</sup>

- 3.25 The following chapters of this report discuss in more detail the concerns raised about the compilation of the GSOO. Before this, though, it is useful to outline the four GSOOs produced to date.

### **GSOOs July 2013—December 2014**

- 3.26 The first GSOO was published in July 2013 and provided a forecast for the 2013 to 2022 period. Among other things, the July 2013 GSOO stated that:

- *there is expected to be adequate gas supply to meet forecast demand in the domestic market;*
- *the gas processing capacity in the domestic market is anticipated to be double the forecast level of domestic gas demand by the end of 2022; [and]*

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54 *ibid*, p 10.

55 Mr Joachim Tan, Senior Analyst, System Capacity WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 10.

56 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 7.

57 *ibid*, p 7.



- *existing gas reserves are forecast to be sufficient to continue to meet 2022 domestic and LNG demand levels for a very considerable period beyond 2022.*<sup>58</sup>

3.27 In December 2013 the Minister for Energy, Hon Mike Nahan, MLA, raised the role of the IMO and criticised the first GSOO's forecasts, acknowledging that they were based upon flawed methodology. As the Minister explained, the Western Australian Government had given the IMO:

*the responsibility to work in gas; so, it set up a gas bulletin board. It is coming out with a statement of opportunity for gas. It came out with a report about three months ago; [...] I think it is fair to say their first report was very optimistic about gas supply in the state. Indeed, they forecast, if anything, a large surplus of gas in the market.*<sup>59</sup>

3.28 The Minister urged caution be exercised in relation to the first GSOO because the IMO had not:

*talk[ed] very much with gas participants, but actually did an econometric approach to it. They assumed that all domestic gas processing facilities that exist or are planned to exist will operate at full capacity.*<sup>60</sup>

3.29 The DomGas Alliance accepts that the first GSOO necessarily was a 'best guess', with the IMO 'learning as they go along'.<sup>61</sup>

3.30 The second GSOO, which the DomGas Alliance argues should have been 'closer to the mark',<sup>62</sup> was published in January 2014, finding that:

- *as WA has an abundance of gas reserves and existing and planned gas processing capacity, these are not meaningful measures of supply to the domestic market. Rather, it is important to consider the extent to which this gas will be made available to the domestic market (the 'potential supply'); [and]*
- *consistent with the July 2013 GSOO, gas production capacity is anticipated to be almost double the forecast level of domestic gas demand by the end of 2023.*<sup>63</sup>

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58 Independent Market Operator, *Gas Statement of Opportunities*, July 2013, p 5.

59 Hon Mike Nahan, MLA, Minister for Energy, *Transcript of Evidence* (closed session), 5 December 2013, p 2.

60 *ibid.*

61 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 10.

62 *ibid.*

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3.31 These findings were, however, subject to the significant caveat that:

- *for the 2021 to 2023 period, the availability of gas to the WA domestic market is likely to be sufficient if the North West Shelf (NWS) Joint Ventures (JVs) supply at levels considered in the Upper potential supply forecasts, but may not be sufficient (at forecast prices) to meet forecast domestic demand if the NWS JVs do not supply gas to the domestic market beyond existing contracts (as reflected in the Lower potential supply forecasts);*
- *estimates suggest while the NWS has sufficient 2P [proved plus probable] reserves for the forecast period, the availability of gas supply from the NWS JVs is pivotal to the domestic gas supply-demand balance for the 2021 to 2023 period and is dependent on:*
  - *the outcomes of ongoing discussions between the WA Government and the NWS JVs that relate to the status of remaining NWS reserves;*
  - *investment decisions required by the NWS JVs to access remaining undeveloped reserves; and*
  - *investment required to extend the life of the aging (30-year old) domestic gas production facility the Karratha Gas Plant (KGP), each of which will involve consideration of the commerciality and profitability of ongoing operations at the KGP.<sup>64</sup>*

3.32 The third GSOO was published in December 2014, repeating the key finding that:

*the supply of gas to the domestic market is expected to be adequate to meet demand over the forecast period.<sup>65</sup>*

3.33 In addition, the December 2014 GSOO predicted that ‘uncertainty’ over whether or not the North West Shelf Joint Venture partners would continue to supply gas to the domestic market had been ‘reduced considerably’ as a result of:

*the recent announcement by the WA Government about the agreement reached with the NWS JVs. This agreement supports continued supply from the NWS JVs to the domestic gas market well into the future. In addition, the announcement by the Hess Corporation (Hess) stating its intention to develop and toll its WA reserves through the NWS JV’s processing facilities may indicate additional supply of gas to the domestic market towards the end of the forecast period.*

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63 Independent Market Operator, *Gas Statement of Opportunities*, January 2014, pp 4–5.

64 *ibid.* 2P is an estimate of reserves with medium confidence, also referred to as ‘P50’.

65 Independent Market Operator, *Gas Statement of Opportunities*, December 2014, p 5.

*However, with several investment decisions yet to be made by both the NWS JV and Hess regarding gas fields to be used, and by the NWS JVs regarding the refurbishment of its aging LNG and domestic gas facilities, the extent of any future supply from the NWS JVs is not yet known with certainty.*<sup>66</sup>

- 3.34 To date, the feedback from members of the DomGas Alliance is that, while this new arrangement ‘would generate a lot more competition’, this has yet to eventuate.<sup>67</sup> However, the DomGas Alliance also recognised that there would be ‘quite a lag between that decision and this actually taking effect’.<sup>68</sup> That said, the DomGas Alliance does not see the new arrangements as ‘necessarily increasing the supply. It is a positive in the sense that some of those individual entities do appear to take a different attitude to the marketing effort’.<sup>69</sup>

## The 2015 GSOO

- 3.35 The November 2015 GSOO, the fourth GSOO, includes forecasts of gas demand and supply in WA and an overview of the state’s gas infrastructure. It also provides some coverage of emerging issues affecting the gas industry. In a broad sense, the GSOO seeks to provide a forecast of the domestic gas market over the ten years from 2016 to 2025.
- 3.36 Most of the whole-of-economy forecasting within the GSOO was undertaken by the NIEIR.<sup>70</sup> Drawing upon publicly-available data from sources such as the Australian Bureau of Statistics and public disclosures by various companies, the NIEIR produced estimates of the future performance of the Western Australian economy and the domestic gas demand in WA over the period under examination.
- 3.37 Notably, the IMO itself estimated ‘the amount of gas required for WA’s LNG sector’, which it added to NIEIR’s domestic gas demand forecast to produce the key ‘total demand for gas’ figure.<sup>71</sup> Similarly, the forecast of the future supply of gas (the other key metric in the GSOO) was undertaken by the IMO itself.<sup>72</sup>
- 3.38 The IMO’s LNG forecasts ‘are developed using historical data from existing LNG facilities and publicly-available information on the proposed consumption and

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66 *ibid.*

67 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 7.

68 Mr Timothy Langmead, Director, External Relations, Fortescue Metals Group Ltd, *Transcript of Evidence*, 24 August 2016, p 7.

69 *ibid.*

70 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 38. The NIEIR is a private economic consultancy firm appointed by the IMO.

71 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 42.

72 *ibid.*, pp 42–45.

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commencement date of new facilities'.<sup>73</sup> Essentially this forecast involves aggregating the total annual production of each of the existing and committed LNG plants in WA, and adding in a figure for gas consumed in LNG processing.

