

Mr John Pierce
Chairman
Australian Energy Market Commission
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Sydney South NSW 1235

Dear Mr Pierce 

The Council of Australian Governments Energy Council (Energy Council) has agreed to submit a rule change request to the Australian Energy Market Commission (AEMC) on enhancing gas market information provided to the Australian Energy Market Operator and published on its National Gas Bulletin Board (BB) website.

This rule change request has been developed by officials following Energy Council Ministers' endorsement of the Gas Transmission Pipeline Capacity Trading Decision Regulation Impact Statement on 13 December 2013 that recommended mandating the provision of enhanced capacity trading information for publishing on the BB.

Officials note that this rule change request is an element of the Energy Council's ongoing gas market development agenda and, as appropriate, further reforms may be pursued to extend the provision of information required to inform the way in which gas pipeline capacity is traded in Australia.

The rule change proposal and associated draft rules are at Attachment A for your consideration.

Sincerely



John Ryan
Chair
COAG Energy Council Senior Committee of Officials

 March 2015

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Attachment A

National Gas Rule Change Request and Proposal

**Gas Transmission Pipeline Capacity Trading: Enhanced
Information**

Amendments of the National Gas Rules – Part 18

March 2015

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1. GLOSSARY

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
BB	(National Gas) Bulletin Board
COAG	Council of Australian Governments
GSH	gas supply hub
GSA	gas supply agreement
GTA	gas transportation agreement
IMO	Independent Market Operator
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
RIS	regulation impact statement
GSOO	Gas Statement of Opportunities
SCER	Standing Council on Energy and Resources
STTM	short term trading market
TJ	terajoule
WAGBB	Western Australian Gas Bulletin Board

2. SUMMARY

Council of Australian Governments (COAG) Energy Council officials are proposing changes to the National Gas Rules (NGR) to mandate the provision of enhanced information aimed at reducing transaction costs to facilitate gas transmission pipeline capacity trade. The proposed changes would require market participants to provide the Australian Energy Market Operator (AEMO) with fundamental gas market information to be published on its National Gas Bulletin Board (BB) by the end of Q1 2016.¹ Appendix B provides a summary of the relevant current rules; the proposed rule changes; and the issues the proposed rule changes are designed to address.

In preparing this proposal, officials have also identified other rule changes relating to the provision of gas pipeline flow and facility data that will: improve the operational management of facilitated wholesale gas markets; better inform the development of AEMO's *Gas Statement of Opportunities* (GSOO); and enable a more accurate understanding of gas flows in Australia's eastern gas market and in turn allow a better representation of gas flows to be published on the BB.

Officials note that this rule change request is an element of the Energy Council's ongoing gas market development agenda and, as appropriate, further reforms may be pursued to extend the provision of information required to inform the way in which gas pipeline capacity is traded in Australia.

3. BACKGROUND

In accordance with s 13(1) of the National Gas Law (NGL), the primary function of a gas transmission pipeline is to convey gas to a market. In Australia, the overwhelming majority of natural gas is transported under long-term gas transportation agreements (GTAs) that underpin investment in gas transmission pipelines. This transportation capacity is sold by pipeline operators to retailers, industrial users and producers (shippers).

The initial trade in this transportation capacity is referred to as primary capacity trade. Subsequent trade in this capacity is referred to as secondary capacity trade, which is the focus of this rule change request. Secondary trading allows holders of contracted pipeline capacity to on-sell this capacity to another market participant on a temporary or permanent basis.

There are a range of secondary capacity trading mechanisms that shippers can utilise to sell unused capacity. In Australia, these transactions usually occur through bilateral and confidential agreements. Accordingly, existing secondary pipeline capacity trades lack transparency and the quantum of secondary capacity trading is unclear.

Improved secondary capacity trading can promote access to infrastructure and improve efficiency by signalling the short-run marginal value of pipeline services. This is important to promote:

- allocative efficiency at any given point in time, that is, to ensure capacity is made available to shippers that value it most highly;

¹ AEMO, *National Gas Bulletin Board*, <http://www.gasbb.com.au>

- dynamic efficiency, with the value of secondary trades signalling the value of investment (to resolve congestion) over the longer run and efficiently delaying the need for incremental pipeline investment; and
- competition in upstream and downstream supply by reducing barriers to entry.

Importantly, improved secondary capacity trading can significantly contribute to longer-term market development objectives including deepening market liquidity by providing improved access to transportation services for gas sold under shorter-term gas supply agreements (GSAs).

Given the potential to partially recover some of their sunk, fixed costs, shippers and pipeline operators should be incentivised to sell unused pipeline capacity. However, anecdotal evidence has suggested that information failure and/or competition failure and the lack of an effective market for trading unused pipeline capacity is impeding capacity trade causing inefficient gas market outcomes, slowing moves to improve market liquidity and transparency.

In response, on 14 December 2012, the COAG Energy Council, formerly known as the Standing Council on Energy and Resources (SCER), agreed to consider more broadly, in consultation with stakeholders, whether further policy options could facilitate increased trade in gas transmission pipeline capacity in the eastern gas market. On 31 May 2013, officials released the Gas Transmission Pipeline Capacity Trading Consultation Regulation Impact Statement (RIS) that sought stakeholders' views on current pipeline capacity trading activity and practices and whether any improvements could be made to facilitate increased trade in unused capacity.²

On 13 December 2013, COAG Energy Ministers endorsed the subsequent decision RIS and agreed to pursue enhancements to information provision and standardisation of contractual terms and conditions. These measures are aimed at reducing transaction costs to facilitate pipeline capacity trading. Specifically, it was agreed to pursue the following measures:

1. Mandate the provision of enhanced capacity trading information for publishing on the BB.
2. Improve the functionality and usability of the BB and develop an eastern market capacity listing service.
3. Develop and publish voluntary standard contractual terms and conditions for eastern gas market secondary capacity trade.

This rule change request is in regard to the first measure which will require gas market participants to provide the AEMO with additional information which will be published on the BB website by the end of Q1 2016.

On 11 June 2014, Energy Council officials released a consultation paper regarding the publication of enhanced pipeline capacity information on the BB (see Appendix D). The paper explored a range of issues and invited stakeholder feedback concerning what additional information could facilitate pipeline capacity trading, including improving stakeholders' understanding of gas transmission infrastructure. Based on stakeholder feedback

² COAG Energy Council, *Gas Transmission Pipeline Capacity Trading*, <http://www.scer.gov.au/workstreams/energy-market-reform/gas-market-development/gtpct/>

(see Appendix C), officials assessed the likely costs and benefits of each proposed information measure outlined in the consultation paper. This rule change proposal includes measures that officials have assessed as likely to deliver net benefits.

Information Currently Provided to AEMO

It is important to recognise that the NGL and NGR already mandate the provision of information relevant to capacity trading to AEMO. To support the current function of the BB, AEMO receives and, subject to the provisions of the NGR, publishes pipeline capacity and aggregated flow information. Specifically, the NGL (Section 223) mandates that prescribed persons must provide the BB operator (i.e. AEMO) with information in accordance with the NGR. Part 18, Division 5 (rules 163 to 175) of the NGR requires that BB pipeline, production and storage facility operators (collectively termed ‘facility operators’) must provide the following information to AEMO:

- nameplate³ capacity ratings for each facility;
- 7-day capacity outlook⁴ for each facility;
- actual production data for production and storage facilities for each completed gas day;
- actual pipeline gas delivery information for each demand and production zone;
- aggregated delivery nominations by zone and aggregated forecast deliveries by zone;
- 3-day linepack capacity adequacy (LCA) outlook flag for each pipeline; and
- contact details for each facility operator.⁵

In accordance with the NGL, facility operators cannot rely upon a duty of confidence⁶ to avoid compliance with their obligation to provide AEMO information (Section 224) and must not knowingly provide false or misleading information (Section 225). Further, a person who gives BB information to AEMO does not incur any civil monetary liability for an act or omission in giving that information unless the act or omission is done in bad faith or through negligence (Section 226). It is proposed that any new BB information that would be provided to AEMO would be provided on the same terms.

4. STATEMENT OF ISSUES

Australia’s eastern gas market is currently undergoing a period of profound change. The rapid growth of the eastern market coal seam gas (CSG) sector and the establishment of liquefied natural gas (LNG) export facilities are driving these changes. These developments pose a potential risk of tight gas supply conditions occurring over the period 2015 to 2018 due to slower than expected ramp up of new CSG supply. This reinforces the need for the provision and publishing of accurate and appropriate market information that will address information asymmetries and:

- facilitate capacity trade (both primary and secondary);

³ Nameplate capacity generally refers to the physical capacity of a pipeline on a medium to long-term basis. It is the intended technical full-load sustained capacity of the facility.

⁴ Capacity outlook figures relate to operational capacity that describes pipelines’ physical capacity on a short-term basis and are subject to influences like discretionary maintenance.

⁵ See Appendix A for a complete description of each of the above items.

⁶ ‘Duty of confidence’ means any duty or obligation arising under the common law or at equity pursuant to which a person is obliged not to disclose information.

- assist market participants with managing risks;
- facilitate policy makers' decision making during the next stage of market reform that will see the continued development of efficient domestic gas markets; and
- better enable AEMO to effectively manage the operation of facilitated wholesale gas markets and inform its GSOO planning and forecasting processes.

Although the existing NGR require market participants to provide AEMO with some gas market information that is then published on the BB, some stakeholders have suggested that the public provision of more detailed information would better support capacity trade, improve competition and help build market liquidity over time. These claims were tested during the RIS processes that also involved extensive stakeholder consultations and examining international best practices concerning what market information can best support capacity trading. COAG Energy Council Ministers have subsequently agreed to pursue enhancements to information provision to reduce transaction costs and facilitate pipeline capacity trading.

COAG Energy Council officials have analysed what enhanced data could better support capacity trade and likely deliver net benefits. Officials believe there is a strong case to mandate the provision of the following information to be published on the BB.

4.1 Uncontracted capacity

It is recognised that rule 111 requires scheme pipeline service providers (i.e. covered transmission pipeline and distribution system operators) to maintain registers of spare (uncontracted) capacity. Spare capacity registers must include information about spare capacity for the haulage of natural gas between defined receipt and delivery points and when the spare capacity is, or will become, available. However, it may be difficult for some market participants to easily determine whether uncontracted primary capacity is available on particular pipelines. In particular, rule 111:

- does not apply to all BB pipelines because not all BB pipelines are covered;
- does not require pipeline operators to provide AEMO with their capacity registers for publishing on the BB website and therefore this information cannot be accessed from a central location for ease of discovery; and
- does not specify a consistent forward outlook that could inform contractual negotiations.

In the European Union (EU) and the United States of America (US), pipeline operators are either required to publish aggregated contracted capacity or contracted capacity by user.

Additionally, while some pipeline operators provide on their website a list of shippers with contracted capacity on particular pipelines, websites do not provide an indication of which shippers hold the most capacity and therefore may be more likely to have unutilised capacity available for trade. Further, pipeline operators do not publish contracted shippers' contact details, inhibiting interested parties from easily contacting relevant shippers.

4.2 Secondary capacity trade

While market participants are free to trade in the secondary capacity market, they are not required to notify the relevant pipeline operator or AEMO that trades have occurred. This lack

of transparency prohibits market participants from adequately understanding the levels of secondary capacity trading. It is recognised that APA Group and Jemena currently publish some data concerning secondary capacity that is listed on their capacity trading platforms.⁷ However, this information is not available in a central location in a time-series format that could better inform new and current market participants and policy makers.

Other data enhancements

COAG Energy Council officials have also identified that data currently published on the BB concerning facilities and gas flows do not enable an adequate understanding of where gas flows within the eastern gas market. To address this issue, the following data could be improved.

4.3 Detailed facility data

Currently, registered BB facility operators are not required to provide AEMO with detailed facility data that would allow AEMO to construct and publish pipeline schematics that would enable an understanding of what facilities are connected to particular pipelines. This information could be utilised for market analysis and to inform decision making, including by existing market participants, potential new entrants, academics, financial institutions and government officials. Further, a lack of detailed facility data does not adequately inform the development of AEMO's GSOO publication.

In Western Australia, in accordance with the *Gas Services Information Rules 2013* (Western Australia), registered facility operators are required to provide the Western Australian Independent Market Operator (IMO) with detailed facility information⁸ that is published on its Western Australian Gas Bulletin Board (WAGBB) website.⁹ As a matter of principle, where appropriate, Australian gas market information should be consistent, clear and accessible across markets. Accordingly, information on the WAGBB and BB should be aligned where possible.

4.4 Gas flow data

BB pipeline operators are currently required to provide AEMO with aggregated nominated, forecast and actual pipeline flow data (via nominated, forecast and actual delivery data) at the zone level. However, the lack of published receipt data inhibits market participants' and policy makers' understanding of gas flows and market dynamics. Further, AEMO currently only has ad-hoc access to more granular receipt and delivery data and therefore experiences constraints in its ability to:

- effectively monitor BB reporting compliance in accordance with Rule 146¹⁰; and
- adequately understand supply-demand dynamics and inform AEMO's planning and forecasting processes.

⁷ APA Group's secondary capacity trading platform is accessible at <http://capacitytrading.apa.com.au> and Jemena's trading portal is accessible at <http://jemena.com.au/gas/capacitytrading.aspx>

⁸ *Gas Services Information Rules 2013* (Western Australia), rule 54

⁹ WABB Pipelines, <https://gbb.imowa.com.au/#pipelines>

¹⁰ Rule 146 requires that AEMO notify the AER of any breaches, or possible breaches, of Part 18 (Natural Gas Services Bulletin Board) of the NGR, including failure to register facilities and provide accurate information.

In the US, pipeline operators are required to operate electronic bulletin boards that include publishing historical flow data for all receipt and delivery points of its pipelines.

As evidenced in overseas markets, improved transparency that involves publishing the above categories of detailed information, not currently published on the BB, can help facilitate capacity trade, inform policy development and enable market operator to effectively manage facilitated markets.

5. PROPOSED SOLUTIONS

It is proposed the following solutions for the issues identified above be implemented. Officials note that the detailed requirements stipulating what information must be provided by BB facility operators would be prescribed in the BB Procedures.

5.1 Uncontracted capacity

On a monthly basis, pipeline operators be required to provide to AEMO a 3-year outlook period for uncontracted (available) primary capacity by BB pipeline. Pipeline operators also be required to provide, on a monthly basis, a list by pipeline of contracted shippers and their contact details, in the relative order of shippers' contracted capacities.

