

18 November 2013

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Dear John

### **Rule Change Request – National Gas Bulletin Board Capacity Outlooks**

We request the Australian Energy Market Commission (AEMC) make an amendment to Part 18 of the National Gas Rules (NGR) to increase the Bulletin Board (BB) short term capacity outlook from three days to seven days, and to provide for a new BB medium term capacity outlook.

Public information on future capacities for BB facilities is limited to a three day capacity outlook available on the BB, which means that gas wholesale market participants have limited information on which to base their market bids and offers. This situation is further exacerbated because there is no public information on capacity reductions in the medium term despite this information being routinely provided to shippers at individual facilities – which leads to information asymmetry. The proposed changes will mean that all affected parties will have access to the same information in a similar time frame, and that sufficient short term information is available to inform bids and offers in the gas wholesale markets.

A description and drafting of the proposed Rule and a statement of how the proposed Rule contributes to the achievement of the National Gas Objective (NGO) is provided at Attachment A.

If made, AEMO provisionally seeks to incorporate this rule change in a special project to be released in a November 2014 release of market systems. To meet this objective we would require an AEMC draft determination on the rule change by early May 2014.

AEMO would be pleased if you could have these matters considered by the AEMC. For further details or to arrange a presentation/discussion regarding the proposal, please do not hesitate to contact Sandra McLaren, Acting Group Manager – Market Development, on (03) 9609 8355.

Yours sincerely



Mike Cleary  
**Chief Operating Officer**

Attachments: Rule Change Proposal - BB Capacity Outlooks

## Gas Rule Change Proposal – BB Capacity Outlooks

### 1 Summary

Public information on future capacities for National Gas Bulletin Board (BB) facilities is limited to a three day capacity outlook available on the BB, which means that gas wholesale market participants have limited information on which to base their market bids and offers. This situation is further exacerbated because there is no public information on capacity reductions in the medium term despite this information being routinely provided to shippers at individual facilities – which leads to information asymmetry.

This proposal is to amend Part 18 of the National Gas Rules (NGR) to:

- Increase the existing short term capacity outlook from three days to seven days
- Implement a medium term capacity outlook in format of existing maintenance reports provided by facility operators to their BB Shippers

Together, these changes will mean that all affected parties will have access to the same information in a similar time frame, and that sufficient short term information is available to inform bids and offers in the gas wholesale markets.

### 2 Relevant Background

Part 18 of the NGR requires BB Facility Operators (the operators of BB Pipelines, BB Production Facilities or BB Storage Facilities) to provide a capacity outlook for the next three days on a daily basis using a standardised transaction. AEMO publishes these capacity outlooks on the BB in a standard reporting format.

Under bi-lateral contracts, BB Facility Operators provide maintenance notices to contracted parties at their facilities. These are provided in varying formats and for varying timeframes, but are not generally made public.

## 3 Statement of Issues

### 3.1 Issues with Current Requirements

With all east coast gas wholesale markets<sup>1</sup> connected to multiple supply sources and pipelines (except Brisbane STTM which has only one pipeline), the impact of planned activities at BB facilities can be far reaching on participants of wholesale gas markets. During the STTM Phase 1 review in 2011/2, AEMO and participants identified that gas market information was a matter that should be addressed in the review. Consequently, AEMO conducted workshops and produced a Gas Market Information – Final Report in March 2012<sup>2</sup>. This review identified the following issues:

- Information adequacy – three day capacity outlook too short
- Information adequacy – no medium term capacity information published to coordinate maintenance outages
- Information asymmetry – some participants have access to more information than others

Each is described in more detail below.

#### 3.1.1 Information adequacy – three day capacity outlook too short

While the capacity of the STTM Pipelines to deliver to the STTM Hub is updated prior to the submission of bids and offers, this is not the full story – the production facilities are excluded from these notifications.

Part 18 of the NGR requires BB facility operators to provide three day capacity outlooks by 7pm EST daily, whereas the STTM requires bids and offers for the next day to be submitted by 12pm EST<sup>3</sup>. At this time, the best available capacity outlook on the BB is two days old.