3.39 The supply forecast is calculated by considering publicly-available production *capacity* figures of all domestic gas plants in WA, in conjunction with 'an estimate of gas producers' willingness to supply'.<sup>74</sup> To estimate the willingness of gas producers to supply the WA market, the IMO first produces a forecast of the future domestic gas price, and then estimates:

- the production capacity of each producer;
- the quantity of gas that each producer is already committed to supplying to the market; and
- the quantity of additional gas that each producer can make available at the forecast price.<sup>75</sup>

3.40 These figures are then aggregated to produce the domestic market supply forecast. The key findings of the 2015 GSOO are that:

- *the domestic gas market remains in excess supply;*
- *domestic gas supply has been affected by falling oil prices but is forecast to grow over the forecast period;*
- *domestic gas demand is forecast to grow very slowly;*
- *the end of joint marketing will bring greater competition to the supply market and may provide Gas Market Participants the opportunity to rebalance their gas requirements;*
- *there is greater opportunity for gas suppliers in the north of WA than in the South West; and*
- *the domestic gas market will benefit from greater transparency.*<sup>76</sup>

3.41 The headline finding of the 2015 GSOO was that 'the potential gas supply for the forecast period remains significantly higher than forecast demand'.<sup>77</sup> As Table 3.1 shows, the forecasted baseline (minimum) supply exceeds the forecasted high (maximum) demand all through the period under examination.

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73 *ibid*, p 42.

74 *ibid*, p 43.

75 *ibid*, pp 43–44.

76 *ibid*, pp 1–4.

77 *ibid*, p 1.

**Table 3.1: 2015 GSOO baseline supply and high demand forecasts (TJ/day)<sup>78</sup>**

	2016	2017	2018	2018	2020	2021	2022	2023	2024	2025
Baseline Supply	1,201	1,251	1,175	1,262	1,187	1,231	1,306	1,356	1,431	1,486
High Demand	1,093	1,118	1,124	1,126	1,141	1,148	1,157	1,167	1,180	1,190
<i>Excess Supply</i>	<i>108</i>	<i>133</i>	<i>51</i>	<i>136</i>	<i>46</i>	<i>83</i>	<i>149</i>	<i>189</i>	<i>251</i>	<i>296</i>

3.42

It is not clear whether the gas volumes delivered into the WA market by the Gorgon and Wheatstone plants will make up the shortfall. Wood Mackenzie is of the view that ‘the LNG DMO [domestic market obligation] from Gorgon and Wheatstone is unlikely to be enough to replace the decline from the NWS and domestic fields’.<sup>79</sup> The possibility of a supply shortfall in the Western Australian gas market through to 2025 is of great concern to the DomGas Alliance.<sup>80</sup>

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78 *ibid*, p 2. Compiled from Tables ES.1 and ES.2.

79 Barich, Anthony, ‘Chevron to decide WA fate’, *Energy news bulletin*, 4 January 2016.

80 Mr Matt Brown, Executive Director, DomGas Alliance, *Letter*, 11 January 2016, p 2.



# Chapter 4

## Applying the Rules

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### **The Gas Services Information Rules are adequate**

4.1 This report was initiated by a concern raised by the DomGas Alliance in relation to the powers through which the GSOO is compiled, the way in which these powers are exercised and whether further powers are necessary to the GSOO compiler to make the forecast more accurate.

4.2 The Executive Director of the DomGas Alliance, Mr Matt Brown, reiterated these concerns during a hearing, asking:

*what are the powers available to the IMO in compiling the GSOO; how have these powers been exercised to date and have they been exercised effectively, particularly in relation to gathering data from producers; and are any additional powers required to ensure a more accurate picture of future supply?*<sup>81</sup>

4.3 The powers available to AEMO derive from the *Gas Services Information Act 2012 (WA)* (the Act) the accompanying *Gas Services Information Regulations 2012 (WA)* (the Regulations) and *Gas Services Information Rules (WA)* (the Rules). These were outlined in Chapter 2 and, put simply, require gas market participants to provide information as requested by AEMO, with penalties applicable for non-compliance.

4.4 Both the DomGas Alliance and AEMO recognised that these are ‘significant powers’.<sup>82</sup> Both organisations also accept that the Regulations and Rules are fit-for-purpose. Mr Brown stated that the Regulations and Rules:

*provide sufficient scope to AEMO, or previously the IMO, to secure the information it requires to compile the GSOO. The regulations provide AEMO with the power to derive information required for the GSOO*

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81 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 2.

82 *ibid*, p 10; and Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 5.

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*while also placing an obligation on participants to provide the information requested. Penalties can be enforced for noncompliance.*<sup>83</sup>

- 4.5 Based on this, the DomGas Alliance does not believe that any of these Rules relating to the powers of AEMO need to be amended.<sup>84</sup>
- 4.6 Mr Parrotte, AEMO's Executive General Manager WA, expressed confidence that the Rules allowed them to get the information required, while being 'very careful' in relation to what is published due to confidentiality requirements contained in the Rules.<sup>85</sup>
- 4.7 Mr Brown agreed that 'producers cannot rely on commercial-in-confidence to deny the information' as AEMO is obliged 'as the compiler of the report, to reasonably protect confidential information'.<sup>86</sup>

### Are the Rules applied effectively?

- 4.8 The question then arises as to whether the Rules are being applied and, if so, whether they are applied effectively. The DomGas Alliance points to two main reasons for their concern. The first relates to how AEMO asks for information from producers and what information is requested; the second relates to the timing of information provided to AEMO. As Woodside Energy Pty Ltd's Pluto project is used in the evidence as an example for both issues, some brief information on the project and its domestic gas commitment is provided below.

#### **Pluto's commitment to WA's domestic gas supply**

Woodside Energy's Pluto and Xena fields are situated approximately 190 kilometres north-west of Karratha in WA, the site of the gas plant.<sup>87</sup> These two fields 'contain approximately 5 Tcf of dry gas'.<sup>88</sup> The first production of LNG and condensate from Pluto began in 2012. In 2015, Pluto contributed 34.8 MMboe of LNG and 2.7 MMboe of condensate to 'Woodside's net production of 92.2 MMboe'.<sup>89</sup>

83 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 2. See also p 11.

84 *ibid*, p 11.

85 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 7.

86 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 10.

87 Woodside Energy Pty Ltd, *Pluto*. Available at: <http://www.woodside.com.au/Our-Business/Producing/Pages/Pluto.aspx#.V-dAictJmzk>. Accessed on 25 September 2016; and Woodside Energy Pty Ltd, *Annual Report 2015*, Perth, 2016, p 24.

88 Woodside Energy Pty Ltd, *Pluto*. Available at: <http://www.woodside.com.au/Our-Business/Producing/Pages/Pluto.aspx#.V-dAictJmzk>. Accessed on 25 September 2016.

89 Woodside Energy Pty Ltd, *Annual Report 2015*, Perth, 2016, pp 24–25.



On 12 December 2006, then Premier, Hon Alan Carpenter, MLA, advised the Legislative Assembly that Woodside Petroleum had ‘confirmed its commitment to our domestic gas reservation policy’ by agreeing to:

*market and sell the equivalent of 15 per cent of the [Pluto] project’s produced LNG to the WA energy market, providing it is commercially viable. Woodside and the State will negotiate in good faith an appropriate test of commercial viability.*<sup>90</sup>

This made the Pluto project the first negotiated under the 2006 *WA Government policy on securing gas supplies*.<sup>91</sup> The Premier stated that ‘the commencement date of the commitment will occur five years after the date LNG is first exported from Pluto, or the date on which the 30-millionth tonne of LNG produced at the Pluto site is exported’.<sup>92</sup>

The Premier’s statement was confirmed by Woodside Petroleum at its 2007 Annual General Meeting with Chairman, Mr Charles Goode, stating the company:

*accept[s] the policy and commit[s] to marketing and making available for sale an equivalent of 15% of the produced LNG from our Pluto development. This commitment will only begin five years after the first LNG is produced at Pluto, or after 30 million tonnes are produced, whichever is the earlier.*<sup>93</sup>

However, in August 2011, Clayton Utz reported that ‘negotiations between the WA Government and Woodside on the exact details of this domestic gas reservation requirement are continuing’.<sup>94</sup> The DomGas Alliance, while aware of the broad terms of the domestic gas agreement, is unclear as to when the Pluto project will begin contributing to WA’s domestic gas supply. If it is five years after the first LNG is produced, this would be in 2017; if it is after 30 million tonnes of LNG, it would likely be 2018 or 2019.<sup>95</sup> However, correspondence from the Premier to the DomGas Alliance

90 Hon Alan Carpenter, Premier, Western Australia, Legislative Assembly, *Parliamentary Debates* (Hansard), 12 December 2006, pp 9357c–9358c.