Given GTAs are predominantly medium to long-term contracts, and that capacity transfers via novation¹¹ are understood to occur infrequently, little change could be expected to be seen if reported on a more frequent basis. A 3-year outlook of uncontracted capacity would provide sufficient time for this information to inform parties undertaking contractual negotiations.

The publishing of uncontracted capacity by pipeline would enable market participants to easily determine whether uncontracted capacity was currently available or when it would become available and enable them to better plan and manage their GSAs. Further, publishing a list of contracted shippers by pipeline would provide market participants who are seeking secondary capacity with an indication of which shippers are most likely to hold unused capacity, due to their relative positions in the market. This information could reduce buyers' transaction costs (i.e. search costs).

5.2 Secondary capacity trade

On a week-after basis, pipeline operators be required to provide AEMO with the data from their secondary capacity trading platforms. The detail concerning what secondary capacity trading information should be provided to AEMO would be prescribed in the BB Procedures. COAG Energy Council officials would work with AEMO and pipeline operators to develop a procedural change that would capture the relevant information. AEMO would be required to make this information available on the BB in a standardised, time-series format that would better inform the decision making of new and current market participants and policy makers.

5.3 Detailed facility data

The provision of detailed facility data would allow AEMO to construct detailed schematics for publishing on the BB, allowing all interested stakeholders to understand what facilities are

¹¹ Novation is a permanent transfer of capacity whereby a shipper assigns all or part of their capacity to a third party and the assignee must enter into a new GTA with the pipeliner for the assigned capacity.

connected to which pipelines and where, informing decision-making and analysis of market dynamics.

Pipeline data

On an as soon as practicable basis, pipeliner operators be required to provide AEMO with detailed facility data including:

- the geographic location of their pipelines' receipt points and delivery points and the production facilities, storage facilities and transmission pipelines to which they connect;
- nameplate capacity in terajoules (TJ) for each pipeline by zone (production and demand); and
- nameplate capacity for each gate station connected to each pipeline; and all delivery points that that constitute gate stations.

Storage data

On an as soon as practicable basis, storage facility operators be required to provide AEMO with detailed facility data including:

- each BB pipeline to which the storage facility is connected; and
- the receipt points and delivery points at which the storage facility is connected.

Production data

On an as soon as practicable basis, production facility operators be required to provide AEMO with detailed facility data including:

- each BB pipeline to which the production facility is connected; and
- the receipt points and delivery points at which the production facility is connected.

It is acknowledged that as part of the redevelopment of the BB, AEMO has been working with pipeline operators on identifying receipt and delivery points. However, the provision of this information has been on an ad-hoc basis. To ensure the facility data remains up-to-date and the receipt and delivery flow data is provided in a timely manner, it is essential that the provision of this data is mandated in the NGR. While it is recognised that there is some duplication of data requested from facilities, particularly with regard to receipt and delivery points to which they connect, this data will be used for cross-checking purposes. As outlined in section 8.2.3, detailed facility data is unlikely to change on a regular basis and the upfront costs associated with the provision of this data is likely to be minimal.

5.4 Flow data by receipt and delivery points

On a day-after basis, pipeline operators to provide AEMO with aggregated receipt and delivery point flow data for each zone. Publishing enhanced aggregated data would enable a better understanding of gas flows and market dynamics.

On a monthly basis, pipeline operators to provide AEMO with disaggregated receipt and delivery point daily flow data for each zone, on a confidential basis. Publishing disaggregated data would likely reveal confidential commercially sensitive information (e.g. in cases where

a single user was connected to a particular delivery point flow data would show the daily gas consumption of that user).

It is noted that daily disaggregated receipt and delivery point data would be valuable to AEMO for the effective operation of the BB. The monthly provision of this data would enable AEMO to more effectively monitor BB reporting compliance including the registration of BB facilities and cross-checking facility production data. Confirming that reported production data is complete will enable AEMO to ensure that data published on the BB is accurate.

In addition to uses directly associated with the operation of the BB, the provision of disaggregated receipt and delivery point data is valuable for AEMO's forecasting and planning activities. It is recognised that on an informal annual basis, pipeline operators have voluntarily provided AEMO with some level of disaggregated receipt and delivery data to inform development of the GSOO and AEMO's National Gas Forecasting Report (NGFR). However, this data has not always been provided in a timely and uniform manner (i.e. not all operators have provided the data disaggregated at the daily level).

Further, the provision of disaggregated data could enhance AEMO's understanding and operation of the facilitated wholesale gas markets, particularly where AEMO does not operate the system (i.e. outside of the Victorian declared transmission system), and may assist in the management of short term trading market (STTM) contingency gas events.

However, it is acknowledged that if a new rule was proposed authorising AEMO to receive and use disaggregated daily receipt and delivery point data for purposes other than for the operation of the Bulletin Board (i.e. for purposes relating to its functions as an operator or administrator of a regulated gas market, including the STTM), and it was proposed the data was not to be published (i.e. made available for the purposes of the BB), then there may be an argument that the rule was inconsistent with section 223(4) of the National Gas Law (NGL) and invalid.¹²

Further, it is also acknowledged that the AEMC may not have power to make a new rule requiring the compulsory provision of disaggregated receipt and delivery point data for the purposes of AEMO performing its functions related to the GSOO and its declared system functions.¹³ This is because a rule for those purposes may be partially inconsistent with provisions in the NGL (ss 91F-91FE) providing for AEMO's information gathering powers by market information instrument.

For the reasons above, the proposed rule change limits the use of disaggregated data to AEMO's capacity as operator of the Natural Gas Services Bulletin Board to monitor compliance regarding registration and reporting requirements, to the extent they are not inconsistent with AEMO's functions in the NGL.

¹² Section 223(4) of the NGL requires that 'AEMO must make available for the operation of the Bulletin Board information about natural gas services that it acquires in its capacity as operator or administrator of a regulated gas market.'

¹³ Section 91BA of the NGL defines AEMO's declared system functions including: 'to monitor and review the capacity of the declared transmission system and the trends in demand for the injection of gas into, and the withdrawal of gas from, that system'; and 'to operate and administer the declared wholesale gas market'.

6. PROPOSED RULE CHANGES

The proposed rule changes are provided at Appendix A, and are explained at high level below.

The detailed requirements stipulating what information must be provided by BB facility operators to AEMO for publishing on the BB are outlined in AEMO's BB Procedures. Additions and amendments will need to be made to the Procedures to reflect the outcome of this rule change request.

6.1 Additional rules

A range of additional Rules are proposed to implement the solutions outlined in section 5.

6.1.1 Detailed facility data

As outlined in section 4, registered BB facility operators are not currently required to provide AEMO with detailed facility data. This proposed rule change would allow AEMO to construct and publish pipeline schematics that would enable an understanding of what facilities are connected to particular pipelines. Further, it would provide consistency with Western Australian market participants' reporting obligations to the IMO concerning facility data.

The proposed insertion of rules 164A, 167A and 170A require BB production facility operators, BB storage providers and pipeline operators respectively to provide AEMO with detailed facility data. The following proposed rules seek to require:

- BB production facility operators to provide, for each BB facility they operate: each BB pipeline to which the facility is connected; and the physical receipt points and delivery points at which the production facility is connected - rule 164A(1);
- BB production facility operators to update the detailed facility data provided under subsection 164A(1) should it become aware that this information is no longer accurate - rule 164(3);
- BB storage facility operators to provide detailed facility data for each BB facility they operate: each BB pipeline to which the facility is connected; and the physical receipt points and delivery points at which the storage facility is connected - rule 167A(1);
- BB storage facility operators to update the detailed facility data provided under subsection 167A(1) should they become aware that this information is no longer accurate - rule 167A(3);
- BB pipeline operators to provide detailed facility data for each BB facility they operate: the physical receipt points and delivery points and the production facilities, storage facilities and transmission pipelines to which they connect; and the physical delivery points that constitute gate stations - rule 170A(1); and
- BB pipeline operators to update the detailed facility data provided under subsection (1) should it become aware that this information is no longer accurate - rule 170A(3).

6.1.2 Uncontracted capacity

The proposed insertion of rule 171A seeks to require pipeline operators to provide AEMO a 3-year (36-month) outlook of available uncontracted primary transmission pipeline capacity

for each BB pipeline that it operates. It is acknowledged that rule 111 requires covered pipeline operators to maintain and publish a register of spare capacity. However, this information is not:

- available for all eastern gas transmission pipelines;
- found in a central location for ease of discovery; and
- does not provide a 3-year forward outlook.

Publishing an uncontracted primary capacity outlook for each BB pipeline in a central location on the BB would reduce the transaction costs for market participants wishing to trade in secondary capacity.

It is acknowledged that while the types of information relating to rule 111 and proposed rule 171A are related, the differentiation between the two are pronounced enough that this rule change request does not propose consolidation. In its consideration of rule 171A, the AEMC may wish to consider the appropriateness of consolidation.

The proposed rule 170B seeks to require pipeline operators to provide a list of contracted shippers and their contact details, in descending order of shippers' contracted capacities for each BB pipeline that it operates. The proposed rule 170B(2) seeks to require pipeline operators to provide the information outlined in subsection (1) to AEMO on a monthly basis. Publishing this information on the BB would help reduce the transaction costs associated with secondary capacity trading by providing market participants with an indication of which shippers have capacity on a BB pipeline and may hold unused capacity that they may be willing to trade.

6.1.3 Secondary capacity trade

The proposed insertion of rule 170C seeks to require BB pipeline operators to provide AEMO with data from their secondary capacity trading platforms, on a weekly basis. As indicated in section 5, the detail regarding what secondary capacity trading information should be provided to AEMO and in what format would need to be prescribed in the BB Procedures, following stakeholder consultation. The proposed rule is drafted in a manner so as to capture information from existing secondary trading platforms, such as APA Group's trade facilitator model, Jemena's capacity trade portal and other secondary trading platforms that may be developed in the future.

6.1.4 Bulletin Board compliance monitoring function

The proposed insertion of rule 174A(1) seeks to outline that for the purposes of section 219(f) of the NGL, AEMO has, in its capacity as operator of the Natural Gas Services Bulletin Board, the function of monitoring compliance by relevant persons with the Natural Gas Services Bulletin Board registration and reporting requirements. Rule 174A(2) further explains AEMO's monitoring and reviewing function referred to in subsection (1).

Rules 174A(3) and 174A(6) seek to require pipeline operators to provide AEMO with disaggregated daily receipt and delivery point flow data on a monthly basis. While this information has been provided by pipeline operators to AEMO on an informal annual basis to inform the GSOO and the NGFR, more regular and complete data would enable AEMO to better monitor BB reporting and therefore better ensure that production data that was published on the BB was complete and accurate.

Rule 174A(4) provides subrules (1) and (2) do not apply to AEMO to the extent they would involve the performance of a function that is also a declared system function. Rule 174A(5) provides subrule (3) does not apply to a pipeline operator to the extent it operates a pipeline, or part of a pipeline, for which AEMO may perform a declared system function.

Rules 174A(7), 174A(8) and 174A(9) outline that information collected in subsection (3): will be treated as confidential by AEMO; will not be published on the BB; and can only be used by AEMO in its capacity as operator of the Natural Gas Services Bulletin Board to monitor compliance regarding registration and reporting requirements. Rule 174A(10) clarifies relevant terminology in this rule.

6.2 Amendments to existing rules

A range of amendments to existing Rules are proposed to implement the solutions outlined in section 5.

6.2.1 Interpretation – Rule 141

Rule 141 defines the terms used and applied in Part 18 of the NGR. The addition of the Rules outlined in section 6.1 will require the insertion of definitions for a range of new terms, including: detailed facility information; distribution system; gate station; primary pipeline capacity; secondary pipeline capacity; secondary pipeline capacity trading platforms; secondary trade data; and uncontracted primary capacity.¹⁴ Rule 141(2)(d) provides clarity concerning the definition of nameplate rating when used in the context of a gate station. The proposed additions seek to ensure all terms referred to in Part 18 are clearly defined.

6.2.2 Pipeline nameplate rating information – Rule 170

Rule 170(1) requires pipeline operators to provide AEMO with the nameplate rating of each of its BB pipelines. The proposed addition of subsection (a) to Rule 170(1) seeks to stipulate the nameplate rating information for each BB pipeline be provided by production zone and/or delivery zone (as is applicable). In accordance with Rule 141(2)(a), which defines the nameplate rating of a BB pipeline as the maximum quantity of natural gas that can be transported through a BB pipeline on a gas day under normal operation conditions, pipeline operators under Rule 170 are only required to provide nameplate capacity by pipeline. However, nameplate by pipeline provides a simplistic representation of pipeline capacity as nameplate may vary across the length of a pipeline. This proposed amendment would see nameplate information published by production or demand zone which will allow market participants and observers to better understand the capability of the transmission system.

The proposed addition of subsection (b) seeks to obtain the nameplate capacity for each gate station connected to each BB pipeline. The publishing of nameplate capacities for each gate station, indicating the maximum daily quantity (MDQ) of gas the gate stations are capable of receiving, would provide a more accurate picture of the maximum quantity of gas that could theoretically flow to distribution systems.

¹⁴ It is noted that receipt point and delivery point are defined in Part 1, s3 of the NGR.

6.2.3 Actual pipeline gas receipt and delivery data – Rule 174

Rule 174(1) requires pipeline operators to provide AEMO with the actual deliveries of natural gas from each BB pipeline to each demand zone and production zone on the previous gas day. The proposed amendment seeks to also require pipeline operators to provide actual receipts of natural gas by a BB pipeline to each zone on the previous gas day. While this information is already collected by pipeline operators to manage the operation of their pipelines and for metering purposes, it is not provided to AEMO. Actual receipt information may not be provided by pipeline operators voluntarily given that there would be costs associated with sending this information to AEMO, notwithstanding that the costs incurred are likely to be minor. Publishing both receipt and delivery data would enable a better understanding gas flows and market dynamics.

7. HOW THE PROPOSED RULES CONTRIBUTE TO THE NATIONAL GAS OBJECTIVE

The regulatory framework governing Australia’s gas market is set out in the NGL and associated NGR. Section 23 of the NGL states the National Gas Objective (NGO) is:

‘...to promote efficient investment in, and efficient operation and use of, natural gas services for the long-term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.’