The STTM also requires bids and offers for D+2 and D +3 to be submitted by 2pm EST, for which the best available capacity outlooks are three days old and not available respectively.

In the event of reduced capacity, there is insufficient time to for market participants to identify that a problem exists and to make alternate arrangements via other facilities. This can expose them to significant price risk on the wholesale markets.

#### 3.1.2 Information adequacy – no medium term capacity information published to coordinate maintenance outages

Part 18 of the NGR does not require different BB facilities to report planned maintenance activities outside the three day capacity outlook. The lack of public data can make it difficult to plan maintenance at a BB facility at a time that will not clash with maintenance at other BB facilities.

<sup>1</sup> Short Term Trading Market (Sydney, Brisbane, Adelaide Hubs), Declared Wholesale Gas Market (Victoria) and proposed Wallumbilla Gas Supply Hub (commencing March 2014).

<sup>2</sup> Gas Market Information – Gas Bulletin Board – Final Report 30 March 2012 (see <http://www.aemo.com.au/Gas/Market-Operations/Short-Term-Trading-Market/~media/Files/Other/STTM/11300711pdf.ashx> )

<sup>3</sup> Adelaide and Sydney – Brisbane is always 2.5 hrs later due to a different gas day. For simplicity, all times are referred to the Adelaide and Sydney hubs.

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This can give rise to significant costs to BB facility operators, as they may have to make last minute changes to timing of maintenance projects to avoid a clash or overlap.

A maintenance overlap between facilities can also give rise to significant market costs, as shortfalls in production or pipeline capacity drives up market prices, causing market participants without sufficient physical hedge against imbalances to purchase higher priced gas on the market. With more advance notice, those participants with this exposure could arrange short term contracts to reduce their reliance on the facility undergoing maintenance.

### **3.1.3 Information Asymmetry**

There is no requirement in Part 18 of the NGR to provide more than capacity outlooks for the next three days. Consequently, changes in capacity at BB facilities resulting from planned activities are not reported publicly, but are generally made available to shippers or users of that facility in advance of the activities.

This gives rise to information asymmetry in gas wholesale markets. Market participants with arrangements at a particular facility will be notified, but others who have no arrangements (or indirect arrangements) with that facility will not. This puts those without the information at a disadvantage in the market.

This is exacerbated for smaller market participants who generally have a limited number of arrangements with facilities when compared with larger participants with arrangements at a wide spread of facilities.

With a reliance on gas for a component of electricity generation, this asymmetry also spills over into the National Electricity Market (NEM).

## **4 Proposed Solution**

### **4.1 Proposed Solutions**

The proposed solution is twofold:

- Increase the existing short term capacity outlook from three days to seven days
- Implement a medium term capacity outlook in the format of existing maintenance reports provided by facility operators to their BB Shippers

Each is described in more detail below.

#### **4.1.1 Seven day short term outlook**

Increasing the short term capacity outlook from three days to seven days will give more warning of capacity changes expected in the short term. This directly addresses the issue that the three day capacity outlook is too short (see 3.1.1 above).

Increasing the outlook to seven days will mean that:

- There are capacity outlooks available to inform all D+1, D+2 and D+3 bids and offers;

- Changes of capacity affecting D+3 will have been known for 2 days, allowing some time to make alternative arrangements;
- The impact of changes in capacities at facilities other than the capacity of STTM Pipelines to deliver to the STTM Hub can be assessed.

The materiality limit for the three day outlook will be retained unchanged for the seven day outlook (as specified in the BB Procedures, which defines a material change as being a change that exceeds the maximum of 10% of the nameplate rating or 30TJ).

#### **4.1.2 Medium term capacity outlook**

Although the Gas Market Information – Final Report recommended implementing a more comprehensive medium term capacity outlook, analysis shows the industry costs of doing so significantly outweigh the benefits.

Implementing a medium term capacity outlook in the form of existing maintenance reports as provided to Shippers using each BB Facility is significantly cheaper for industry and shows benefits that outweigh costs – see Table 1 Cost & Benefit analysis below.