91 O’Sullivan, Kevin and Jasper, Tom, ‘The future of domestic gas reservation in WA’, *Knowledge*, 22 August 2011, p 2.

92 Hon Alan Carpenter, (Premier of Western Australia), *Woodside commits to domestic gas reservation policy*, Media Statement, Government of Western Australia, Perth, 8 December 2006.

93 Mr Charles Goode, Chairman, Woodside Petroleum Ltd, *Address by Chairman Charles Goode and Managing Director and Chief Executive Officer Don Voelte*, 36<sup>th</sup> Annual General Meeting, 19 April 2007, p 12. Emphasis added.

94 O’Sullivan, Kevin and Jasper, Tom, ‘The future of domestic gas reservation in WA’, *Knowledge*, 22 August 2011, p 2.

95 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 11.

confirms that Woodside Energy's Pluto 'domestic gas reservations agreement was five years from first LNG or 30mtpa whichever is the earlier...'.<sup>96</sup> The 2015 GSOO suggests that it is unlikely that Pluto LNG will be available for domestic gas supply by May 2017 and that the Pluto Joint Venture 'will supply domestic gas through an offset arrangement with an existing gas production facility'.<sup>97</sup>

The Pluto plant does not have infrastructure for processing gas for supply into the domestic market; that is, at present it is an export-only plant. Under the *WA domestic gas policy*, to meet Pluto's domestic gas obligations Woodside will need to either develop or obtain access to the necessary infrastructure or make offset arrangements with an existing facility.

### Applying the Rules to gather information

- 4.9 The DomGas Alliance questions the way in which the Rules are applied and whether they are being used effectively. Acknowledging that they do not sit in on AEMO discussions with producers, the DomGas Alliance perceives the situation as one of 'sit around the table, let us have a discussion with Woodside or with Chevron and let us have a discussion about what has happened'.<sup>98</sup> While there may be more to those discussions, the issue for the DomGas Alliance is that AEMO needs to provide a greater understanding of how they gather information.<sup>99</sup>
- 4.10 Mr Matt Brown stated that 'anecdotally, we [the DomGas Alliance] have had it put to us that producers sometimes will provide the absolute bare minimum, that they will be pedantic about the information that they provide'.<sup>100</sup>
- 4.11 As the Pluto project was the first to be developed under the *WA Government policy on securing gas supplies*, it provides a useful example. The 2015 GSOO states that 'domestic gas production capacity is estimated to increase from 1,659 TJ per day at the end of 2016 to 1,977 TJ per day by the end of 2025'.<sup>101</sup> It also states that 'a lack of certainty regarding completion timeframes' for domestic gas supply contributions means that 'potential domestic facilities such as Woodside's Pluto, Buru Energy's Yulleroo and Transerv Energy's Warro and other expansions are not considered in the supply forecasts for this GSOO'.<sup>102</sup>

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96 Mr Matt Brown, DomGas Alliance, Electronic Mail, 30 September 2016, p 1.

97 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, pp 64–65.

98 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 11.

99 *ibid.*

100 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 10.

101 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 63.

102 *Ibid.*, p 63, fn 71.

- 4.12 The 2015 GSOO also expects that the Pluto Joint Venture will fulfil its domestic gas obligations through an offset arrangement with an existing facility, and suggests this is most likely to be the Karratha Gas Plant.<sup>103</sup> As the compiler of the 2015 GSOO, the Independent Market Operator (IMO) understood that Woodside Energy was ‘in discussion with the Department of State Development’ and had ‘not received further advice on the timing of any domestic gas supply from Pluto LNG’.<sup>104</sup>
- 4.13 When asked how AEMO factors in domestic gas supply from new projects such as Pluto, Mr Joachim Tan, Senior Analyst, replied: ‘we have spoken to them, and last year they provided us with information relating to Pluto, which was published in the GSOO’.<sup>105</sup>
- 4.14 That information, though, does not provide specific details of expected domestic gas supply from Pluto. As well as a brief description of the domestic gas obligations of the Pluto project and a note that Pluto will increase WA’s production capacity, the information on the Pluto project contained in the 2015 GSOO relates to pipeline flows on the Dampier to Bunbury natural gas pipeline, LNG export capacity, prospective LNG export facilities, total gas demand scenarios, LNG utilisation rates and total gas demand forecast assumptions.<sup>106</sup> There does not appear to be any data on the domestic gas supply from Pluto or when that might be expected to be available to the market. The DomGas Alliance also argues that ‘there is nothing contained in the 2015 GSOO which provides any new information about how or when Woodside will deliver on its domestic gas obligation from the Pluto project’.<sup>107</sup>
- 4.15 Given that the Pluto project’s first LNG was produced in 2012 and that up to the end of 2015 the project had produced approximately 133 MMboe or nearly 14 million tonnes of LNG, it is reasonable to assume that Woodside Energy would be required to begin marketing the Pluto project’s domestic gas by the end of 2017.<sup>108</sup>
- 4.16 Importantly, the Committee is of the view that domestic gas from the Pluto project should have been included in the 2015 GSOO and should be included future GSOOs.

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103 *ibid*, p 65.

104 *ibid*, p 65.

105 Mr Joachim Tan, Senior Analyst, System Capacity WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 9.

106 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 4, p 28, p 35, p 37, p 43, p 52, p 62 and p 64.

107 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 6.

108 Woodside Energy’s commitment to market and make gas available for the domestic market commences five years after the first LNG is produced, which was 2012, or after the 30 millionth tonne. According to Woodside Energy Annual Reports for 2012, 2013, 2014 and 2015, the total LNG production for Pluto (not including condensate) was approximately 133 MMboe or nearly 14 million tonnes.

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- 4.17 As the DomGas Alliance suggests, under the Rules, the IMO previously, and AEMO currently, have the power to request information from Woodside Energy in relation to its Pluto project—‘when do you see your obligation beginning, and how much are you going to be supplying then?’<sup>109</sup>—and Woodside Energy are obliged to provide that information.
- 4.18 Under these circumstances, particularly when combined with the 2015 GSOO statement that there had been no further advice on the timing of the Pluto domestic gas supply, the DomGas Alliance questions whether the IMO has asked Woodside Energy for such information.<sup>110</sup> As Mr Matt Brown explained, the:

*point is I do not think the question has been asked, because the latest GSOO just says ‘We have not been able to get information.’ Hang on, ‘The IMO has not received further advice on the timing of any domestic gas supply from Pluto LNG.’ You think, ‘Well, why not?’ You have got all this power under the rules and regulations, surely, if the question has been asked.*<sup>111</sup>

- 4.19 It is not clear to the Committee why AEMO was not able to insist on getting information for the Pluto project for inclusion in the 2015 GSOO. The Committee certainly expects the Department of State Development to be monitoring the Pluto project to ensure that Woodside Energy is meeting its domestic gas obligations, including marketing.