COAG Energy Council officials consider the current Rules’ information requirements do not provide sufficient information to adequately: facilitate capacity trade; enable AEMO to monitor and operate the market; and inform investors and policy makers. Officials consider the proposed changes would likely contribute to the achievement of the NGO for the following reasons:

Reduced transaction costs

Reporting of contracted shippers by pipeline would reduce market participants’ (particularly potential new market entrants’) search costs when seeking access to unutilised capacity. These savings may be passed on to consumers.

Publishing uncontracted capacity information and the contact details of contracted shippers by pipeline would reduce transaction costs (search costs) experienced by parties interested in buying unused capacity. This could reasonably be expected to help facilitate the trade of secondary capacity and potentially deliver additional gas to the market.

Additionally, publishing secondary capacity trade data in a central location on the BB and in a time-series format would reduce the discovery costs associated with accessing this information on APA Group’s and Jemena’s capacity trading platforms.

Improved decision making

Extending the range of information available to market participants, government policy makers and AEMO will enable them to make more informed decisions.

Detailed facility data would enable AEMO to construct detailed schematics for publishing on the BB, allowing interested stakeholders to understand what facilities are connected to which pipelines and where, informing decision-making and analysis of market dynamics.

Aggregated receipt data by zone (in addition to the delivery flow data that is already published) would improve market participants' and policy makers' understanding of gas flows and market dynamics.

Improved competition

The provision of more detailed and accurate market data in an easily accessible, central location can help facilitate the entry of new market participants and therefore potentially improve competitive market outcomes with the potential to lower delivered consumer gas prices.

Improved accuracy of Bulletin Board data

The proposed changes associated with providing daily flow data by receipt and delivery points would contribute to AEMO's ability to better monitor BB reporting compliance in accordance with rule 146 and therefore better ensure that data that was published on the BB was complete and accurate.

8. EXPECTED BENEFITS AND COSTS OF THE PROPOSED RULES

8.1 RIS cost-benefit analysis

During the RIS process, in response to stakeholder concerns and limitations of existing pipeline capacity information, the Commonwealth engaged NERA Economic Consulting (NERA) to undertake a detailed cost-benefit analysis (CBA) of the RIS policy options.

The principal challenge to quantifying benefits and costs for the policy options was finding objective information about the depth of the secondary market for transmission capacity, and the transaction costs associated with secondary trades. With little or no objective information publicly available, NERA drew on anecdotal information from its discussions with stakeholders as a basis for measuring potential costs and benefits. NERA estimated the upper and lower bounds for costs and benefits, in present value terms over 20-year periods and undertook sensitivity analysis. NERA also undertook a breakeven analysis.

RIS Option 2 included the provision of information similar to that proposed in this rule change proposal with the intention of reducing transaction costs and therefore facilitating increased capacity trade. NERA's analysis assumed the reduction in transaction costs would lead to an increase in gas transmission pipeline utilisation (i.e. it was assumed that there is an increase in secondary capacity trade once transactions costs are lowered).

8.1.1 Costs

As shown in Table 1, NERA estimated that RIS Option 2 would cost between \$4.7m and \$8.8m in present value terms over 20 years.

Table 1: Costs of Option 2 (Present Value – 2013 \$s)

Cost Category	Upper Bound (\$m)	Lower Bound (\$m)
Upgrade to the National Gas Bulletin Board	\$2.0	\$1.6
Development of a standardised contract	\$0.2	\$0.1
Pipeline and Shipper information costs	\$5.0	\$2.2
Changes to the National Gas Rules	\$0.5	\$0.2
Additional enforcement costs	\$1.2	\$0.6
Total present value	\$8.8	\$4.7

However, this estimate included an upgrade to the BB and the development of a standardised transportation contract that have both already largely been completed in a related but separate process to this rule change request process. Further, RIS Option 2 included real-time flow data reporting that would require upgrades to pipeline systems and procedures which APA Group alone has estimated would cost approximately \$1m for upgrades to its metering capabilities and \$1m p.a. for it to report real-time hourly flow data. Therefore, the costs estimates relating to this rule change proposal are considerably lower than the estimated costs of RIS Option 2.

As indicated in Table 1, Option 2 would impose costs on pipeline operators and shippers. However, the significance of these costs remains unclear, with some stakeholders indicating that the required information is already gathered for operational purposes and others arguing there are significant costs associated with providing additional information and ensuring its accuracy. Regardless, relatively to other business costs of pipeline operators (both in terms of very large capital investment costs of building a pipeline and normal operating costs), it is considered unlikely that the costs to pipeline operators of Option 2 materially raise their regulatory burden or present a barrier to entry.

8.1.2 Benefits

To quantify potential capacities that could be made available for secondary capacity trade as a result of the implementation of Option 2, NERA undertook an analysis of historic pipeline usage. This analysis recognised that on certain pipelines, there may be periods of peak demand where there is likely to be little or no capacity available for trade.

NERA considered that Option 2, which included an upgrade to the BB and the development of a standardised transportation contract, both which have already been completed, would likely only result in very small increases in capacity traded, if any, given that it does not involve changes to the current market framework. Therefore, NERA assumed that, at most, an additional 5% of available capacity would be traded and used, for those durations of available capacity. Table 2 shows that, in present value terms over 20 years, Option 2 could deliver up to \$11.4m in benefits. A sensitivity analysis was also undertaken assuming a 3% increase use of available capacity and this estimate yielded \$6.8m in present value benefits.

Table 2: Benefits of Option 2 (Present Value – 2013 \$s)

5% increase in use	3% increase in use	0% increase in use
\$11.4 m	\$6.8 m	\$0

To derive these estimates, it was assumed that for each additional GJ of gas capacity traded and utilised, there would be \$1/GJ of benefit. This assumption reflects the benefits of both

reducing current transactions costs and additional value realised from the use of traded gas. To arrive at this figure, consideration was also given to the potential implied value added per unit of gas use by downstream industry.

In the first instance, the quantified benefits of Option 2 would be distributed between the parties that trade capacity in secondary markets (i.e. shippers). Where shippers on-sell gas to end users, those end users would also benefit from implementation of Option 2. Regarding gas retail gas prices, because the likely volumes of additional gas that could be brought to market following the implementation of Option 2 measures are likely to be relatively small, NERA did not expect there would be an impact on retail gas prices.

NERA indicated that the net-benefit estimates for Option 2 were likely to be conservative because the provision of additional information would likely lead to a number of additional non-quantified benefits, such as to improve operational and investment decisions across the entire gas supply chain. NERA indicated that Option 2, through the provision of information, may enhance pipeline capacity trading and reduce barriers to entry for small shippers wishing to participate in the eastern gas market.

8.2 Rule change proposal expected costs and benefits

The provision and publishing of enhanced data proposed by this rule change will impose costs on BB facility operators and AEMO. The anticipated benefits of publishing this enhanced data need to be considered against these costs. Further, there needs to be a reasonable degree of confidence that the benefits of providing this information outweigh the cost of its provision. Another consideration is whether publishing new information will raise material confidentiality issues and, if so, what can be done to handle these issues.

Officials recognise that the costs associated with this rule change proposal are likely to be significantly lower than those estimated by NERA for RIS Option 2 during their cost-benefit analysis for a range of reasons:

- the BB upgrade has been completed;
- the development and publishing of standard terms and conditions has been completed; and
- real-time flow data (which has significant costs) is not included in this rule change proposal.

Similarly, officials recognise that the benefits associated with this rule change proposal are likely to be somewhat lower than those estimated by NERA for RIS Option 2 for the same reasons listed above. However, the likely quantum of this difference is unknown.

8.2.1 Uncontracted capacity

Publishing uncontracted capacity information and the contact details of contracted shippers by pipeline would have the benefit of reducing transaction costs (search costs) of parties interested in buying unused capacity. This could reasonably be expected to help facilitate the trade of secondary capacity and potentially deliver additional gas to the market. However, the anticipated value of this particular benefit has not been quantified.

APA estimate that for it to provide monthly uncontracted capacity data, it would incur up-front systems costs in the range \$60,000-\$100,000 and up-front procedure development costs of approximately \$20,000. COAG Energy Council officials have not attempted to verify

whether these estimates are an accurate reflection of the costs that APA Group would incur to provide the data. Jemena, EPIC SA, TGP and SEA Gas did not give any cost estimates for providing this data but their costs could reasonably be expected to be considerably lower than APA Group's because they each own/operate relatively few pipelines.

8.2.2 Secondary capacity trade

Publishing secondary capacity trade data would have the benefit of better informing the decision making of new and current market participants and policy makers.

APA Group has stated that its costs of reporting daily on completed capacity trades via its trade facilitator model would incur a systems cost of approximately \$50,000 and procedure development about \$10,000. However, if this information was provided on a less frequent basis (i.e. weekly as is proposed) these costs may be less than those estimated by APA Group. Jemena did not provide any cost estimates for it to provide AEMO with secondary capacity trade data.

8.2.3 Detailed facility data

Publishing detailed facility data would have the benefits of enabling AEMO to construct detailed schematics for publishing on the BB, allowing all interested stakeholders to understand what facilities are connected to which pipelines and where, informing decision-making and analysis of market dynamics.

Stakeholders did not provide an estimate of the costs associated with providing detailed facility data. However, as indicated above, Western Australian market participants already provide detailed facility data to the IMO. Given that numerous eastern Australian gas market participants also operate in the Western Australian gas market, many impacted stakeholders would already be familiar with the proposed requirements. BB production facilities, storage facilities and pipeline operators are likely to incur negligible costs associated with providing detailed facilities for the following reasons:

- This information is unlikely to change on a regular basis and the costs incurred are likely to be on a one-off basis;
- This information is already known by the facility operator and does not need to be newly collected; and
- Costs incurred will likely be limited to the costs associated with sending this information to AEMO.

8.2.4 Flow data by receipt and delivery points

Publishing aggregated receipt data by zone (in addition to the delivery flow data that is already published) would have the benefit of improving market participants' and policy makers' understanding of gas flows and market dynamics that would better inform their decision making. Further, providing AEMO with daily disaggregated receipt and delivery data on a monthly and confidential basis would have the benefit of enabling AEMO to more effectively monitor BB reporting compliance and therefore publish more accurate BB data.

Pipeline operators already provide AEMO with aggregated nominated, forecast and actual pipeline flow data (via nominated, forecast and actual delivery data) at the zone level and also voluntarily provide AEMO with disaggregated receipt and delivery data on an informal

annual basis. Therefore, the costs of providing aggregated receipt data could be expected to be relatively minor. During the consultation process, pipeline operators did not provide estimates of these costs.

Regarding the costs associated with the provision of daily disaggregated receipt and delivery data on a monthly basis, pipeline operators already collect this data for operational purposes but it is not clear what their costs would be to provide it to AEMO on a monthly basis.

APPENDIX A: DRAFT RULE CHANGE

Part 18 Natural Gas Services Bulletin Board

Division 1 Interpretation and application

141 Interpretation

- (1) In this Part:

actual BB costs in relation to an invoice period means the sum of:

- (a) AEMO's actual costs of operating and maintaining the Bulletin Board in accordance with this Part during the invoice period, including the amounts paid or payable by AEMO under Division 10 for aggregation and information services provided during that invoice period; and
- (b) AEMO's actual costs incurred during the invoice period in providing information under rule 186,

less the sum of any information retrieval fees paid to AEMO under rule 186 during the invoice period.

aggregated delivery nominations for a BB pipeline for a gas day means the sum of nominations for that gas day received by the pipeline operator from BB shippers on that pipeline.

aggregated forecast deliveries for a BB pipeline for a gas day means the sum of forecast deliveries in respect of that gas day received by the pipeline operator from BB shippers on that pipeline.

aggregation and information services means the services provided by a pipeline operator in aggregating and providing information to AEMO in compliance with rules 173 and 196.

aggregation and information services costs means the costs incurred by a pipeline operator in providing aggregation and information services.

authorised representative means a person duly authorised by a Minister of a participating jurisdiction to provide information to AEMO for publication on the emergency information page or to request AEMO to activate or deactivate the emergency information page under rule 181.

BB facility means a BB pipeline, a BB storage facility or a BB production facility.

BB participant means a person that is registered by AEMO under rule 148.

BB pipeline means a BB transmission pipeline:

- (a) that was specified as an initial BB pipeline in Schedule 2 to the Rules; or
- (b) that is commissioned after the commencement of these Rules; or

Note:

Section 12 of the *NGL* defines "commission".

(c) that is declared to be a BB pipeline under rule 153,
and that is not the subject of an exemption declaration under rule 149.

BB production facility means a production facility:

- (a) that was specified as an initial BB production facility in Schedule 2 to the Rules; or
- (b) that commences operation after the commencement of these Rules; or
- (c) that is declared to be a BB production facility under rule 153,
and that is not the subject of an exemption declaration under rule 151.

BB shipper means a user or non-scheme pipeline user who:

- (a) is a party to a contract with a service provider of a BB pipeline under which that service provider provides or intends to provide a pipeline service to that person by means of a BB pipeline; or
- (b) has a right under an access determination to be provided with a pipeline service by means of a BB pipeline.

BB storage facility means a gas storage facility:

- (a) that was specified as an initial BB storage facility in Schedule 2 to the Rules; or
- (b) that commences operation after the commencement of these Rules; or
- (c) that is declared to be a BB storage facility under rule 153,
and that is not the subject of an exemption declaration under rule 150.

BB storage provider means a storage provider who operates a BB storage facility.

BB terms of use means the terms and conditions on which BB users are granted access to the Bulletin Board and which are set out in the BB Procedures.

BB transmission pipeline means:

- (a) a pipeline that is a transmission pipeline; or
- (b) a pipeline that would be likely to be classified in accordance with the pipeline classification criterion as a transmission pipeline.

BB user means:

- (a) a BB participant; and
- (b) any other person

who accesses information on the Bulletin Board.