Implementing a medium term capacity outlook in this format will:

- Ensure that all BB Facilities will be able to see activities impacting BB Shippers that are planned at other BB Facilities. This directly addresses the information adequacy issue outlined in 3.1.2 above.
- Ensure that any notices sent to those BB Shippers with arrangements at any BB facility are made available to any interested party via the BB. This directly addresses the information asymmetry issue outlined in 3.1.3 above.

## **5 Proposed Rule**

### **5.1 Proposed Rule change**

The proposed rule changes provide for:

- A short term capacity outlook of seven days rather than three days; and
- A new medium term capacity outlook

To assist in understanding, some consequential changes are proposed to remove the ‘D+n’ naming convention used in the current capacity outlooks and linepack/capacity adequacy flags.

The proposed rule changes are outlined in Appendix A.

In addition to the proposed rule changes, changes will be needed to the BB Procedures, the BB Participant Build Pack and the BB Reports List. These are outlined below, but are not part of the rule change proposal.

The proposed procedure changes are outlined in Appendix B for information only, as AEMO will conduct a separate consultation process for procedure changes.

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### 5.1.1 Extend capacity outlook to seven days

Part 18 of the NGR has rules 165, 168 and 171 obliging the operators of BB Production facilities, BB storage facilities and BB Pipelines respectively to provide a three day capacity outlook. These will be updated to a short term capacity outlook which will cover seven gas days.

The definitions in rule 141 will need to be updated accordingly, with changes as follows:

- Daily production capacity (changed to 'Daily Capacity')
- Daily production capacity outlook (changed to 'Short term Capacity Outlook')
- Medium Term Capacity Outlook (New definition)

Section 5.4 '3-day Capacity Outlooks' of the BB Procedures will need to be updated to reflect a short term capacity outlook covering seven days rather than a three day capacity outlook.

Section 4.3.4 'Capacity Outlook' of the BB Participant Build Pack will need to be updated to reflect that the CAPACITYOUTLOOK transaction will contain seven gas days rather than three days. No changes to transaction format or validation will be required.

Section 4.6 'INT922 – Capacity Outlook' of BB Procedures Annexure B – Bulletin Board Reports List will need to be updated to reflect a seven day report rather than three days. No changes to the report format are required.

### 5.1.2 Introduce a medium term capacity outlook

There are no existing rules covering a medium term capacity outlook. Part 18 of the NGR has rules 165, 168 and 171 covering capacity outlooks which will be updated to include a medium term capacity outlook.

The definitions in rule 141 will need to be updated accordingly.

A new section 5.4A will be added to the BB Procedures between sections 5.4 and 5.5 to cover the medium term capacity outlooks.

A new section 4.3.4A 'Medium Term Capacity Outlook' will be added to the BB Participant Build Pack to cover provide submission details.

## 5.2 Draft of Proposed Rule

A draft of the proposed rule has been included in Appendix A:

## 6 How the Proposed Rule Contributes to the National Gas Objective

Before the AEMC can make the a Rule change it must apply the rule making test set out in the NGL, which requires it to assess whether the proposed Rule will or is likely to contribute to the NGO. 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.

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The proposed rule change promotes efficiency of operation of wholesale gas markets and gas facilities through:

- Improved market information on upcoming capacity changes allows all market participants to have access to the same information in a timely manner, leading to more efficient market and pricing outcomes.
- Better reliability of supply through early identification of potential overlapping maintenance periods, allowing rescheduling or alternate supply arrangements to be put in place.

Where market participants can better manage their own exposure to wholesale gas markets through early identification of upcoming capacity issues at operational facilities, they will be able to compete against each other more efficiently. This should result in their ability to offer lower prices to consumers to attract their business.

## 7 Expected Benefits and Costs of the Proposed Rule

### 7.1 Expected costs and benefits

The proposed rule will allow all market participants and interested parties to access the same information in similar timeframes and in sufficient time to take action as needed to manage their market risks. In a December 2012 report to the Independent Market Operator<sup>4</sup>, Sapere found that there was a benefit in introducing a Gas Bulletin Board in Western Australia when assessed against a central (preferred) scenario.