### Compliance with requests for information

- 4.20 AEMO explained that one of its ‘key values is stakeholder engagement’ and that it ‘prefer[s] to have a constructive relationship with someone. We think that will produce a better outcome than bringing the rule book out’.<sup>112</sup>
- 4.21 AEMO noted that it has ‘used the rule book in the past when we have not been getting the information we required through that constructive engagement’.<sup>113</sup> This had occurred on two occasions— for the 2013 and 2014 WA GSOO—with the same producer.<sup>114</sup> However, AEMO also advised that the producer had complied with the

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109 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 11.

110 *ibid.*

111 *ibid.*

112 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 5.

113 *ibid.*

114 *ibid.*, p 5 and p 6.

request for information within the timeframe requested, but because of the time AEMO 'had left to finish the report, we could not really incorporate it'.<sup>115</sup>

4.22 When asked if AEMO had perhaps been too generous with the time allowed for producers to provide information, AEMO agreed and advised that it is 'currently going through internal processes to rectify this. This is likely to be implemented in time for the 2017 WA GSOO'.<sup>116</sup>

4.23 The Committee was concerned about any potential impact that not including information such as this would have on the accuracy of the GSOO, and requested further information from AEMO. AEMO advised that there was no impact as it:

*had estimated the quantity of gas reserves for the North West Shelf JV from Woodside's gas reserves information that was published at the beginning of the year and the producer had sufficient gas reserves. The request for information had verified that AEMO was sufficiently close.*<sup>117</sup>

4.24 The DomGas Alliance argues that the situation does 'not inspire any great confidence', and that 'it stretches credibility that the same company could be involved in the same mix up two years running'.<sup>118</sup> For the DomGas Alliance:

*there is either something wrong with the way AEMO (then IMO) exercised its powers or there is an appearance that one company dragged its feet or did not provide sufficient information in the first instance, which then required a formal AEMO follow-up request.*<sup>119</sup>

4.25 The Committee appreciates AEMO's approach to stakeholder engagement and wanting to take a cooperative approach to gathering information. Nevertheless, it is imperative that AEMO moves to address this issue or risk gas market participants losing further confidence in the GSOO.

4.26 It is also essential that producers cooperate fully and in good faith with AEMO in its efforts to produce an accurate and reliable GSOO. Perhaps, in future, the GSOO should contain information in relation to what information was requested but not provided by which producers.

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115 Mr Joachim Tan, Senior Analyst, System Capacity WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 5.

116 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, Electronic Mail, 14 September 2016, p 1.

117 *ibid.*

118 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 3.

119 *ibid.*, p 2.

## Chapter 4

- 4.27 Government needs to publish domestic gas obligations for projects not subject to their own legislation—for example, the Pluto and Wheatstone projects—and what efforts producers are taking to meet those obligations.

# Chapter 5

## Supply Assumptions in the GSOO

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### GSOO forecast assumptions

- 5.1 The GSOO, as a forecast, is necessarily based on particular assumptions. The 2015 GSOO notes that its assumptions include:
- *forecast WA economic growth;*
  - *resources sector outlook;*
  - *LNG outlook;*
  - *domestic gas prices;*
  - *WA electricity consumption; and*
  - *production efficiency assumptions (in the resources sector).*<sup>120</sup>
- 5.2 Chapter 3 of the 2015 GSOO details its forecast methodology and assumptions, which it states are ‘based on the latest available information and subject to internal scrutiny and annual refinement’.<sup>121</sup> The ‘potential gas supply forecast methodology considers two important factors’, namely gas production capacity and an estimate of producers’ willingness to supply.<sup>122</sup> Mr Joachim Tan, a Senior Analyst with AEMO, advised that ‘the potential gas supply is a measure of the willingness to supply’.<sup>123</sup>
- 5.3 The 2015 GSOO also noted that ‘historically, gas supply and demand has been influenced by’ a number of factors including ‘LNG export pricing and demand, which affects the domestic gas price and WA gas producers’ willingness to supply the domestic market’.<sup>124</sup>
- 5.4 This Chapter does not discuss all of the assumptions in the GSOO. Rather, it concentrates on two important and interconnected assumptions raised in evidence—a

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120 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 7.

121 *ibid.*

122 *ibid.*, p 43.

123 Mr Joachim Tan, Senior Analyst, System Capacity WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 8.

124 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 46.

## Chapter 5

producer's willingness to supply and whether domestic gas will be supplied at anything less than LNG netback price.<sup>125</sup>

### **A producer's willingness to supply**

5.5 While WA has had a domestic gas policy since the 1970s, the *WA Government policy on securing gas supplies (WA domestic gas policy)* was only formalised in 2006, the same year the WA Government signed an agreement with Woodside for the Pluto project. The policy was clarified in 2012, just prior to the development of the Wheatstone agreement.<sup>126</sup>

5.6 The term willingness to supply is not mentioned in the *WA domestic gas policy*. Rather, under this policy, 'LNG producers will commit to make available domestic gas by':

- *reserving domestic gas equivalent to 15 per cent of LNG production from each LNG export project*
- *developing and obtaining access to the necessary infrastructure (including a domestic gas plant, associated facilities and offshore pipelines) to meet their domestic gas commitments as part of the approvals process*
- *showing diligence and good faith in marketing gas to the domestic market.*<sup>127</sup>

5.7 While not specifically defined in the state agreement Acts, the Third Supplementary Agreement to the *North West Gas Development (Woodside) Agreement Act 1979 (WA)* gives an indication of a producer's marketing obligations. Schedule 5, cl 2(5)(4)(b) states that the Joint Venturers must discharge their in good faith, active, diligent and ongoing marketing obligations through exercising the appropriate level of 'skill, prudence and foresight':

*including, without limitation, through employing staff to market Domgas, engaging regularly with potential buyers of Domgas in the said State and assessing demand for Domgas through activities such as market research and discussions with potential buyers.*

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125 While there are different methodologies for calculating LNG netback, it is generally defined as the revenue from the sale of the oil less the costs of getting that oil to market, including but not limited to production, transport and marketing, as well as royalties.

126 Department of State Development, 'Domestic gas policy', Government of Western Australia, Perth. Available at: <http://www.dsd.wa.gov.au/what-we-do/advise-on-economic-policy/domestic-gas-policy>. Accessed on 20 September 2016. Chevron took a final investment decision on its Wheatstone project in September 2011.

127 Department of State Development, 'Domestic gas policy', Government of Western Australia, Perth.



- 5.8 The Act also provides that the Joint Venturers must ‘negotiate in good faith with any bona fide purchasers of New Domgas as to the price and terms of supply of New Domgas available for sale’.<sup>128</sup>
- 5.9 At its simplest, the *WA domestic gas policy* obliges producers to reserve a negotiated quantity of gas from each project for the domestic market; that is, this reserved gas cannot be exported as LNG and is only of value to producers for sale in the domestic market.
- 5.10 However, the situation is more complex. The WA Government enters into State Agreements with proponents of major resources projects for the development of those resources. These agreements ‘detail the rights, obligations, terms and conditions for the development of the specific project’, and are ratified by specific Acts of Parliament.<sup>129</sup> State Agreements for the development of LNG projects set out the obligations of the producers to supply domestic gas.
- 5.11 At present, WA has the following State Agreements with LNG producers:
- *Barrow Island Act 2003* (which incorporates the Gorgon Gas Processing and Infrastructure Project Agreement); and
  - *North West Gas Development (Woodside) Agreement Act 1979*, (which incorporates the 2014 Variation Agreement).
- 5.12 The WA Government has also signed the *Browse FLNG development domestic gas and supply chain key principles agreement*, which, amongst other things, contains key principles for the supply of domestic gas from the Browse project. There are also agreements in place for domestic gas from the Pluto and Wheatstone projects, and while some general information is available, the detailed agreements are not publicly available.