Bulletin Board means the Natural Gas Services Bulletin Board.

daily production capacity for a BB production facility or a BB storage facility means the quantity of natural gas that can be injected into one or more BB pipelines from the facility on a gas day for that facility.

daily production capacity outlook for a gas day means the BB storage provider's or production facility operator's (as the case may be) good faith estimate of the daily production capacity of the relevant facility on that gas day.

daily production data means:

- (a) for a production facility, the quantity of natural gas that is metered as having been, or estimated in good faith by the production facility operator to have been, injected into one or more BB pipelines from the facility on a gas day for that facility; and
- (b) for a gas storage facility, the quantity of natural gas that is metered as having been, or estimated in good faith by the BB storage provider to have been, injected into one or more BB pipelines from the facility less the total quantity of natural gas injected from one or more BB pipelines into the facility.

default interest rate has the meaning given to it in rule 3.

demand zone means a region defined in accordance with the BB Procedures.

detailed facility information means the information provided by:

- (a) a production facility operator, under subrule 164A(1);
- (b) a BB storage facility operator, under subrule 167A(1); and
- (c) a pipeline operator, under subrule 170A(1).

distribution system means a system of pipelines and associated equipment that supplies natural gas withdrawn from one or more BB pipelines to multiple end users, but excludes a transmission pipeline.

eligible BB participant means:

- (a) a user or non-scheme pipeline user in respect of a BB transmission pipeline;
- (b) a producer;
- (c) a large end user;
- (d) a gas-fired electricity generator;
- (e) a service provider of a pipeline connected to a BB facility;
- (f) a storage provider;
- (g) a user or non-scheme pipeline user which retails gas to end users by means of a distribution pipeline;
- (h) a member of NGERAC;
- (i) a Minister of a participating jurisdiction;
- (j) an authorised representative;
- (k) the AER;
- (l) the ERA; and
- (m) the AEMC.
- (n) **[Deleted]**

emergency information page means the emergency information section of the Bulletin Board maintained by AEMO under Division 7.

emergency status report means a statement on a gas supply emergency authorised by an authorised representative.

exemption cancellation date means the date specified in a notice under rule 152 as the date with effect from which the relevant exemption declaration is revoked.

exemption declaration means a declaration made by AEMO under rule 149, 150 or 151 as the case may be.

gas day means:

- (a) in respect of a BB pipeline, the 24 hour period for which daily nominations are provided, commencing at the time advised by the pipeline operator under rule 175; and
- (b) in respect of a BB production facility or a BB storage facility, the 24 hour period commencing at the time advised by the relevant operator under rule 175.

gas-fired electricity generator means a scheduled generator (as defined in the NER) that operates a generating system for which the primary energy input is natural gas.

gas storage facility means a facility that stores natural gas for injection into a BB pipeline.

gate station means a delivery point that serves a distribution system.

IAMA Expert Determination Rules means the rules for expert determinations published by the Institute of Arbitrators & Mediators, Australia as amended from time to time.

interest rate has the meaning given to it in rule 3.

invoice period means:

- (a) the period from the commencement date of these Rules to 30 June 2009 (both dates inclusive); and
- (b) each subsequent period commencing on 1 July in a year and ending on 30 June in the next year (both dates inclusive).

large end user means an end user that can reasonably demonstrate to AEMO that it consumes more than 500TJ of natural gas per annum.

LCA flag for a BB pipeline for a gas day means a green, amber or red flag indicating the actual or expected capability of the BB pipeline to meet the aggregated delivery nominations for the BB pipeline for that gas day based on the pipeline's linepack and capacity.

Note:

The meaning of a green, amber or red flag is specified in the BB Procedures.

nameplate rating has the meaning given to it in rule 141(2).

NER means the National Electricity Rules within the meaning of the National Electricity Law as set out in the schedule to the *National Electricity (South Australia) Act 1996* of South Australia.

NGERAC means the National Gas Emergency Response Advisory Committee established under the Memorandum of Understanding dated 26 October 2005 in relation to the National Gas Emergency Response Protocol.

nominations means natural gas quantities nominated by BB shippers to the pipeline operator to be delivered by the BB pipeline.

pipeline operator means a service provider or a gas market operator of a BB pipeline.

primary pipeline capacity means capacity on a BB pipeline that is sold by a pipeline operator to a BB shipper, giving the buyer the right to transport an agreed quantity of natural gas on that pipeline for an agreed period.

production facility means a facility at which natural gas is produced so that it is in a form suitable for injection into one or more BB pipelines.

production facility operator means a producer, user or non-scheme pipeline user who operates a BB production facility.

production zone means a region defined in accordance with the BB Procedures.

scheduled injection has the same meaning as in rule 200.

scheduled withdrawal has the same meaning as in rule 200.

secondary pipeline capacity means spare capacity on a BB pipeline that is sold by a BB shipper to another BB shipper, giving the buyer the right to transport an agreed quantity of natural gas on that pipeline for an agreed period.

secondary pipeline capacity trading platforms means computer system-supported electronic trading platforms that enable buyers and sellers to trade secondary pipeline capacity; but does not include a gas trading exchange that is operated by AEMO, or by another person that AEMO has appointed in accordance with rule 535.

secondary trade data for a BB pipeline means information related to the sale of secondary pipeline capacity, which is derived from a secondary pipeline capacity trading platform and collated in accordance with any requirements specified in the BB Procedures.

tax invoice has the meaning given to it in the *A New Tax System (Goods and Services Tax) Act 1999* of the Commonwealth.

TJ means terajoule.

total estimated BB costs in relation to an invoice period means the amount calculated by AEMO in accordance with rule 189.

uncontracted primary pipeline capacity means spare capacity on a BB pipeline that is available for sale by a pipeline operator as primary pipeline capacity.

- (2) In this Part the term **nameplate rating**:
- (a) when used in the context of a BB pipeline, means the maximum quantity of natural gas that can be transported through that BB pipeline on a gas day under normal operating conditions;
 - (b) when used in the context of a production facility, means the maximum daily production capacity of the production facility under normal operating conditions; ~~and~~
 - (c) when used in the context of a gas storage facility means either:

- (i) the maximum daily production capacity of the gas storage facility under normal operating conditions (the **production nameplate rating**);
 - (ii) the maximum quantity of natural gas that the storage facility can receive and process into storage on a gas day under normal operating conditions (the **refill nameplate rating**); or
 - (iii) the maximum quantity of natural gas that the storage facility can hold in storage the (**storage nameplate rating**); and
 - (d) when used in the context of a gate station means the maximum quantity of natural gas that can be transported through that gate station under normal operating conditions.
- (3) In this Part a reference to a quantity of natural gas is to an energy quantity (expressed in whole TJ), rather than a volumetric or other quantity.

Division 5 Obligations of the BB facility operators to provide information (Section 223 of the NGL)

163 Provision of information by BB facility operators

- (1) Subject to subrule (4), where this Part requires a production facility operator, a BB storage provider or a pipeline operator to provide information to AEMO, the information must be provided by that person by the time and in the manner specified in the BB Procedures.
- (2) A person need not provide information to AEMO in accordance with this Division until 10 business days after the commencement of this Part.
- (3) **[Deleted]**
- (4) A production facility operator, a BB storage provider or a pipeline operator need not comply with rules 165, 168, 171, 172 and 173 where the BB Procedures provide for both an exemption to the relevant obligation and a default value to be posted on the Bulletin Board.
- (5) To avoid doubt, the BB Procedures may require information about a gas day referred to in rules 165, 168, 171, 172 and 173 to be provided in advance of that gas day.

164 Obligation on production facility operators to provide nameplate rating information

- (1) A production facility operator must provide AEMO with the nameplate rating of each BB production facility that it operates.
- (2) The production facility operator must provide the information specified in subrule (1) to AEMO annually, by the date specified in the BB Procedures.

- (3) If a production facility operator becomes aware that the nameplate rating information it has provided under subrule (1) is no longer accurate due to changes in the production capacity of the BB production facility that are likely to impact the BB production facility for more than one year, the production facility operator must notify AEMO of the updated information as soon as practicable after it becomes aware that the information is no longer accurate.

164A Obligation on production facility operators to provide detailed facility information

- (1) A production facility operator must provide AEMO with detailed facility information that identifies for each BB production facility that it operates:
 - (a) each BB pipeline to which the facility is connected; and
 - (b) the receipt points and delivery points at which the facility is connected.
- (2) The production facility operator must provide the information specified in subrule (1) to AEMO in accordance with the BB Procedures.
- (3) If a production facility operator becomes aware that the detailed facility information it has provided under subrule (1) is no longer accurate, the production facility operator must notify AEMO of the updated information as soon as practicable after it becomes aware that the information is no longer accurate.

165 **Obligation on production facility operators to provide capacity outlooks**

In accordance with the BB Procedures and subject to rule 163(4), a production facility operator must provide to AEMO, for each BB production facility that it operates:

- (a) a short term capacity outlook on each gas day; and
- (b) a medium term capacity outlook on each date the production facility operator issues a medium term capacity outlook to BB shippers.

166 **Obligation on production facility operators to provide actual production data**

In accordance with the BB Procedures, a production facility operator must provide AEMO with the daily production data for each BB production facility that it operates.

Note:

The daily production data provided to AEMO is not intended to be of settlements quality

167 **Obligation on BB storage providers to provide nameplate rating information**

- (1) A BB storage provider must provide AEMO with the production nameplate rating, refill nameplate rating and storage nameplate rating of each BB storage facility that it operates.

- (2) The BB storage provider must provide the information specified in subrule (1) to AEMO annually, by the date specified in the BB Procedures.
- (3) If a BB storage provider becomes aware that the nameplate rating information it has provided under subrule (1) is no longer accurate due to changes in the storage capacity of the BB storage facility that are likely to impact the BB storage facility for more than one year, the BB storage provider must notify AEMO of the updated information as soon as practicable after it becomes aware that the information is no longer accurate.

167A Obligation on BB storage providers to provide detailed facility information

- (1) A BB storage provider must provide AEMO with detailed facility information that identifies for each BB storage facility that it operates:
 - (a) each BB pipeline to which the facility is connected; and
 - (b) the receipt points and delivery points at which the facility is connected.
- (2) The production facility operator must provide the information specified in subrule (1) to AEMO in accordance with the BB Procedures.
- (3) If a BB storage provider becomes aware that the detailed facility information it has provided under subrule (1) is no longer accurate, the BB storage provider must notify AEMO of the updated information as soon as practicable after it becomes aware that the information is no longer accurate.

168 **Obligation on BB storage providers to provide capacity outlooks**

In accordance with the BB Procedures and subject to rule 163(4), a BB storage provider must provide to AEMO, for each BB storage facility that it operates:

- (a) a short term capacity outlook on each gas day; and
- (b) a medium term capacity outlook on each date the BB storage provider issues a medium term capacity outlook to BB shippers.

169 **Obligation on BB storage providers to provide actual storage production data**

In accordance with the BB Procedures, a BB storage provider must provide AEMO with the daily production data for each BB storage facility that it operates.

Note:

The daily production data provided to AEMO is not intended to be of settlements quality

170 **Obligation on pipeline operators to provide nameplate rating information**

- (1) A pipeline operator must provide AEMO with:

- (a) the nameplate rating of each of its BB pipelines, including by production zone and delivery zone (as is applicable); and
 - (b) the nameplate rating for each gate station connected to each of its BB pipelines.
- (2) The pipeline operator must provide the information specified in subrule (1) to AEMO annually, by the date specified in the BB Procedures.
 - (3) If a pipeline operator becomes aware that the nameplate rating information it has provided under subrule (1) is no longer accurate due to changes in the capacity of the BB pipeline that are likely to impact the BB pipeline for more than one year, the pipeline operator must notify AEMO of the updated information as soon as practicable after it becomes aware that the information is no longer accurate.

170A Obligation on pipeline operators to provide detailed facility information

- (1) A pipeline operator must provide AEMO with detailed facility information that identifies for each BB pipeline that it operates:
 - (a) all receipt points and delivery points on that pipeline and any production facilities, storage facilities and transmission pipelines to which those receipt points and delivery points connect; and
 - (b) all delivery points that constitute gate stations on that pipeline.
- (2) The pipeline operator must provide the information specified in subrule (1) to AEMO in accordance with the BB Procedures.
- (3) If a pipeline operator becomes aware that the detailed facility information it has provided under subrule (1) is no longer accurate, the pipeline operator must notify AEMO of the updated information as soon as practicable after it becomes aware that the information is no longer accurate.

170B Obligation on pipeline operators to provide information about BB shippers

- (1) A pipeline operator must provide AEMO with a list of contracted BB shippers and their contact details, in descending order of each shippers' contracted capacities, for each BB pipeline that it operates.
- (2) The pipeline operator must provide the information specified in subrule (1) to AEMO on a monthly basis, in accordance with the BB Procedures.

170C Obligation on pipeline operators to provide secondary pipeline capacity trade data

- (1) If a pipeline operator owns, controls or operates a secondary pipeline capacity trading platform, the pipeline operator must provide AEMO with secondary trade data for each BB pipeline that it operates.

- (2) The pipeline operator must provide the information specified in subrule (1) to AEMO on a weekly basis, in accordance with the BB Procedures.

171 Obligation on pipeline operators to provide capacity outlooks

In accordance with the BB Procedures and subject to rule 163(4), a pipeline operator must provide to AEMO, for each BB pipeline that it operates:

- (a) a short term capacity outlook on each gas day; and
- (b) a medium term capacity outlook on each date the pipeline operator issues a medium term capacity outlook to BB shippers.

171A Obligation on pipeline operators to provide 36 month outlook of uncontracted primary capacity

- (1) In accordance with the BB Procedures, a pipeline operator must provide to AEMO, for each BB pipeline that it operates, a 36 month outlook of uncontracted primary pipeline capacity (a 36 month outlook).
- (2) A 36 month outlook under subrule (1), must specify the amount of uncontracted primary pipeline capacity on the BB pipeline for each month in the relevant 36 month period.
- (3) The pipeline operator must provide a 36 month outlook under subrule (1) to AEMO monthly, by the date specified in the BB Procedures.

172 Obligation on pipeline operators to provide linepack/capacity adequacy indicator

- (1) In accordance with the BB Procedures and subject to rule 163(4), a pipeline operator must provide to AEMO, on each gas day, the LCA flag for each of its BB pipelines for each of the next 3 gas days.
- (2) If at any time a pipeline operator determines that the current LCA flag for a BB pipeline provided under subrule (1) for a gas day no longer reflects the pipeline operator's view of the actual or expected capability of the BB pipeline to meet the aggregated delivery nominations for the BB pipeline on that gas day, then the pipeline operator must provide AEMO with an updated LCA flag for the BB pipeline for the relevant gas day as soon as practicable.