Sapere proposed that the benefits could be determined as a percentage of the value of the market. Further they identified that the benefits in WA might be expected to accrue as follows:

- 38 per cent of the total estimated benefit arises from increased competition in production and supply, stemming from increased information flows around supply and demand fundamentals, which also includes potential new entry;
- 17 per cent of total estimated benefit arises from better coordination of planned outages; and
- 45 per cent of total estimated benefit arises from more efficient risk management (i.e. the ability to reduce the “premium” paid by market participants to hedge their deliveries and off-takes in order to stabilise cash flows)<sup>5</sup>

In determining the benefits for the proposed changes to the BB, our analysis has focused on the benefits accruing as a result of better planning of outages and a portion of the benefits accruing as a result of better risk management. The benefits arising from increased competition are assumed to have already been achieved once the BB commenced in 2008, as did most of the benefit for more efficient risk management. Our analysis is therefore based on the same percentage of

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<sup>4</sup> Davies, P Murray, K 2012 Sapere Research Group Limited, “Report to the Independent Market Operator - Cost-benefit analysis of Gas Bulletin Board and Gas Statement of Opportunities” available < [http://www.imowa.com.au/f6276,4084153/FINAL\\_CBA\\_Report\\_-\\_20\\_December\\_2012.pdf](http://www.imowa.com.au/f6276,4084153/FINAL_CBA_Report_-_20_December_2012.pdf) or [click here](#)>, viewed 25 September 2013.

<sup>5</sup> Davies, P Murray, K 2012, *ibid*

market value proposed by Sapere for the low, central and high scenarios which are set out in Table 1 below.

Detail	Low benefit	Medium benefit	High benefit
GJ produced (2012/3 BB production actuals)	656,603,300	656,603,300	656,603,300
Value at \$5 per GJ	\$ 3,283,016,500	\$ 3,283,016,500	\$ 3,283,016,500
Sapere % benefits	0.04%	0.15%	0.50%
Attributable to STO and MTO	18.1%	18.1%	18.1%
5 year NPV on benefits at 8.5%	\$ 678,000	\$ 2,541,000	\$ 8,469,000
5 year NPV on costs STO and MTO - low cost case	\$ 355,000	\$ 355,000	\$ 355,000
<b>Net Benefit STO and MTO - Low cost</b>	<b>\$ 323,000</b>	<b>\$ 2,186,000</b>	<b>\$ 8,114,000</b>
<b>Benefit / Cost ratio STO and MTO - Low cost</b>	<b>1.91</b>	<b>7.16</b>	<b>23.86</b>
5 year NPV on costs STO and MTO - high cost case	\$ 579,000	\$ 579,000	\$ 579,000
<b>Net Benefit STO and MTO - High cost</b>	<b>\$ 99,000</b>	<b>\$ 1,962,000</b>	<b>\$ 7,890,000</b>
<b>Benefit / Cost ratio STO and MTO - High cost</b>	<b>1.17</b>	<b>4.39</b>	<b>14.63</b>

Table 1 Cost & Benefit analysis

The analysis shows that even at the high cost / low benefit scenario there is a net benefit of +\$99k over five years. This rises to over +\$8.1 million for the low cost/ high benefit scenario.

A sensitivity analysis shows that for the high cost / low benefit scenario, a 2% increase in discount rate reduces the net benefit to +\$41k.

The following inputs were used for the cost and benefit analysis:

Item	Value
Discount rate for NPV	8.5% pa
Inflation rate for ongoing costs	5% pa
AEMO systems cost (capex) in year 0	\$39k
AEMO implementation costs (opex) in year 0	\$18k
AEMO ongoing costs years 1 to 5	\$41k in Year 1, inflated at annual inflation rate
Industry implementation costs (capex) in year 0 <sup>6</sup>	\$103k
Industry ongoing costs year (opex) in year 0 <sup>5</sup>	\$0
Industry ongoing costs years 1 to 5 <sup>5</sup>	\$13k
High cost scenario multiplier <sup>7</sup>	1.25
Depreciation of capex per year	20%
Interest	At discount rate on declining balance

<sup>6</sup> As provided by facility operators August 2013. Where no response was provided, an average of the responses received was used.