### Ongoing diligent and good faith marketing

- 5.13 In discussing the different domestic gas supply forecasts by the GSOO and Wood Mackenzie, the DomGas Alliance suggested this ‘might be because people have misinterpreted the obligation to market as being an obligation to supply’.<sup>130</sup> The marketing obligations associated with WA natural gas reserves merit closer scrutiny.

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128 Schedule 5, cl 2(5), *North West Gas Development (Woodside) Agreement Act 1979* (WA). ‘New Domgas’ is the required percentage of gas reserved for the domestic market during the term of the variation agreement.

129 Department of State Development, ‘What is a state agreement’, Government of Western Australia, Perth. Available at: <http://www.dsd.wa.gov.au/what-we-do/manage-state-agreements/what-is-a-state-agreement>. Accessed on 20 September 2016.

130 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 8.

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5.14 Under cl 17(1) of Schedule 1 to the *Barrow Island Act 2003* (WA), the Gorgon project must reserve 2,000 petajoules for domestic gas. Clause 17(3) of Schedule 1 also sets out the marketing obligations for Gorgon Joint Venturers, as follows:

*From the Commencement Date until at least 300 TJ per day of natural gas is first delivered from Barrow Island to domestic gas infrastructure on the mainland the Joint Venturers shall:*

(a) *actively and diligently undertake:*

(i) *ongoing marketing of natural gas in Western Australia (including investigation of proposals for using such gas as petrochemical feedstock); and [...]*

5.15 However, under cl 22(1) of Schedule 1, the parties may vary the agreement ‘for the purpose of more efficiently or satisfactorily implementing or facilitating any of the objects of this Agreement’.

5.16 The November 2014 variation agreement for the *North West Gas Development (Woodside) Agreement Act 1979* (WA), at Schedule 5, cl 2(5), sets out the ‘new Domgas commitment’ for the project. The Joint Venturers’ marketing obligations are set out in cl 2(5)(4) of Schedule 5. This requires active and diligent ongoing marketing of ‘new domgas’ in good faith ‘with a view to achieving a reasonably stable and regular supply profile for Domgas’ over the term of the agreement.<sup>131</sup>

5.17 Under this agreement, the Joint Venturers must reserve 15 per cent for ‘new Domgas’ or ‘such lesser percentage as the Minister may approve’, as per cl 2(5)(6) of Schedule 5, which states that the Minister may approve a lesser percentage if he or she is satisfied:

- that there is or will be adequate domestic gas supply considering developed natural gas projects and those for which a financial investment decision to proceed has been made; and the Joint Venturers have been meeting their Domgas commitments; or
- for any reason the Minister considers acceptable, providing the Joint Venturers have been meeting their Domgas commitments.

5.18 Under cl 2.2.1 of the Key Principles Agreement for domestic gas from the Browse FLNG project, the Browse Joint Venturers (BJV) agree to reserve 15 per cent of Western Australia’s share of the Torosa field. As per cl 2.2.2, the BJV have also agreed to diligent, good faith marketing with potential buyers. Clause 2.2.3 of the agreement states that if mutually agreeable terms between the BJV and buyers cannot be reached

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131 Schedule 5, Cl 2(5)(4)(a) and cl 2(5)(4)(b), *North West Gas Development (Woodside) Agreement Act 1979* (WA).

through diligent, good faith marketing, and the gas is not sold, 'it must be kept in reserve for future domestic use, and cannot be exported'.<sup>132</sup>

- 5.19 However, also under this agreement, at cl 2.2.7, the BJV may ask the Minister to consider reducing the reserved gas.
- 5.20 According to the *WA domestic gas policy*, LNG producers' efforts to undertake diligent and good faith marketing of gas into the domestic market 'may be subject to independent review'.<sup>133</sup> The *Barrow Island Act 2001* (WA), for example, contains cl 17(4) which states that the Minister may appoint, at the Joint Venturers' cost, an independent person to advise 'the extent to which the Joint Venturers have actively and diligently undertaken ongoing marketing' in accordance with their obligations. The *North West Gas Development (Woodside) Agreement Act 1979* (WA) contains similar provisions. Clause 2(5)(4)(h) to Schedule 5 provides that the Joint Venturers must report annually on domestic gas sold and delivered during the reporting period, and cl 2(5)(5) states that the Minister may appoint, at the cost of the Joint Venturers, an independent person to advise 'on the extent to which the Joint Venturers have performed their obligations under subclause (4) of this Clause'. Under both Acts, the Joint Venturers must provide the independent persons all the information required to undertake his or her assessment.
- 5.21 The DomGas Alliance argues that 'there is not a lot of visibility around [... the domestic gas agreements' apart from the *Barrow Island Act 2003* (WA).<sup>134</sup> Furthermore, Mr Brown draws attention to the subjective nature of terms such as diligent and good faith, stating that:
- there are plenty of outs for the producers in terms of they are required to diligently market it, and your interpretation of 'diligently market' and their interpretation and our interpretation may be completely different. If they cannot market it in, then they can seek an exemption—or if they cannot get the price that they want, they can seek an exemption and off it goes.*<sup>135</sup>
- 5.22 This raises the second important assumption, that is, that producers are willing to supply domestic gas at prices that are lower than LNG netback.

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132 Legislative Assembly of Western Australia, Tabled Paper 3035, 23 June 2015.

133 Department of State Development, 'Domestic gas policy', Government of Western Australia, Perth.

134 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 5.

135 *ibid.*

## Willingness to supply ... at a price

5.23 While there is no requirement under the *Gas Services Information Rules (WA) Rules* for the GSOO to contain comment on gas prices, AEMO believes it helps 'to work out future supply. It is obvious that the higher the price, the more supply you are going to get'.<sup>136</sup>

5.24 The 2015 GSOO states that its potential gas supply model:

*assumes a linear relationship between additional (uncontracted) supply and the domestic gas price. This assumption is applied as follows: [...]*

*for LNG-linked facilities, all spare capacity (subject to the availability rate for the facility) is assumed available for uncontracted supply if the domestic gas price reaches or exceeds the LNG netback price; and*

*for domestic gas only facilities, all spare capacity (subject to the availability rate for the facility) is assumed available for uncontracted supply if the domestic gas price reaches an assumed rate of return on top of the cost of production.<sup>137</sup>*

5.25 The 2015 GSOO also acknowledges that:

*the lower forecast domestic gas price means gas producers' willingness to supply is likely to be diminished. Even though production capacity is expected to increase during the forecast period, low prices mean gas producers may consider it uneconomic to supply the domestic market in the short-term.<sup>138</sup>*

5.26 The 2015 GSOO also notes that the expected improvement in the United States' economy and anticipated interest rates rises will increase LNG netback prices in Australian dollar terms. This, in turn, is expected to 'drive an increase in domestic gas prices despite lower forecasts for Asia Pacific LNG prices'.<sup>139</sup> According to the DomGas Alliance:

*this would appear to be a confirmation that the domestic price is linked to the LNG netback price and, logically, nowhere would this link be*

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136 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 4.

137 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 45. The assumed rate of return for domestic-only facilities is 25 per cent. Emphasis added.

138 Independent Market Operator, *Gas Statement of Opportunities*, November 2015, p 67.

139 *ibid*, p 56.

*stronger than for LNG producers with a gas reservation obligation to market their gas into the domestic market.*<sup>140</sup>

5.27 However, during a hearing, representatives of AEMO suggested that producers would be willing to provide gas into the domestic market at less than LNG netback.