173 Obligation on pipeline operators to provide nominated and forecast delivery information

- (1) A pipeline operator (other than the pipeline operator of a declared transmission system) must, in accordance with the BB Procedures and in respect of each of its BB pipelines, provide AEMO with:
 - (a) in respect of each gas day and for each demand zone or production zone (if applicable), the aggregated delivery nominations for the BB pipeline for that gas day; and

- (b) in respect of each demand zone or production zone (if applicable), the aggregated forecast deliveries for the BB pipeline for subsequent gas days if it has been provided with forecast deliveries by BB shippers on the BB pipeline under contract or applicable market rules.
- (2) The pipeline operator of a declared transmission system must, in accordance with the BB Procedures, provide AEMO with the aggregated scheduled injections less the aggregated scheduled withdrawals in each production zone and for the New South Wales Victoria interconnect at Culcairn.
- (3) For the avoidance of doubt the aggregated information provided under this rule is only an aggregation of information provided by BB shippers to the relevant pipeline operator and does not represent the pipeline operator's forecast of demand on the relevant pipeline.
- (4) For the purposes of this rule, the BB Procedures may specify the default directions which are to be assigned to natural gas flows for each BB pipeline and the manner in which reverse flows of natural gas are to be treated.

174 Obligation on pipeline operators to provide actual pipeline gas receipt and delivery information

- (1) Each gas day a pipeline operator (other than the pipeline operator of a declared transmission system) must, in accordance with the BB Procedures and in respect of each of its BB pipelines, provide AEMO with the actual receipts and deliveries of natural gas from that BB pipeline to each demand zone and production zone (if applicable) on the previous gas day, such receipts and deliveries being as determined by the pipeline operator on the basis of operational metering data.
- (2) Each gas day the pipeline operator of a declared transmission system must, in accordance with the BB Procedures, provide AEMO with the aggregated actual injections of natural gas less the aggregated actual withdrawals of natural gas in each production zone and for the New South Wales Victoria interconnect at Culcairn, such injections and withdrawals being as determined by the pipeline operator on the basis of operational metering and (in the case of the interconnect) as metered at Culcairn.

Note:

The pipeline gas flows determined by the pipeline operator and provided to AEMO under this rule are not intended to be of settlements quality.

- (3) A pipeline operator may at any time (but is not required to) provide AEMO with updates to the information provided under subrule (1) or (2) (as the case may be).

Note:

It is anticipated that pipeline operators will update pipeline gas delivery information provided under this rule if there were substantive changes to that data.

174A AEMO's Bulletin Board compliance monitoring function

- (1) For the purposes of section 219(f) of the Law, AEMO has, in its capacity as operator of the Natural Gas Services Bulletin Board, the function of monitoring compliance by relevant persons with the Natural Gas Services Bulletin Board registration and reporting requirements, in accordance with this rule.
- (2) AEMO's function in subrule (1) includes monitoring and reviewing the capacity of a BB transmission pipeline and the trends in demand for the injection of gas into, and the withdrawal of gas from, that system.
- (3) A pipeline operator must, in respect of each of its BB pipelines, provide AEMO with reports describing the actual receipts and deliveries of natural gas for each receipt point and delivery point for each gas day.
- (4) Subrules (1) and (2) do not apply to AEMO to the extent they would involve the performance of a function that is also a declared system function.
- (5) Subrule (3) does not apply to a pipeline operator to the extent it operates a pipeline, or part of a pipeline, for which AEMO may perform a declared system function.
- (6) A pipeline operator to whom subrule (3) applies must provide the information specified in subrule (3) to AEMO on a monthly basis, in accordance with the BB Procedures.
- (7) Information provided to AEMO by a pipeline operator in accordance with subrule (3) is confidential information.
- (8) AEMO must not publish on the Bulletin Board information provided to it by a pipeline operator in accordance with subrule (3).
- (9) Subject to subrule (8), AEMO is authorised to use information provided to it by a pipeline operator in accordance with subrule (3) only for the purposes of its functions specified in subrules (1) and (2).
- (10) In this rule:
 - (a) **Natural Gas Services Bulletin Board registration and reporting requirements** means any provision of the Rules relating to:
 - (i) registration by AEMO under this Part; and
 - (ii) the obligation on BB facility operators to provide information under this Part;
 - (b) **relevant person** means a person that is registered by AEMO under this Part, or who is required to be registered by AEMO under this Part.

APPENDIX B: SUMMARY OF PROPOSED RULE CHANGES

Information category	Current rules	Proposed rules	Issues designed to address
Uncontracted capacity	<p>Currently, it may be difficult for some market participants to easily determine whether uncontracted primary capacity is available on particular pipelines.</p> <p>Rule 111(3) requires a scheme pipeline service provider to establish and maintain a register of spare capacity. The register of spare capacity must include the information stipulated at subsection (4). Rule 111 only applies to scheme pipeline service providers, that is, pipelines covered by regulation. However, the majority of gas transmission pipelines are unregulated and operators are not required to publish a register of spare capacity.</p>	<p>On a monthly basis, all BB transmission pipeline operators be required to provide to AEMO a 3-year outlook period for uncontracted (available) primary capacity by BB pipeline (rule 170B).</p> <p>BB transmission pipeline operators also be required to provide, on a monthly basis, a list by pipeline of contracted shippers and their contact details, in the relative order of shippers' contracted capacities.</p>	<p>Publishing uncontracted capacity outlook by pipeline would:</p> <ul style="list-style-type: none"> • enable market participants to easily determine whether uncontracted capacity was currently available or when it would become available; • provide an indication of spare capacity for all pipelines, not just covered pipelines; • provide a 3-year forward outlook better enabling market participants to plan and manage their GSAs. <p>Publishing a list of contracted shippers by pipeline would provide market participants who are seeking secondary capacity with an indication of which shippers are most likely to hold unused capacity. This information could reduce buyers' search costs.</p>
Secondary capacity trade	<p>There is no requirement in the NGR for market participants to publish secondary capacity trade data.</p> <p>It is recognised that rule 176 stipulates that participants may indicate spare capacity available for purchase or capacity requirements via the Gas Supply Hub.</p>	<p>On a week-after basis, pipeline operators be required to provide AEMO with the data from their secondary capacity trading platforms (rule 170C). The information that operators would need to provide to AEMO would be prescribed in the BB Procedures. AEMO would be required to publish this information on the BB in a standardised, time-series format that would better inform the decision making of new and current market participants and policy makers.</p>	<p>While market participants are free to trade secondary capacity, they are not required to notify the relevant pipeline operator or AEMO that trades have occurred. This lack of transparency prohibits market participants from adequately understanding the levels of secondary capacity trading activity. While APA Group and Jemena publish some data concerning secondary capacity that is listed on their capacity trading platforms, this information is not available in a central location in a time-series format.</p>

Information category	Current rules	Proposed rules	Issues designed to address
Detailed facility data	<p>BB facilities are required to provide nameplate capacity ratings for each facility they operate as well as a range of additional data (see section 3).</p> <p>Rule 170(1) requires pipeline operators to provide AEMO with the nameplate rating of each of its BB pipelines.</p> <p>However, the Rules do not require BB facility operators to provide detailed facility data that would enable the construction of pipeline schematics and facilitate increased understanding of infrastructure connections.</p>	<p>BB facilities to provide, as applicable, the following data:</p> <ul style="list-style-type: none"> • Pipeline data: location of pipelines receipt and delivery points, the production, storage and transmission pipelines to which they connect (rule 170A); nameplate in TJ for each pipeline by zone (170(1)(a)); and nameplate capacity for each gate station connected to each pipeline and the delivery points that constitute gate stations (170(1)(b)). • Storage data (rule 167A): each BB pipeline to which it connects and the receipt points and delivery points at which the storage facility is connected. • Production data (164A): each BB pipeline to which it connects and the receipt points and delivery points at which the production facility is connected. 	<p>AEMO has been working with pipeline operators, as part of the redevelopment of the BB, on identifying receipt and delivery points. However, the provision of this information has been on an ad-hoc basis. To ensure the facility data remains up-to-date, it is essential that the provision of this data is mandated in the NGR.</p> <p>This proposed rule change would allow AEMO to construct and publish pipeline schematics that would enable an understanding of what facilities are connected to pipelines. It would provide consistency with Western Australian market participants' facility data reporting obligations to the IMO.</p> <p>The proposed addition of subsection (a) to rule 170(1) seeks to stipulate the nameplate rating information for each BB pipeline be provided by zone. The existing nameplate rating by pipeline provides a simplistic representation of pipeline capacity as nameplate may vary across the length of a pipeline.</p> <p>The proposed addition of rule 170(1)(b) seeks to obtain the nameplate capacity for each gate station connected to each BB pipeline. Publishing nameplate capacities of gate stations would provide an indication of the maximum daily quantities of gas that could theoretically flow to distribution systems.</p>

Information category	Current rules	Proposed rules	Issues designed to address
Flow data by receipt and delivery points	<p>BB pipeline operators are currently required under rules 173 and 174 to provide AEMO with aggregated nominated, forecast and actual pipeline flow data (via nominated, forecast and actual delivery data) at the zone level. BB pipeline operators are not required to report receipt flow data.</p> <p>Pipeline operators are not required under the rules to report disaggregated receipt or delivery data.</p>	<p>On a day-after basis, pipeline operators to provide AEMO with aggregated receipt and delivery point flow data for each zone (rule 174(1)).</p> <p>On a monthly basis, pipeline operators to provide AEMO with disaggregated receipt and delivery point flow data for each zone, on a confidential basis (rule 174A(5)).</p>	<p>The lack of published receipt data inhibits market participants' and policy makers' understanding of gas flows and market dynamics. Improved transparency from publishing more detailed flow data can: help facilitate capacity trade; inform policy development.</p> <p>The lack of regularly provided disaggregated and standardised receipt and delivery point flow data inhibits AEMO's ability to effectively monitor BB reporting compliance.</p>

APPENDIX C: CONSULTATION PROCESS AND STAKEHOLDER VIEWS

Officials undertook stakeholder consultation to inform the implementation of the decision by the COAG Energy Council, formerly the Standing Council on Energy and Resources (SCER), to mandate the provision of enhanced gas transmission pipeline capacity trading information. On 11 June 2014, a consultation paper regarding enhanced pipeline capacity information was publicly released on the COAG Energy Council website for a period of over five weeks, with the formal submission process closing on Friday 18 July 2014. Stakeholders were invited to provide written submissions and answer specific questions listed throughout the consultation paper (see Appendix D).

The purpose of the consultation paper was to:

- examine what additional information would be appropriate to be provided to AEMO; and
- seek stakeholders' views concerning these proposed new information requirements.

Thirteen public non-confidential submissions were received from:

- Australian Energy Regulator (AER)
- AGL
- Alinta,
- APA Group
- Australian Pipeline Industry Association (APIA)
- EnergyAustralia
- ERM Power
- Energy Supply Association of Australia (esaa)
- Jemena
- Lumo Energy
- Origin Energy
- QGC Pty Ltd
- Santos Ltd

One confidential submission was also received.

The consultation paper canvassed a range of issues and stakeholder submissions highlight a wide spectrum of opinions. Some submissions indicated broad general support to implement all potential new information provisions examined and others oppose any. Many of the submissions and subsequent industry consultations stressed that the provision of any new information would need to:

- be relevant to facilitating capacity trading and/or gas market development objectives, such as risk management;
- demonstrate likely benefits exceeding likely costs; and
- not jeopardise established pipeline capacity property rights of incumbents.

Stakeholder views on the specific types of information included in this rule change request are outlined below.

B.1 Uncontracted capacity

APA Group, Jemena and APIA support publishing primary available capacity information on the BB, supplemented with shippers' contact information on each pipeline. However, on confidentiality grounds it may be appropriate to exempt publishing the details of a shipper if it is the sole shipper on a particular pipeline as the flow data would reveal the shipper's position in the market.

Although there was limited support by some stakeholders to publish non-firm capacity, APA Group noted that publishing available non-firm capacity would be problematic because data would be incomplete as it would not account for authorised overruns available under shippers' contracts. An alternative proposal could require AEMO to publish daily available capacity figures based on differences between daily facility capacities (operational capacities) and nominations. This approach would not provide an indication of the daily volumes of non-firm capacity in the market, however, it would provide a rough indication of unutilised capacity.

The consultation paper proposed publishing data concerning which market sectors, or which participants in particular sectors, hold capacity. There was universal opposition in the submissions to publishing information concerning individual shipper's contracted positions on the grounds that revealing this type of information would raise confidentiality issues.

In particular, APIA noted that publishing this type of confidential information has the potential to reveal sensitive information relating to gas supply negotiations, particularly in circumstances when the timeframes of GTAs and GSAs differ. In such cases, revealing this information has the potential to disadvantage the contracted shipper who is seeking to renegotiate a GSA because the supplier would know the shipper's position during negotiations.

Stakeholders also generally opposed publishing contracted capacity aggregated at the market segment level on the grounds that it could be possible to extrapolate individual shippers' positions, particularly if there are few shippers on particular pipelines.

B.2 Secondary capacity trade

In its submission, APA Group stated that its costs of reporting daily on completed capacity trades via its trade facilitator model would incur a systems cost of approximately \$50,000 and procedure development about \$10,000. However, if this information was provided on a less frequent basis (i.e. weekly, as is proposed) these costs may be less than those stated by APA Group.

B.3 Detailed facility data

Stakeholder views were diverse on this issue with Alinta, ERM Power, APA Group and Jemena broadly supportive of the provision and publishing detailed facility data and Origin, Lumo Energy and Santos opposed.

Alinta believes that detailed facility data and flow data by delivery and receipt points would go a significant way to improving market transparency and developing the conditions for

increased trade. APA Group and Jemena support the provision of the physical location of receipt and delivery points and indicated that this information would be relatively low cost to provide.

Origin believes that detailed facility data has limited ability to facilitate pipeline capacity trading. Lumo Energy contends that the benefits would outweigh the costs. Similarly, Santos considers that the costs are likely to be excessive and does not believe facility data helps the market achieve the liquidity needed. Further, Santos contends that the cost of compliance has risen with the WAGBB without a corresponding rise in market trades.

B.4 Flow data by receipt and delivery points

As noted above, AEMO is already working with pipeline operators on identifying receipt and delivery points. Further, on an informal annual basis, pipeline operators have provided AEMO with disaggregated receipt and delivery data to inform the GSOO.

APA Group's submission indicates that it supports providing receipt and delivery information, aggregated at the zone level. Jemena did not support providing more granular flow data and noted that there are some delivery points where it does not own metering equipment and therefore relies on third parties to provide metering data.

B.5 Other issues raised in consultation paper

The consultation paper also sought stakeholders' views on other possible BB information measures including: large user data; more granular flow data (e.g. hourly flow data); enhanced linepack reporting; and the appropriateness of cost recovery for data provision for the BB. When deciding what measures to include in this rule change proposal, officials assessed stakeholder feedback and the likely costs and benefits of each measure and included measures that officials assessed as likely to deliver net benefits. Regarding cost recovery, stakeholders' views covered a spectrum from the current provisions being appropriate and adequate to some stakeholders believing it appropriate to provide for cost recovery for any BB information provision.

Stakeholder feedback on the questions posed in the consultation paper assisted officials in developing this rule change request. Further, officials consulted bilaterally with stakeholders to discuss the consultation paper and their concerns.

B.6 Previous consultation on the RIS

Officials first undertook informal industry consultations during 2012. During this period, representatives from producers, retailers, industrial consumers, pipeline owners and AEMO were consulted to seek their views on whether there was a problem with the way in which unused pipeline capacity was traded. Officials also leveraged off AEMO's Wallumbilla Gas Supply Hub (GSH) Industry Reference Group meetings that began in 2012.

Officials then drafted an internal discussion paper that was considered by SCER at its 14 December 2012 meeting. On 31 May 2013, a consultation RIS was publicly released on the SCER website for a period of six weeks and the formal submission process closed on Monday 15 July 2013. Interested stakeholders were invited to provide written submissions and answer specific questions listed throughout the consultation RIS.

Thirteen stakeholders made submissions to the consultation RIS, of which, two were confidential submissions. Non-confidential submissions were published on SCER's website on 5 August 2013.¹⁵ Stakeholders that provided non-confidential, public submissions included:

- AGL
- Alinta Energy
- APA Group
- Australian Energy Market Operator (AEMO)
- Australian Pipeline Industry Association (APIA)
- EnergyAustralia
- Energy Supply Association of Australia (ESAA)
- Epic Energy South Australia
- GDF Suez
- Jemena
- Origin Energy

In addition to reviewing the submissions, officials consulted with key industry stakeholders including representatives from the AER, AEMC, AEMO and others who did not make submissions to the consultation RIS. Further, during the development of the cost-benefit analysis, NERA Economic Consulting undertook consultations with gas producers, pipeline operators, retailers, users, regulator/operators and industry groups. NERA used the stakeholder submissions as a basis for consultations which were targeted at discussing the likely costs and benefits associated with the policy options identified in the consultation RIS.

¹⁵ COAG Energy Council, *Gas Transmission Pipeline Capacity Trading*,
<http://www.scer.gov.au/workstreams/energy-market-reform/gas-market-development/gtpct>

APPENDIX D: CONSULTATION PAPER

COAG Energy Council Officials

Consultation Paper

Enhanced Pipeline Capacity Information

Note: This paper is a working document and does not represent the views of the Council of Australian Governments (COAG) Energy Council.

June 2014

Disclaimer

This paper is for consultation only and should not be read as a settled or final view of officials, participating jurisdictions or the COAG Energy Council regarding gas transmission pipeline capacity trading. This paper has been prepared solely to assist with the determination of an appropriate course of action. Stakeholder consultations are being used to inform the policy decision on the preferred approach. The content of submissions will be considered, and where appropriate, incorporated into a national gas rule change request.

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1. PURPOSE OF CONSULTATION

Officials are undertaking stakeholder consultation to inform the implementation of the decision by the COAG Energy Council, formerly the Standing Council on Energy and Resources (SCER), to mandate the provision of enhanced gas transmission pipeline capacity trading information. This initiative will require gas market participants to provide the Australian Energy Market Operator (AEMO) with additional information that will be published on the National Gas Market Bulletin Board (NGMBB) website.¹⁶

The purpose of this consultation paper is to:

- examine what additional information would be appropriate to be provided to AEMO; and
- seek stakeholders' views concerning these proposed new information requirements.

Stakeholder feedback on the questions posed in this paper will assist officials in developing a rule change request that will be considered by the Australian Energy Market Commission (AEMC).

2. STAKEHOLDER SUBMISSIONS

Officials encourage stakeholders to make submissions on the issues raised in this Consultation Paper by 5 p.m. (AEST) 18 July 2014. Electronic submissions are preferred and can be sent via e-mail addressed to the COAG Energy Council Secretariat at energycouncil@industry.gov.au.

Stakeholders who wish to provide hard copies by post may do so by addressing their submissions to:

Manager, COAG Energy Council Secretariat
Department of Industry
GPO Box 1564
Canberra ACT 2601

In making submissions, stakeholders should focus on providing evidence of the potential impacts of the options under consideration and provide details about the advantages and disadvantages, costs and benefits and risks associated with each option presented.

All information (including name and address details) contained in submissions will be made available to the public on the COAG Energy Council's website unless stakeholders indicate that all or part of a submission is confidential. Submissions may be subject to *Freedom of Information Act 1982* (Cth) provisions.

Submissions and stakeholder feedback will be considered when drafting a rule change request that will be submitted to the AEMC for the formal rule change process.

¹⁶ <http://www.gasbb.com.au>

3. TIMEFRAMES

Indicative timeframes for the project milestones are outlined below:

- Consult bi-laterally with stakeholders prior to receiving submissions – June 2014
- Consult with stakeholders concerning the draft rule change – August 2014¹⁷
- Submit rule change request to the AEMC – October 2014
- AEMC completes rule change process – June 2015 (earliest)

4. BACKGROUND

On 14 December 2012, the COAG Energy Council, formerly SCER, agreed to consider more broadly, in consultation with stakeholders, whether further policy options could facilitate increased trade in gas transmission pipeline capacity in the eastern gas market. Upon commencement of this work, pipeline capacity utilisation data indicated that there were periods during the year when some eastern Australian pipelines had significant volumes of contracted but unutilised capacity.

On 31 May 2013, officials released a consultation Regulation Impact Statement (RIS) that sought stakeholders' views on current pipeline capacity trading activity and practices and whether any improvements could be made to facilitate increased trade in unused capacity.¹⁸

On 13 December 2013, COAG Energy Council, formerly SCER, endorsed a decision RIS that noted although there is already some limited secondary trade in contracted, but unused capacity, there was limited publicly-available information that could reasonably be expected to underpin a transparent and efficient capacity trading market.¹⁹ This lack of publicly accessible and fundamental market information may make it very difficult for current and potential market participants to engage in secondary capacity trade. Information asymmetry may be acting as a barrier to entry, limiting competition in the sector and the utilisation of transmission pipeline infrastructure.

Further, the RIS noted the current capacity trading market situation appears to be one in which the larger incumbents have adequate information and established business networks that would enable them to effectively and efficiently trade capacity. However, new or smaller participants, who may seek new or additional capacity, would benefit from better information to enable them to effectively participate in the market. Many stakeholders also noted that while the AEMO's NGMBB is an appropriate place to publish pipeline capacity information, its current functionality is limited and existing data could be better presented.

To address these problems, the COAG Energy Council, formerly SCER, agreed to pursue enhancements to information provision and standardisation of contractual terms and conditions for secondary capacity trade. Agreed measures are aimed at reducing transaction costs to facilitate pipeline capacity trading. Specifically, it was agreed to pursue the following RIS measures:

¹⁷ NGMBB procedural changes will also need to occur.

¹⁸ Standing Council on Energy and Resources, *Gas Transmission Pipeline Capacity Trading*, <http://www.scer.gov.au/workstreams/energy-market-reform/gas-market-development/gtpct/>

¹⁹ Standing Council on Energy and Resources, *Meeting Communiqué 13 December 2013*, <http://www.scer.gov.au/files/2013/12/SCER-Communique-DEC-2013-v.2.pdf>

1. Mandate the provision of enhanced capacity trading information for publishing on NGMBB. This involves state and territory governments working with:
 - AEMO and stakeholders to determine what additional information can practically be provided to AEMO; and
 - the AEMC to implement the required National Gas Rules changes that would be required to mandate improved information provision.
2. Improve the functionality and usability of the NGMBB. This involves AEMO:
 - working with stakeholders, including state and territory governments, to determine how to best present new and existing information; and
 - developing and implementing an eastern market capacity listing service.
3. Develop and publish voluntary standard contractual terms and conditions for eastern gas market secondary capacity trade. This would involve AEMO:
 - leveraging off work already undertaken for the Wallumbilla gas supply hub, working with stakeholders to develop standardised contractual terms and conditions that could be applicable across all eastern market pipelines.

In addition, it was agreed that two years after above initiatives have been fully implemented, a review will be undertaken into their usefulness and effectiveness. The review will also assess the level of supply and demand for pipeline capacity at the gas supply hub and whether or not adequate capacity had been offered to the market. At this time, it will be considered whether further action is required to improve capacity trade.

The above measures will be implemented via a staged approach as detailed below.

Stage	Measure	Completion Date
1	<ul style="list-style-type: none"> • Improve the NGMBB's interface to better present and improve the discoverability of existing NGMBB data. 	Q4 2014
2	<ul style="list-style-type: none"> • Develop standard contractual terms and conditions for secondary capacity trade across all eastern gas market pipelines and publish on the NGMBB. • Implement eastern gas market capacity listing service for the NGMBB. 	Q1 2015
3a	<ul style="list-style-type: none"> • Submit rule change request to the AEMC to support the provision and publishing of new data on the NGMBB. 	Q4 2014 (October 2014 earliest)
3b	<ul style="list-style-type: none"> • Complete rule change process. 	Q2 2015 (June 2015 earliest)

This approach will allow industry to benefit as soon as possible from a redeveloped NGMBB and will also allow adequate time for stakeholder consultation and a rule change process that will be required to implement the enhanced information initiative, enabling the collection and presentation of new data on the NGMBB.

5. CAPACITY TRADING INFORMATION

Participants in Australia’s eastern gas market are required to provide AEMO with certain information in accordance with the National Gas Law (NGL), National Gas Rules (NGR) and NGMBB Procedures.

Information Provided to AEMO

The national gas laws and rules already mandate the provision of information relevant to capacity trading to AEMO. To support the current function of the NGMBB, AEMO receives and, subject to the provisions of the NGR, publishes pipeline capacity and aggregated flow information. Specifically, the NGL (Section 223) mandates that prescribed persons must provide the NGMBB operator (i.e. AEMO) with information in accordance with the NGR. Part 18, Division 5 (Rules 163 to 175) of the NGR requires that NGMBB pipeline, production and storage facility operators (collectively termed ‘facility operators’) must provide the following information to AEMO:

- nameplate²⁰ capacity ratings for each facility;
- 3-day capacity outlook²¹ for each facility;
- actual production data for production and storage facilities for each completed gas day;
- actual pipeline gas delivery information for each demand and production zone;
- aggregated delivery nominations by zone and aggregated forecast deliveries by zone;
- 3-day linepack capacity adequacy (LCA) outlook flag for each pipeline; and
- contact details for each facility operator.²²

To support the calculation of fees AEMO also receives disaggregated historical delivery information by shipper. Specifically, Rule 196(1) of the NGR requires that pipeline operators provide AEMO with, for each NGMBB shipper on each NGMBB pipeline, the total gas delivery allocated to that shipper from all NGMBB pipelines that it operated during the previous invoice period. Under Rule 196(3) of NGR AEMO is prohibited from publishing this information on individual shippers’ gas usage.

In accordance with the National Gas Law, facility operators cannot rely upon a duty of confidence to avoid compliance with their obligation to provide AEMO information (Section 224) and must not knowingly provide false or misleading information (Section 225).

Further, a person who gives NGMBB information to AEMO does not incur any civil monetary liability for an act or omission in giving that information unless the act or omission is done in bad faith or through negligence (Section 226). It is proposed that any new NGMBB information that would be provided to AEMO would be provided on the same terms.

²⁰ Nameplate capacity generally refers to the physical capacity of a pipeline on a medium to long-term basis. It is the intended technical full-load sustained capacity of the facility.

²¹ Capacity outlook figures relate to operational capacity that describes pipelines’ physical capacity on a short-term basis and are subject to influences like discretionary maintenance.

²² See Appendix A for a complete description of each of the above items.

Information Published on the NGMBB

In its role as the NGMBB operator, AEMO must publish on the NGMBB a list of the relevant zone(s) and the default flow direction (where applicable) for each NGMBB pipeline. AEMO publishes the following on the NGMBB's interactive eastern market map: flow directions, nominated pipeline flows; and facilities' standing capacities. In addition to this higher-level information, the NGMBB presents the following information in tabular form and also provides it in time-series format via downloadable files:²³

- aggregated forecast pipeline flows for up to the next seven gas days by zone;
- aggregated actual flow time series data;
- 3-day capacity outlook for each facility;
- 3-day LCA flags;
- facilities and zones lists;
- standing capacities²⁴ for all facilities;
- standing peak day demand forecasts; and
- registered participants and contacts.

With the exception of Rule 196 as outlined above, AEMO publishes all information that it collects under Part 18 of the NGR.

Stakeholder Feedback

During the RIS consultation process, some industry stakeholders indicated that current NGMBB pipeline capacity information was not sufficient to support the effective and efficient trading of secondary pipeline capacity.²⁵ The following types of information were identified in the RIS as potentially useful to facilitate increased capacity trade:

- day-after and a 365-day outlook of contracted firm capacity by shipper, including secondary capacity trades;
- day-after and a 365-day outlook of contracted 'non-firm' capacity by shipper, including secondary capacity trades;
- day-after hourly gas deliveries categorised into three shipper types: retail, industrial, and electricity generation customers; and
- a 365-day outlook of operational pipeline capacity, including the implications of any operational flow orders, maintenance and ancillary services, updated at least once monthly.

²³ Detailed list and descriptions of data items are at Appendix B.

²⁴ Standing capacity is synonymous with nameplate capacity.

²⁵ Many stakeholders also stated that information currently collected by AEMO was poorly presented on the NGMBB.

Stakeholders have also identified that the following information would be useful to facilitate capacity trade:

- real-time/intra-day operational capacity data;
- 12-month adequacy data, provided on a weekly basis;
- beginning and end of day line-pack data; and
- intra-day flow and line-pack data.

The types of information mentioned above represent more detailed data (e.g. within-day, longer-term and disaggregated) than is currently provided on the NGMBB. In other Australian and overseas gas markets, market participants are required to provide some similar pipeline data to that listed above.