5.28 As Mr Tan explained, AEMO determines a producer's willingness to supply based on a the following calculation of potential gas supply:

*first we do a projection of oil prices, and it is an oil-linked formula, and based on that we project what LNG would be, and based on that we calculate a netback price. The netback price is only a maximum cap for LNG-linked facilities, and the minimum is the production cost. So the domestic price actually floats in between that and it never exceeds LNG netback. For domestic-only facilities, the minimum price is production cost and the top price is a real return of plus 25 per cent. That is how it has been managed'.*<sup>141</sup>

5.29 Mr Parrotte also explained that the price forecast in the 2015 GSOO is based on their belief that 'it will move somewhere between the cost of production, [...] and with probably a cap on the LNG netback price, and it will float somewhere between those two'.<sup>142</sup>

5.30 In discussing a possible reason for the difference between the 2015 GSOO forecasts and that of Wood Mackenzie, Mr Parrotte explained that AEMO's 'view is—we have seen it over the years—that an LNG backed supply will put gas into the domestic market *if the price is right*, predominantly because they get that return right there and then rather than waiting for a future outcome'.<sup>143</sup> Based on their observations, AEMO argued that producers 'will make gas available as long as it is above their cost of supply. That is definitely the floor. If it is above the cost of supply, then they will do it simply to bring forward a cash revenue'.<sup>144</sup>

5.31 There appears to be some contradiction between the potential gas supply model as outlined in the 2015 GSOO and AEMO's position that LNG producers will sell gas into the domestic market at a price that is less than LNG netback.

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140 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 6. In September 2010, the ACCC noted the range of factors that had been driving up domestic gas prices in Western Australia, and confirmed that the '...price of LNG impacts on the domestic price'. See: ACCC Final Determination - NWS Project, 8 September 2010, s. 5.241.

141 Mr Joachim Tan, Senior Analyst, System Capacity WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 8. Emphasis added.

142 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 4.

143 *ibid.* Emphasis added.

144 *ibid.*, p 7.

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- 5.32 The GSOO's measure of willingness to supply based on a calculation of potential gas supply is just that—an estimation of potential supply, 'not actual supply or even intent to supply. It is a process of asking producers how much they would be willing to supply into the market at the price point estimated by AEMO for the purposes of compiling the GSOO'.<sup>145</sup>
- 5.33 The DomGas Alliance has interpreted Mr Tan's comments in relation to the netback price being a maximum cap for LNG-linked facilities as 'creat[ing] the impression that AEMO does not consider the price expected by LNG producers will exceed LNG netback'.<sup>146</sup> When taken with Mr Parrotte's comments, 'the impression created is that LNG producers will supply into the domestic market at lower prices (somewhere above production cost) but with LNG netback as the maximum'.<sup>147</sup>
- 5.34 While this is a reasonable interpretation of AEMO's comments, the Committee is not convinced that the DomGas Alliance is correct. Rather, the Committee understands that producers will sell gas into the domestic market when it is commercially viable to do so, even if this means supplying at less than LNG netback. The Committee also notes that selling into the WA market can be a useful way for producers to spread risk, even at different price points.
- 5.35 The 16 August 2016 *Minutes—WA gas consultative forum* show that 'it was noted that domestic gas prices are not driven by LNG netback prices'.<sup>148</sup> The minutes also note that 'AEMO welcomed suggestions for an alternative maximum gas price'.<sup>149</sup> At that meeting, stakeholders also 'suggested that more information around price forecasts and how they are derived would be useful'.<sup>150</sup>

### **The Western Australian market is fundamentally different**

- 5.36 In discussing producers' willingness to provide LNG-based supply into the domestic market, AEMO appeared to be basing its view on the circumstances existing in the eastern states market. While acknowledging that LNG facilities in Queensland were a relatively recent development, Mr Parrotte advised that these facilities were already starting to put 'gas into the domestic market. [...] APA have announced the build of an \$80 million or \$100 million pipeline to connect an LNG facility to the domestic market because they are seeing that there is going to be a shortage and they will be able to get a return on that investment'.<sup>151</sup>

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145 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 4.

146 *ibid.*

147 *ibid.*

148 AEMO, *Minutes—WA gas consultative forum*, 16 August 2016, p 3.

149 *ibid.*

150 *ibid.*

151 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 4.

5.37 As the 2011 Economics and Industry Standing Committee report pointed out, there are a number of structural differences between interstate domestic gas markets and that in WA.<sup>152</sup> In summary, it found that:

*interstate gas reserves are located across multiple basins that are generally much closer to the centres of demand and transmission pipeline infrastructure. Moreover, with a fully integrated transmission system, gas producers from four states must compete with each other to supply the local market. Furthermore, demand for domestic gas in other states is tempered by a far greater reliance on coal-fired power generation.*<sup>153</sup>

5.38 These structural differences remain.

5.39 At the time of the 2011 report, that Committee found that the ‘absence of an alternative LNG market on the eastern seaboard [... was] another contributor to the lower price outcomes being observed there’.<sup>154</sup> It was WA’s exposure to international markets that allowed producers in this state to ‘seek an LNG netback equivalent price for their domestic gas’.<sup>155</sup> It was expected that when Queensland LNG exports began the eastern states domestic gas prices would ‘trend upwards towards netback equivalents’.<sup>156</sup>

5.40 Furthermore, that Committee found that LNG prices did impact on WA’s domestic gas prices and that ‘the concentration of suppliers and an alternative market offshore with a seemingly voracious appetite for LNG has provided the ideal setting for opportunity cost pricing to occur in Western Australia’.<sup>157</sup>

5.41 While this may appear to be a reasonable situation, it can result in market distortions. For example, the Committee is aware that producers are not achieving LNG netback on existing contracts, and that these contracts are not subject to inflation or rise and fall. Rise and fall contract provisions are a risk sharing and protection mechanism that links part of the price of a feedstock product to the market price of the final product. In this way, sellers ‘share in the buyer’s margin of the final product’ while buyers stay competitive because their ‘main cost input will rise and fall with the market prices for the final product’.<sup>158</sup>

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152 Economics and Industry Standing Committee, *Inquiry into domestic gas prices*, 24 March 2011, p xix.

153 *ibid*, p xix; and pp 57–60.

154 *ibid*, p 60.

155 *ibid*.

156 *ibid*.

157 *ibid*, p 73 and p 74.

158 Chiam, Louis and Ahuja, Vishal, ‘Long-term supply contracts—time for review’, in *Australian Resources and Energy Law Journal*, Vol 25, 2006, pp 153–154. Available at:

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- 5.42 Also noting that the east and west coast markets are ‘fundamentally different’, the DomGas Alliance advised that AEMO’s ‘Queensland example references on-shore gas piped to an LNG facility. All of Western Australia’s LNG projects are offshore piped to an on-shore plant’.<sup>159</sup> The DomGas Alliance also noted that the APA pipeline referred to by AEMO will ‘link the Wallumbilla gas hub to an existing pipeline that feeds the APLNG [Australia Pacific LNG] plant’.<sup>160</sup> This pipeline will allow APLNG ‘to take gas from the Wallumbilla gas hub while giving it the option to supply back into it’.<sup>161</sup> It has recently been reported that east coast gas market prices have been pushed ‘higher than those of spot LNG exports’.<sup>162</sup> Gas users in Queensland have signalled concern at the significant increases in gas prices, predicted to triple between 2014 and 2021.<sup>163</sup>
- 5.43 For the DomGas Alliance, ‘the rush to LNG exports has led to a domestic gas shortage and a rapid escalation in domestic gas prices’ meaning that APLNG ‘can receive a better domestic price than for LNG on some spot cargoes’.<sup>164</sup> Furthermore, the DomGas Alliance argues that, while it seems that Queensland LNG producers may be willing to supply the domestic gas spot market, ‘this is of no relevance to the Western Australian GSOO’ which does not consider short-term gas contracts in its forecasts ‘due to the relatively small scale of the short-term market’.<sup>165</sup>
- 5.44 The Committee acknowledges that domestic gas pricing is a complex issue. The Economics and Industry Standing Committee’s 2011 report bears witness to that fact.
- 5.45 It is clear, though, that a producer’s obligation to market does not equate to an obligation to supply into the domestic market at a price that is not commercially viable.
- 5.46 The GSOO needs to be clearer in its statements in relation to its supply assumptions in the GSOO. It is essential that all stakeholders in the gas industry, including potential and existing producers, domestic gas users, wholesalers, retailers and regulatory bodies, have a high level of confidence in the GSOO as the repercussions of reduced confidence in its forecasts are negative and significant.

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<http://www.austlii.edu.au/au/journals/AURELawJl/2006/32.pdf>. Accessed on 30 September 2016.

159 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 2.

160 *ibid.*

161 *ibid.*

162 ‘Australia Pacific LNG builds domestic pipeline’, *The Australian*, 6 September, 2016 as cited in: Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 2.

163 ‘Gas crisis fears drive reform on CSG projects’, *the Australian*, 18 August 2016, as cited in: Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 3.

164 Mr Matt Brown, Executive Director, DomGas Alliance, Letter, 21 September 2016, p 3.

165 *ibid.*



# Chapter 6

## Conclusion

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### Other issues for consideration

- 6.1 The main focus of this report is on the application of the *Gas Services Information Rules* (the Rules) in the compilation of the GSOO, with particular attention on the gathering of information from producers. This necessarily raised issues around the key assumptions in the GSOO methodology relating to a producer's willingness to supply and whether producers would supply domestic gas at anything less than LNG netback price.
- 6.2 The evidence presented also raised a number of other concerns about the compilation of the GSOO. These can broadly be separated into two main issues; first is the level of transparency around a number of factors used in the compilation of the GSOO; second is the possible repercussions of an inaccurate GSOO.
- 6.3 Given the purpose of the review and the time available to the Committee, it has not been possible to undertake in-depth research and analysis of these issues, or to seek input from a wide range of stakeholders. Nevertheless, because of the importance of the GSOO and the seriousness of the issues raised, the Committee has decided to briefly mention them here.

### The need for increased transparency

- 6.4 The DomGas Alliance voiced its concerns about the level of transparency in the GSOO. According to Mr Matt Brown, the DomGas Alliance has 'serious concerns that the GSOO in its current form is not really providing any greater transparency around future supply'.<sup>166</sup>
- 6.5 The DomGas Alliance's call for increased transparency echoes those raised in relation to a number of factors at an AEMO stakeholder forum, as indicated by the following:

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166 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 3.

## Chapter 6

*It would be good if the GSOO is transparent in terms of total non-power generation gas demand forecast assumptions ie. consumption from residential and commercial customers.*<sup>167</sup>

*[...] Stakeholders noted that previous GSOOs have placed a lot of emphasis on the supply and demand forecasts and suggested that more information around price forecasts and how they are derived would be useful.*<sup>168</sup>

*Government incentives for domestic drilling, and transparency around domestic gas obligations and offsets will better inform the domestic market and future investment.*<sup>169</sup>

- 6.6 Furthermore, Mr Tim Langmead, Director, External Relations, Fortescue Metals Group Ltd, stated that unmet latent demand ‘is not transparently dealt with’ in the GSOO.<sup>170</sup>
- 6.7 Closely related to latent demand is the issue of demand destruction. Referring to the April 2015 AEMO report on the situation on the east coast, the DomGas Alliance noted that the report pointed ‘to demand destruction, particularly in Queensland’, arguing that the ‘supply–demand gap was not going to be as great’, something seen as ‘good news’.<sup>171</sup> However, according to Mr Matt Brown, the detail showed that ‘the supply–demand gap was not going to be so great because industry was closing down because they could not afford the gas’.<sup>172</sup>
- 6.8 For the DomGas Alliance this exemplifies ‘one of the weaknesses’ it sees in the GSOO—‘it does not look at demand destruction. You are talking about new business opportunities; we are talking about existing industry’.<sup>173</sup> The DomGas Alliance interprets the GSOO as indicating that ‘gas prices will continue to rise and supply will come in because of those gas prices and demand will stay solid and also rise slowly’.<sup>174</sup> Consequently, ‘there has to come a point, particularly with some of our members, whereby if a gas price hits a certain point, do they continue their operations?’<sup>175</sup>
- 6.9 As noted previously, AEMO sees the purpose of the GSOO as providing transparency so that stakeholders in the gas market can make their own decisions based on that

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167 AEMO, *Minutes—WA gas consultative forum*, 16 August 2016, p 3.

168 *ibid.*

169 *ibid.*

170 Mr Timothy Langmead, Director, External Relations, Fortescue Metals Group Ltd, *Transcript of Evidence*, 24 August 2016, p 12.

171 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 7.

172 *ibid.*

173 *ibid.*

174 *ibid.*

175 *ibid.*

information. Having taken over the compilation of the GSOO, AEMO has acknowledged the need for greater transparency in relation to the assumptions on which the GSOO is based.

- 6.10 For example, in relation to the call for greater transparency around domestic gas obligations and offsets, AEMO has ‘agreed to consider these issues in the GSOO’.<sup>176</sup> Furthermore, during AEMO’s hearing, Mr Cameron Parrotte stated more than once that ‘the key learning from last year is to provide greater transparency in what is behind the assumptions’.<sup>177</sup>
- 6.11 Given the key role the GSOO has in providing ‘an overview, technical and market data and additional information regarding the status and opportunities in the natural gas market in Western Australia’,<sup>178</sup> it is imperative that it achieves the highest level of transparency. Only then will gas market stakeholders be able to confidently consider the GSOO in their decision-making.
- 6.12 The Committee strongly urges AEMO to fulfil its commitment to increase the level of transparency in future GSOOs.
- 6.13 It is also incumbent upon the Western Australian Government to assess the level of transparency in the GSOO and monitor AEMO’s performance in increasing the GSOO’s transparency.
- 6.14 While the Committee is aware of the proprietorial nature of the Wood Mackenzie analysis of the WA gas market, it also encourages Wood Mackenzie to provide increased transparency for the assumptions on which its analysis is based and, in particular, in relation to any significant differences between its analysis and that of the GSOO. This will help gas market stakeholders better understand the analyses and improve the basis on which they make decisions.
- 6.15 The Committee also strongly encourages the Economics and Industry Standing Committee in the 40<sup>th</sup> Parliament to monitor the compilation of the GSOO.

### **Potential repercussions for government of an inaccurate GSOO**

- 6.16 To say that it is imperative that the GSOO is as accurate and transparent as possible is to state the obvious. The consequences of an inaccurate GSOO are significant and negative for all gas market stakeholders and, ultimately, for the Western Australian economy.

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176 AEMO, *Minutes—WA gas consultative forum*, 16 August 2016, p 3.

177 Mr Cameron Parrotte, Executive General Manager WA, Australian Energy Market Operator, *Transcript of Evidence*, 7 September 2016, p 10. See also p 5 and p7.