Information published on the Western Australian Gas Bulletin Board

The Western Australian Gas Bulletin Board (WAGBB) commenced operation on 1 August 2013 and is operated by the Western Australian Independent Market Operator (IMO). The WAGBB was established under the *Gas Service Information Act 2012* (Western Australia) and is intended to improve the transparency of information, security and facilitate competition in the WA gas market.

The WAGBB was in part built upon the experience of the NGMBB, so it not surprising that industry stakeholders have noted that the WAGBB shows improvements compared to the NMGBB, both in the information captured and the presentation of that information.

The WAGBB publishes detailed, forward-looking and disaggregated information in addition to that published on the NGMBB, including:

- large user information including nameplate and consumption data;
- detailed facility data, including pipeline receipt points and delivery points;
- nominated and forecast flow data by delivery and receipt points;
- medium-term capacity outlook; and
- 7-day capacity outlook.²⁶

Australian Industry-led Capacity Trading Initiatives

APA Group has implemented its 'trade facilitator' gas transmission pipeline capacity trading model on their pipelines that are associated with the Wallumbilla gas supply hub, namely the: Roma to Brisbane Pipeline (RBP) and the South West Queensland Pipeline (SWQP). This initiative includes online publishing of some enhanced capacity trading information including: contracted and uncontracted capacities; daily capacity utilisation; daily capacity traded; average annual capacity traded; and bids and offers summaries.²⁷

Jemena is also planning to implement a trade facilitator model on its gas supply hub pipeline, the Queensland Gas Pipeline and this initiative may also involve publishing capacity data. Jemena and APA Group will consider expanding these services to their other pipelines if they

²⁶ See Appendix C for a complete description of each of the above items.

²⁷ <http://capacitytrading.apa.com.au/capacitytrading.aspx>

assess there is adequate demand.

The implementation of these initiatives means there are now two websites that provide eastern gas market capacity data, namely:

- AEMO's NGMBB (eastern market pipeline data); and
- APA Group's Pipeline Capacity Trading webpage (RBP and SWQP).

There are already reciprocal links on the WAGBB and NGMBB websites and stakeholders may benefit from similar links on the NGMBB to both APA Group's and Jemena's capacity trading webpages.

International Pipeline Capacity Transparency Measures

In an international context, mandated capacity trading transparency measures have been instituted in overseas markets, including in the European Union (EU) and the United States of America (US). It is recognised that there are significant differences between the EU and US gas markets and the Australian gas market. The EU and US gas markets are:

- much larger than Australia's;
- intra- and inter-connected with multiple gas transmission pipelines; and
- well-developed and highly liquid with many competitors at all levels of the supply chain.

However, both the US and EU regulators have introduced measures to improve the transparency of pipeline capacity trading, far greater than those currently seen in any Australian gas market. In contrast to Australia, the EU requires its Transmission Service Operators (TSOs) to publish detailed forward and backward pipeline capacity information. While the majority of secondary capacity trades in the US continue to be conducted bilaterally, the details of all trade must be posted on the relevant bulletin board.

International experience suggests that the benefits of improving capacity trading may go beyond the facilitation of more opportunistic access to pipeline services to also helping to build competition and liquidity in the wholesale market over time.

European Union

Concerned that contractual congestion on some pipelines represented a market failure, the European Commission revised gas regulations to provide for the development of network codes to enhance capacity utilisation at interconnection points between EU member states. As a result of changes to the gas regulations in 2009, TSOs are obliged to publish online pipeline capacity information regarding:

- maximum technical capacity for flows in both directions;
- total contracted and interruptible capacity; and
- available capacity.

Additionally, TSOs are required to publish data on available capacities for a period of at least 18 months ahead and this information must be updated at least every month. TSOs also have to provide annual long-term forecasts (up to 10 years ahead) of available capacities as well as

publish historical maximum and minimum monthly capacity utilisation rates and annual average flows at all relevant points for the past three years on a rolling basis.²⁸

United States

In the US, capacity contracts between pipeliners and shippers are published on the Federal Energy Regulatory Commission (FERC) website. Pipeliners are also required to operate an electronic bulletin board that publishes: all capacity release transactions; post operational data (including available capacities and historical flow data for all receipt and delivery points); and planned and actual outage data. While specific kinds of secondary capacity trades can occur bilaterally, the details of the trade must be posted on the relevant bulletin board.

6. ISSUES

Although significant information is already published on the NGMBB, some stakeholders have suggested that the public provision of more detailed capacity information would better support capacity trade, improve competition and help build market liquidity over time. COAG Energy Council Ministers have therefore agreed to pursue enhancements to information provision to facilitate pipeline capacity trading.

Improving transparency for transparency's sake alone is not a valid reason to mandate the provision of more detailed NGMBB data. However, as evidenced in other markets, improved transparency that involves publishing the following categories of information, not currently published on the NGMBB, can help facilitate capacity trade and inform policy development:

- contracted capacity data;
- available capacity data;
- large user information including nameplate and consumption data;
- detailed facility data, including pipeline receipt points and delivery points;
- nominated and forecast flow data for all receipt and delivery points;
- planned medium-term capacity outlook and actual outage data; and
- details of secondary capacity trades.

The provision and publishing of capacity data will impose costs on shippers, pipeline operators and AEMO. The anticipated benefits of providing and publishing any new data needs to be considered against these costs. Further, there needs to be a reasonable degree of confidence that the benefits of providing this information outweigh the cost of its provision.

Another consideration is whether publishing new information will raise material confidentiality issues and, if so, what can be done to handle these issues.

Below is an examination of enhanced pipeline capacity data options proposed in the decision RIS and some other types of data proposed by stakeholders. Each section below poses a series of questions that will assist in determining which identified information should be

²⁸ Brattle Group, 2013, *International Experience in Pipeline Capacity Trading*, 2013, [online] http://www.aemo.com.au/Gas/Market-Operations/Gas-Supply-Hub/~/_/media/Files/Other/gas_supply_hub/International_Experience_In_Pipeline_Capacity_Trading_Brattle%20Group_August_2013.pdf.ashx (accessed 27 March 2014).

collected and published on the NGMBB. When deciding what new information will be published, due consideration will also be given to what information would be appropriate in the context of the Australian eastern gas market's stage of development.

Contracted Firm and Non-firm Capacity

Currently, it may be difficult for some market participants to easily determine whether capacity is available on particular pipelines. While some pipeline operators may make this information available on their websites, there is no requirement for them to either publish this information or to provide it to AEMO for publishing on the NGMBB. Further, there is no public data concerning which market sectors, or which participants in particular sectors, hold capacity.

In addition to the lack of information concerning contracted primary firm and non-firm capacity, there is no public information concerning secondary capacity trading activity. While market participants are free to trade unused capacity they are not required to either notify the relevant pipeline operator or AEMO that a trade has occurred.

To address this information asymmetry, the RIS proposed mandating the provision and publishing of contracted firm and non-firm capacity, including secondary capacity trades, by shipper on a day-after and 365-day outlook basis.

Pipeline operators would be responsible for providing contracted primary capacity information to AEMO. Secondary capacity trade information could either be provided to the relevant pipeline operator who could then provide it along with other data or either of the parties to the trade could provide it to AEMO directly. Given that secondary trade occurs off market, largely via bilateral, non-transparent²⁹ bare transfer³⁰ arrangements, suitable arrangements would need to be developed to ensure compliance with mandated secondary capacity trading reporting. An alternative option to collect and publish some secondary capacity trade data would be to require pipeliners to report trade that had occurred under their trade facilitator model, but this may be an incomplete representation of the state of secondary trade. The reporting of this data may be subject to confidentiality requirements.

²⁹ There is no contractual obligation for parties to such transactions to notify pipeline operators of their secondary capacity trading activities.

³⁰ A bare transfer is a temporary transfer of firm capacity from a seller to buyer where the seller continues to be responsible to the pipeline operator for all financial and operational obligations.

Questions for Stakeholders

1. What is an appropriate outlook period for contracted capacity? Should different outlook periods be adopted for firm and non-firm capacity?
2. How often should contracted capacity data be provided? Should it be provided on a weekly/monthly/quarterly or another basis?
3. What would the establishment and annual costs be to provide AEMO with contracted capacity positions?
4. What secondary capacity trade data could pipeliners and/or shippers practicably provide to AEMO and what would be the establishment and annual costs to provide this data?
5. How would any confidentiality issues associated with publishing contracted capacity information (either aggregated or disaggregated) be best handled?

Flow Data

Currently, each facility operator must provide actual flow data for each NGMBB facility that it operates for each completed gas day (VTS obligations differ). Actual flow data is published on the NGMBB on a time series basis by facility and zone name.

The RIS proposed the mandated reporting and publishing of day-after, hourly gas deliveries categorised into three shipper types: retail, industrial and electricity generation.

Further, some stakeholders have indicated that NGMBB data is too high level to enable an adequate understanding of market dynamics. Improved flow data could include gas deliveries by shipper type (or actual shippers) and/or aggregated flows during the day. More granular flow data would provide a clearer indication of capacity utilisation throughout the day and enable market participants to better assess the potential deliverability of gas (e.g. a better understanding of the whether non-firm gas is likely to flow or not).

Publishing gas deliveries (actual flows) by individual shippers along with contracted positions of shippers would enable market participants to easily determine pipeline capacity utilisation by shipper. Potential capacity buyers could then contact potential sellers seeking access to unused capacity. While this information would reduce transaction costs, there may be confidentiality concerns associated with providing the market with this disaggregated information.

Questions for Stakeholders

6. What minimum level of flow data granularity would market participants seek to better trade capacity (e.g. hourly/6-hourly/12-hourly)?
7. What are the benefits and likely establishment and annual costs for providing and publishing more granular day-after gas delivery data?
8. How would any confidentiality issues associated with the publishing of more granular data identified above be best handled?

Operational Pipeline Capacity

Medium-term Capacity Outlook

While facility maintenance activities impact on market activity, there is currently no public information on medium-term operational capacity. Under bilateral contracts, facility operators may provide maintenance notices to contracted parties (i.e. shippers). However, market participants have asymmetric information because this information is not provided to all market participants. Further, this lack of public information hinders facility operators from coordinating their maintenance schedules with other facility operators.

The RIS proposed the mandated reporting and publishing operational pipeline capacity, including any operational flow orders and maintenance.

Capacity Outlook Rule Change Process

On 18 November 2013, AEMO submitted a rule change request to amend Part 18 of the NGR to increase the NGMBB short-term capacity outlook from three days to seven days, and to provide for a new NGMBB medium-term capacity outlook. On the 6 March 2014, the Australian Energy Market Commission (AEMC) released a consultation paper on the rule change request and invited stakeholder submissions by 3 April 2014.³¹ On 1 May 2014, the AEMC released a final rule determination. The rule change will commence on 8 January 2015.

The rule change will implement a new medium-term capacity outlook, utilising existing maintenance reports that are created and provided by facility operators to their shippers. The rule change will require facility operators to notify AEMO at the same time they notify their shippers of maintenance schedules, using the same format. Accordingly, data would be published in different formats and facility operators would not be required to report this new data on a consistent basis across standardised time periods.

This rule change is a negotiated outcome following consultations undertaken by AEMO over more than a 2-year period, initially as a component of the staged review of the operation and design of the Short Term Trading Market. It should be noted that initially AEMO proposed more ambitious medium-term capacity requirements. In its *Gas Market Information Draft*

³¹ AEMC, *National Gas Bulletin Board Capacity Outlooks*, <http://www.aemc.gov.au/Rule-Changes/National-Gas-Bulletin-Board-Capacity-Outlooks>

*Report*³², AEMO proposed a rolling 12-month outlook, updated on a monthly basis and subject to a materiality threshold, of which three options were considered. AEMO outlined three options for presentation of the medium-term capacity/adequacy outlook: Planned Service Outage Notification; Capacity Outlook Tabular Format; and Supply/Demand Adequacy Outlook – Graphical Representation.

A number of stakeholders, in their submissions to the AEMC’s consultation paper on the rule change request, indicate that medium-term capacity outlook information would be more useful to market participants if it was published in a standardised form and at regular intervals. Stanwell identified that ‘...standardised formats are a central requirement of data provision to enable participant use. Non-standardised information delivery greatly increases the chance of omission or misinterpretation’. Further, Stanwell argues that ‘... regular, or at least consistent and predictable, delivery is a central requirement of data provision to enable participant use’. Similarly, Alinta suggests that ‘... it would be beneficial if any additionally data sets were published in a standardised spreadsheet format consistent with existing practice, for ease of interpretation and use in reports’. While Santos believes there is no particular value for its customers in providing medium-term capacity data on the NGMBB, it notes ‘...it would seem logical to provide [medium-term capacity data] in a standardised format’.

In contrast, the Australian Pipeline Industry Association (APIA) argues that ‘... any move to standardise data provision will lead to systems costs that will significantly increase the costs associated with this Rule change proposal, and would negate APIA’s support for this proposal’.

As discussed above, the WAGBB publishes a medium-term capacity outlook for all WAGBB facilities with reporting currently under transitional arrangements until standardised reporting requirements are introduced. A 2-year period has been allowed for industry to transition to the new reporting arrangements, which will require facility operators to provide a 12-month capacity outlook to be updated on a monthly basis, if there are any changes from the previously provided information.

Questions for Stakeholders

9. What are the benefits from publishing medium-term capacity data in a standardised format?
10. Should the medium-term capacity data be provided at regular intervals, for example, provided a year in advance and updated every six months or monthly?
11. What would the establishment and annual costs be for market participants to provide AEMO with regular-interval operational capacity data in a standardised format?

³² Australian Energy Market Operator, *Gas Market Information Draft Report*, 19 December 2011, <http://www.aemo.com.au/Gas/Market-Operations/Short-Term-Trading-Market/Review-of-Short-Term-Trading-Market>

Short-term Capacity Outlook

Currently, pipeline operators are required to provide 3-day capacity outlooks by 7pm EST daily. The data is required to be updated when facility operators have knowledge that the current capacity varies from the existing published data by an amount greater than that maximum of: 10% of nameplate rating; or 30 terajoules (TJ).