178 Independent Market Operator, ‘Disclaimer’, *Gas Statement of Opportunities*, November 2015.

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- 6.17 This review has focussed on the different forecasts of domestic gas supply and doubts raised about the accuracy of the GSOO's supply forecast, particularly in comparison with Wood Mackenzie analysis. This situation exemplifies the potential for negative consequences for government if the GSOO is inaccurate.
- 6.18 In discussing the GSOO's forecast of a gas surplus, the DomGas Alliance argued that this 'rosy outlook' creates complacency.<sup>179</sup> Mr Matt Brown acknowledged that the government 'has a good attitude towards the broader problem', but that over the past 12 to 18 months the 'overly optimistic outlook of the GSOO' has created 'an air of complacency within sections of the bureaucracy and parts of the government'.<sup>180</sup> With the GSOO showing a '40 per cent oversupply' Mr Brown observed that the government has 'a whole range of other issues' it needs to contend with, and so does not focus its efforts on the domestic gas market.<sup>181</sup>
- 6.19 Closely related to the potential for complacency in government is the potential for poor government policy and decision-making in relation to the state's energy requirements. According to the DomGas Alliance, the 'clear danger here is that if the government is making energy policy decisions based on the GSOO outlook, there is a serious possibility it will be making the wrong decisions'.<sup>182</sup> According to Mr Brown, 'to have a document that says, "Look, there's no problem", to us, is not sustainable and it is not going to lead to good policy'.<sup>183</sup> The consequences of misinformed policy 'for domestic industry in Western Australia are potentially disastrous'.<sup>184</sup>
- 6.20 If, as the Wood Mackenzie analysis forecasts, there is actually going to be a shortage of gas in 2022, based on the GSOO forecast of an oversupply the government is not able to ask questions about the domestic gas policy such as 'Is it meeting the requirements?'; Is it time to move beyond the policy?:

*What can we do to further encourage domestically focused producers to come into the market? Is there something that is actually preventing them from doing so? What can we do as a government? Are there incentives? Is there red tape that we can clear there?*<sup>185</sup>

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179 Mr Timothy Langmead, Director, External Relations, Fortescue Metals Group Ltd, *Transcript of Evidence*, 24 August 2016, pp 7–8. Mr Langmead also raised the issue of the forecast oversupply making it difficult for businesses to obtain finance.

180 Mr Matthew Brown, Executive Director, DomGas Alliance, *Transcript of Evidence*, 24 August 2016, p 2 and p 9.

181 *ibid*, p 9.

182 *ibid*, p 2.

183 *ibid*, p 10.

184 *ibid*, p 2.

185 *ibid*, pp 9–10.

6.21 Furthermore, in discussing the absence of consideration of demand destruction in the GSOO, the DomGas Alliance also noted the potential for government not to be fully informed. According to Mr Brown:

*there is nothing in this GSOO which would say to government, "Hey, look, we've got a looming crisis. If gas prices keep hitting these price points, X number of companies maybe gone, X numbers of jobs may be gone." That then allows government to make decisions about whether the market is operating in an efficient way to deliver what the community wants from its gas resources.<sup>186</sup>*

### Concluding remarks

- 6.22 The Committee is not in a position to say whether the GSOO domestic gas supply forecast is more or less accurate than that produced by Wood Mackenzie. The GSOO and Wood Mackenzie forecasts are produced with different objectives in mind. The GSOO aims to provide a forecast domestic gas demand and supply so that stakeholders can understand the status of the market and any potential opportunities it holds. Wood Mackenzie, on the other hand, provides information to their clients to help them make investment decisions, and are thus relatively conservative in relation to matters such as gas reserves. The fact that the forecasts are different does not necessarily mean that either is inaccurate; both could be accurate based on the particular assumptions made in the forecasting model. Ultimately, it is the validity of the assumptions upon which analysts base their forecasts that determine the accuracy and validity of the forecasts.
- 6.23 This limited review of the Rules relating to the compilation of the GSOO has revealed and discussed concerns about the possible misinterpretation of a producer's obligation to undertake diligent and good faith marketing as an obligation to supply gas into the domestic market. Closely linked to this is the producers' willingness or otherwise to supply domestic gas at prices lower than LNG netback. Assumptions around these issues will have a significant impact on the ultimate gas supply forecast.
- 6.24 The Committee's view is that there are issues to be addressed and encourages AEMO, government and stakeholders to cooperate to allow an increased level of confidence in the GSOO.
- 6.25 The following are a number of issues that the Committee feels might usefully be addressed in any inquiry into the GSOO by the Economics and Industry Standing Committee of the 40th Parliament:

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186 *ibid*, p 7.

## Chapter 6

- the way in which the Department of State Development monitors and reports on producers' compliance with their supply and marketing obligations under the WA domestic gas policy and/or state agreements;
- what consideration government has given to the significant differences in the supply forecasts and whether there is any level of complacency in government in relation to the forecast oversupply of domestic gas, particularly given the potential for demand destruction;
- the need for greater transparency on domestic gas agreements that are not subject to State Agreement Acts so as to provide greater certainty and accuracy in forecasts;
- the likelihood that the WA domestic gas market can operate as a competitive market;
- the way in which government monitors the performance of AEMO as the compiler of the GSOO and the accuracy of the GSOO;
- the possible need for AEMO to develop a more formal annual process for gathering information for the GSOO; and
- whether the GSOO could usefully:
  - include commentary on how the WA market compares with markets in other states;
  - place greater focus on the availability of gas for existing industrial users, and to consider the potential for 'demand destruction' associated with uncertainty over the availability of future gas for those users;
  - provide insight into spot and future market pricing in the WA gas market, as it does in other states;
  - include commentary on the potential future role of gas in an energy market for which renewable sources are likely to play an increasingly significant role;
  - include commentary on the market price of gas in WA and possible movements in domestic gas pricing over the forecast period; and
  - include an assessment of the accuracy of previous forecasts and an explanation of any variation between the forecast and the actual level of gas supplied into the market.



MR I C BLAYNEY, MLA  
CHAIRMAN

# Appendix One

## Committee's functions and powers

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The functions of the Committee are to review and report to the Assembly on: -

- a) the outcomes and administration of the departments within the Committee's portfolio responsibilities;
- b) annual reports of government departments laid on the Table of the House;
- c) the adequacy of legislation and regulations within its jurisdiction; and
- d) any matters referred to it by the Assembly including a bill, motion, petition, vote or expenditure, other financial matter, report or paper.

At the commencement of each Parliament and as often thereafter as the Speaker considers necessary, the Speaker will determine and table a schedule showing the portfolio responsibilities for each committee. Annual reports of government departments and authorities tabled in the Assembly will stand referred to the relevant committee for any inquiry the committee may make.

Whenever a committee receives or determines for itself fresh or amended terms of reference, the committee will forward them to each standing and select committee of the Assembly and Joint Committee of the Assembly and Council. The Speaker will announce them to the Assembly at the next opportunity and arrange for them to be placed on the notice boards of the Assembly.





## Appendix Two

### Hearings

Date	Name	Position	Organisation
24 Aug 2016	Mr Matthew Brown	Executive Director	DomGas Alliance
	Mr Timothy Langmead	Director, External Relations, Fortescue Metals Group Ltd	
7 Sept 2016	Mr Cameron Parrotte	Executive General Manager	Australian Energy Market Operator
	Ms Neetika Kapani	Acting Group Manager, Operations and Technology	
	Mr Joachim Tan	Senior Analyst, System Capacity WA	
7 Sept 2016	Closed hearing		Wood Mackenzie



## Appendix Three

### Glossary

the Act	<i>Gas Services Information Act 2012 (WA)</i>
AEMO	the Australian Energy Market Operator
BJV	Browse Joint Venturers
DMO	Domestic market obligation
GSEMC	Gas Supply and Emergency Management Committee
GSOO	Gas Statement of Opportunities
IMO	Independent Market Operator
KGP	Karratha Gas Plant
LNG	Liquefied natural gas
MMboe	Million barrels of oil equivalent
NIEIR	National Institute of Economic and Industry Research
NWS JV	North West Shelf Joint Ventures
the Regulations	<i>Gas Services Information Regulations 2012 (WA)</i>
the Rules	<i>Gas Services Information Rules (WA)</i>
Tcf	Trillion cubic feet
TJ	Terajoule or one trillion ( $10^{12}$ ) joules
WA	Western Australia or Western Australian, as appropriate
<i>WA domestic gas policy</i>	<i>WA Government policy on securing gas supplies</i>