As indicated previously, from 8 January 2015 the NGMBB short-term capacity outlook will increase from three to seven days. In the *Gas Market Information – Gas Bulletin Board Final Report*, AEMO outlines the following benefits from increasing the capacity outlook from three to seven days:

- Provides greater lead time for market participants to respond, including improved management of forecast shortages and contract positions;
- Aligns with the National Electricity Market short-term Projected Assessment of System Adequacy (PASA), providing participants active in both markets with a complete picture of system adequacy;
- Aligns capacity outlook data with 7-day forecast flows provided by facility operators and published on the NGMBB; and
- Better enables market participants to understand the overall supply picture and allows them to incorporate this information in their corporate decisions.

Questions for Stakeholders

12. Are further enhancements to short-term capacity outlook required, and if so, why?

Linepack

Linepack is a measure of the quantity of gas contained in a pipeline and indicates its storage capacity. By raising and lowering the pressure on any pipeline section, a pipeline operator can use the section to store gas during periods when there is less demand. Using linepack as storage allows pipeline operators to provide the market with storage products and efficiently handle hourly fluctuations in demand.

Stakeholders' understanding of market dynamics and short-term adequacy is informed by the following information: aggregated pipeline flows; short-term capacity outlook; and pipeline linepack.

Currently, pipeline operators must provide AEMO with 3-day pipeline LCA flags for each of their NGMBB pipelines. This requires pipeline operators to use a 'traffic light' reporting system (green, amber, red) to flag when expected or actual pipeline capacity is forecast to be unable to meet aggregate delivery nominations. However, the current linepack adequacy flag gives no indication of where adequacy sits within the three categories of green, red and amber.

The provision of a more detailed picture of system capability can enhance the risk assessment outcomes employed by energy market participants. In situations where the system is under stress, the beginning of day (BOD) linepack on the day can be an important part of understanding the scale of any supply issue and provides a more complete picture to stakeholders of short-term system adequacy.

A more complete system adequacy picture, by providing BOD, can provide market participants with information and lead time to respond to operational issues if they evolve thus ensuring the market can effectively respond. This can be done either by changing portfolio decisions to respond to market signals and direct gas to where it is valued most, or participants can prepare for a demand side response. Either way, this maximises the occasions where the market is able to respond and manage an event.

There has been some stakeholder support for the provision of BOD linepack amounts in TJs. BOD data could cover the current gas day starting position and also include forecast BOD linepack values for the following two days.

To date, enhanced linepack reporting has not been introduced and, as noted in AEMO's *Gas Market Information – Gas Bulletin Board Final Report*, because there has been limited stakeholder support for changes to the provision of linepack information, AEMO has not progressed enhanced linepack reporting.

While the RIS did not examine enhanced linepack reporting, some market participants continue to pursue the case for improved linepack information as they believe it would better inform their decision-making.

Questions for Stakeholders

13. Would it be appropriate to mandate enhanced linepack indicators (e.g. a high and low range within the existing categories or reporting linepack amounts in TJs) and what are the benefits and likely costs (establishment and annual) for providing and publishing more informative linepack indicators?
14. What are the benefits of publishing forecast BOD linepack figures for the current gas day and following two days? What would the establishment and annual costs be for introducing BOD linepack reporting?
15. What are the benefits of publishing enhanced gas storage facility information and what additional storage facility information would market participants value?

Other Data Published on the WAGBB

As detailed above, the IMO publishes certain information on the WAGBB that is not published on the NGMBB. It may be reasonable to require facility operators, including large users who are currently not required to provide NGMBB data, to provide AEMO with the following types of data that is published on the WAGBB:

- Detailed facility data, submitted by registered pipeline, storage and production facility operators, as well as by registered large users;

- Large user information, including nameplate capacity data and daily actual consumption data; and
- Nominated and forecast flow data by delivery and receipt points, submitted by pipeline and storage facility operators.

To address any commercial sensitivities associated with publishing day-after large user consumption data, this data could be published after a suitable period had elapsed, for example a 7-day lag period could be used.

Questions for Stakeholders

16. What are the benefits and likely establishment and annual costs for providing and publishing on the NGMBB any of the following types of information:
 - a. detailed facility data;
 - b. large user daily actual consumption data; and/or
 - c. nominated and forecast flow data by delivery and receipt points?
17. How would any confidentiality issues associated with publishing large user consumption data be best handled?
18. If there are other types of information not mentioned above that could help facilitate pipeline capacity trade:
 - a. what are they;
 - b. why would they be valuable; and
 - c. what are the likely establishment and annual costs of providing and publishing the information?

Cost Recovery

The provision of proposed additional NGMBB data will impose new costs on facility operators and also shippers who undertake secondary capacity trade. These costs will vary for participants depending on changes that may need to be made to their existing infrastructure or business systems and on their levels of activities.

There are currently three mechanisms by which market participants can recover costs associated with information provision to AEMO for publishing on the NGMBB. These are:

- merchant entities via contractual pass through arrangements;
- pipeline operators of regulated pipelines via access arrangements regulated by the Australian Energy Regulator (AER); and
- pipeline operators via use of NGR provisions (under Rule 198) to invoice AEMO for costs in relation to the provision of aggregation and information services. The NGR also

prescribes a process by which the AER can provide advice to AEMO on the reasonableness of the claims.

Market participants' abilities to pass through costs to customers via bilaterally-negotiated contracts will differ depending on contractual arrangements (e.g. existing contracts may or may not provide for cost pass through).

Although pipeline operators have an option to recover costs through the NGR provisions, and via access arrangements in the case of regulated pipelines, there are currently no NGR provisions for other facility operators (or other market participants) to recover costs for their provision of information to AEMO.

In the National Electricity Market, the National Electricity Rules require that participants provide the market some similar information to that provided to the gas market without cost recovery provisions (e.g. system adequacy data).

Western Australia's legislation/rules do not contain provisions for market participants to cost recover for their data provision. The decision to not allow for this type of cost recovery was made in recognition that:

- eastern market pipeliners were not using Rule 198 provisions to cost recover; and
- market participants were already collecting the types of data required and the costs to provide it to IMO were very low.

Questions for Stakeholders

19. Is it appropriate to allow market participants cost recovery for NGMBB data provision?
20. Are there any issues with the way in which Rule 198 operates that prevents, or limits, pipeline operators from recovering costs for providing information to be published on the NGMBB? If so, what changes should be made?
21. Is it appropriate to provide a prescribed cost recovery mechanism for other market participants on similar terms to that provided to pipeline operators under Rule 198 of the NGR?

APPENDIX A – DATA PROVIDED TO AEMO

Nameplate Rating

NGMBB facility operators must provide the nameplate rating(s) of each NGMBB facility that it operates. Facility operators must provide updated nameplate rating information if there is a material change in plant or field performance that occurs, or is scheduled to occur, that is expected to have a long-term material impact on the capacity of a NGMBB facility.

3-day Capacity Outlook

NGMBB facility operators must on each day provide the 3-day capacity outlook for each NGMBB facility that it operates for the next gas day, day+1 and day+2, by 7 pm local time. Facility operators must take account of short term changes to the availability and performance of plant that is materially impacting or will materially impact capacity during the 3-day outlook period.

Changes to capacity outlook on a gas day

In the event that the capacity outlook for a NGMBB facility materially changes on a gas day due to an unplanned outage or for any other reason, the NGMBB facility operator may provide an updated 3-day capacity outlook at any time.

Actual flows

Each pipeline operator, production facility operator or NGMBB storage provider must provide the actual flow information for each NGMBB facility that it operates in respect of each completed gas day (Victorian Transmission System (VTS) obligations differ).

Linepack Capacity Adequacy

A pipeline operator must provide a 3-day linepack capacity adequacy outlook ('LCA outlook') for each NGMBB pipeline that it operates for a gas day, day+1 and day+2 by 7 pm local time. A pipeline operator must update the LCA flag in respect of a NGMBB pipeline as soon as practicable if at any time it becomes aware of a change in the LCA flag status for any day in the current 3-day capacity outlook period.

Aggregated forecast pipeline flows

Each pipeline operator (other than the pipeline operator of the VTS) must provide the aggregated delivery nominations by zone and aggregated forecast deliveries by zone in TJs for each NGMBB pipeline that it operates consistent with delivery nominations and forecast deliveries provided to it under relevant contracts or market arrangements (VTS obligations differ). In the event that there are re-nominations before or during a gas day that materially change the aggregated delivery nominations for the pipeline on that gas day (i.e. by more than the greater of 10% nameplate rating or 30 TJ), the pipeline operator must provide this updated information on that gas day.

APPENDIX B – DATA PUBLISHED ON THE NGMBB

In its role as the NGMBB operator, AEMO must publish on the NGMBB a list of the relevant zone(s) and the default flow direction (where applicable) for each NGMBB pipeline. AEMO publishes on the NGMBB the aggregated delivery nominations by zone and aggregated forecast deliveries by zone and NGMBB pipeline for up to the next seven gas days.

In addition to the high-level data published on the NGMBB's eastern market map, the following data are provided on the NGMBB site, including in time-series downloadable files:

- **NGMBB Facilities List:** NGMBB pipelines, NGMBB production and NGMBB storage facilities
- **Zones List:** NGMBB production and demand zones
- **Standing Capacities:** nameplate ratings for all NGMBB: pipelines, production facilities and storage facilities
- **Standing Peak Day Demand forecasts:** for summer and winter and for each jurisdiction and demand zone
- **Linepack Capacity Adequacy:** 3-day LCA outlook for each NGMBB pipeline
- **Capacity Outlook:** 3-day outlook for each NGMBB pipeline, NGMBB production facility and NGMBB storage facility
- **Forecast Pipeline Flows:** aggregate delivery nominations and aggregate forecast deliveries by zone and, for Victoria, net scheduled injections by NGMBB pipeline zone
- **Actual Flows 7 days:** aggregate production/deliveries/injections as applicable for each NGMBB pipeline by zone and each NGMBB production and NGMBB storage facility for each day, up to 7 completed gas days
- **Actual Flows Previous Month:** aggregate production/deliveries/injections as applicable for each NGMBB pipeline by zone and each NGMBB production and NGMBB storage facility for each day in the previous calendar month
- **Registered NGMBB Contacts**
- **Registered NGMBB Participants**
- **Supply and Capacity Notifications**
- **Emergency Status:** authorised emergency status/statement for publication
- **Emergency Information:** emergency information page report
- **Transaction Log:** report for each NGMBB participant with exclusive access by that NGMBB participant, provides status of each csv file received by the NGMBB operator AEMO after basic validation checks

APPENDIX C – DATA PUBLISHED ON THE WAGBB

In accordance with the *Gas Services Information Rules 2013* (Western Australia), facility operators registered on the WAGBB must provide the following data:

Facility Data

Pipeline operators are required to provide data that identifies:

- physical receipt points and delivery points and the production facilities, storage facilities and transmission pipelines to which they connect;
- notional receipt points and notional delivery points utilised by the pipeline operator;
- shippers that use the facility;
- all physical delivery points that serve Distribution Systems; and
- nameplate capacities of each gate station connected to that pipeline.³³

Storage facility operators must provide facility data that identifies, for each WAGBB pipeline to which the facility is connected, the physical receipt points and delivery points at which the storage facility is connected.³⁴

Production facility operators must provide facility data that identifies, for each of the WAGBB Pipelines to which it is connected, the physical receipt points at which the production facility is connected.³⁵

A large user who submits a WAGBB registration application in relation to a large user facility must provide facility data that identifies:

- the physical delivery point or delivery points through which gas is supplied by one or more WAGBB pipelines to the facility, either directly or through a distribution system; and
- the predominant consumption category of the large user facility.³⁶

Medium-Term Capacity Outlook

Pipeline, storage and production facility operators are required to provide IMO with a medium-term capacity outlook for each of its facilities by the start of each calendar month, and that outlook must cover the period of 12 months from the start of that month.³⁷

7-Day Capacity Outlook

Pipeline, storage and production facility operators are required to provide IMO with a 7-day capacity outlook by 6pm on each gas day, unless a capacity outlook has been previously provided and the facility operator considers that no change is required.³⁸

³³ Gas Services Information Rules 2013 (Western Australia), Rule 54.

³⁴ Ibid, Rule 62.

³⁵ Ibid, Rule 69.

³⁶ Ibid, Rule 76.

³⁷ Ibid, Rules 56, 64 and 71.

³⁸ Ibid, Rules 57, 65 and 72.

Large User information

In addition to facility data, large users must provide IMO with nameplate capacity data for each WAGBB large user facility that it operates by the 31 March each year.³⁹ Registered large users must also, for each of its WAGBB facilities, provide the IMO with daily actual consumption data for each gas day by 2pm on the gas day+2.⁴⁰ Large user gas consumption data is provided on the WAGBB by facility (user) and usage category (i.e. electricity, industrial, mining etc). Further, large user consumption is provided by category and end user consumption by zone.

Nominated and Forecast Flow Data by delivery and receipt points

Nominated and forecast flow data is published on the WAGBB by delivery and receipt points, rather than by demand or production zone as is the case on the NGMBB.

Registered pipeline operators must, by 6pm on each gas day, provide for each delivery point on each of its WAGBB pipelines:

- the aggregate quantity of gas nominated by shippers to be withdrawn at the delivery point on gas day+1; and
- the aggregate quantity of gas forecasted by shippers to be withdrawn at the delivery point on each of gas days from day+2 to day+7 inclusive.

Registered pipeline operators must, by 6pm on each gas day, provide for each receipt point on each of its WAGBB pipelines:

- the aggregate quantity of gas nominated by shippers to be injected at the receipt point on gas day+1; and
- the aggregate quantity of gas forecasted by shippers to be injected at the receipt point on each of gas day+2 to day+7 inclusive.

Storage facility operators must, by 6pm on each gas day, provide data for each receipt point and delivery point on a WAGBB pipeline to which the facility is connected:

- the aggregate quantity of gas nominated by shippers to be withdrawn from each delivery point and injected into the WAGBB storage facility on gas day+1;
- the aggregate quantity of gas nominated by shippers to be withdrawn from the WAGBB storage facility and injected into each receipt point on gas day+1;
- the aggregate quantity of gas forecasted by shippers to be withdrawn at each delivery point and injected into the WAGBB storage facility on each of gas days from day+2 to day+7 inclusive, if the operator has been provided with forecast quantities by shipper; and
- the aggregate quantity of gas forecasted by shippers to be withdrawn from the WAGBB storage facility and injected into each receipt point on each of gas days day+2 to day+7 inclusive, if the operator has been provided with forecast quantities by shipper.

³⁹ Ibid, Rule 77.

⁴⁰ Ibid, Rule 78.