<sup>7</sup> Costs are increased using the multiplier.

Item	Value
Percentage of benefit attributable to STO and MTO	Coordination of outages ..... 100% of 17% Efficient risk management.... 2.5% of 45% Total..... 18.1%
Percentage of benefit realised in years following implementation. <sup>8</sup>	Year 1 ..... 60% Year 2 ..... 70% Year 3 ..... 80% Year 4 ..... 90% Year 5 ..... 100%

Table 2 Inputs to Cost benefit Analysis

## 7.2 Potential impacts of the proposal

All wholesale gas market participants will benefit through increased availability of information that can be used in their trading operations.

BB Facility operators will need to implement changes to their systems to provide seven day short term capacity outlooks and to provide a copy of maintenance notifications to AEMO. From the eight responses provided to AEMO by Facility operators (out of 14 Facility Operators), these costs were:

Facility Operator costs for:	Minimum	Maximum	Average
STO	\$0	\$30,000	\$5,750
MTO	\$0	\$10,000	\$1,625
STO ongoing pa	\$0	\$0	\$0
MTO ongoing pa	\$0	\$6,000	\$900

Table 3 Summary of Facility Operator costs

These costs will need to be assimilated by the BB Facility Operators, as there is no provision for cost recovery. However, BB Facility Operators do have benefits in improved planning of their maintenance activities in relation to other facilities (see 7.1 above). In a recent example in Victoria, AEMO ordered planned maintenance to be delayed at short notice because of an overlap of maintenance activities – which has meant contractors engaged for the maintenance had to be stood down.

<sup>8</sup> It is assumed that the full benefits attributable to STO and MTO are not available in the first year. Thus the benefit available in Year 1 is 60% of 18.1% = 10.7%.

## Appendix A: Draft Rule

This draft is based on version 18 of the National Gas Rules.

In this appendix, insertions or deletions are marked as follows:

Inserted – text inserted, blue

~~Deleted~~ – text deleted, red

### Part 18 Natural Gas Services Bulletin Board

#### Division 1 Interpretation and application

#### 141 Interpretation

(1) In this Part:

[...]

**Daily ~~production~~ capacity means:**

(a) 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; and

(b) for a BB pipeline, of natural gas that can be transported through that BB pipeline on a gas day for that pipeline.

~~daily production short term capacity outlook for a gas day~~ means, on any gas day, the BB storage provider's, ~~or~~ production facility operator's or pipeline operator's (as the case may be) good faith estimate of the daily ~~production~~ capacity of the relevant BB facility ~~on that~~ for each of the next 7 gas days.

[...]

medium term capacity outlook for a BB facility means information that the operator of that facility issues to relevant BB shippers about matters expected to affect the daily capacity of the facility for an outlook period extending beyond the current short term capacity outlook provided by the relevant operator, which may include the information specified in the BB Procedures and includes any updates to information previously issued.

[...]

(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).

[...]

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

### 163 Provision of information by BB facility operators

[...]

- (3) ~~[Deleted] In this Division day + 1 and day + 2 mean one gas day and two gas days respectively after the first gas day for which information is provided.~~

[...]

### 165 Obligation on production facility operators to provide ~~3-day production~~ capacity outlooks

In accordance with the BB Procedures and subject to rule 163(4), a production facility operator must provide to ~~the~~ AEMO, for each BB production facility that it operates: ~~in respect of each gas day for a BB production facility that it operates, the daily production capacity outlook for that BB production facility for that gas day, day + 1 and day + 2~~

- (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.

[...]

### 168 Obligation on BB storage providers to provide ~~3-day~~ 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: ~~in respect of each gas day for a BB storage facility that it operates, the daily production capacity outlook for that BB storage facility for that gas day, day + 1 and day + 2~~

- (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.

[...]

### 171 Obligation on pipeline operators to provide ~~3-day~~ 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: ~~in respect of each gas day for each of its BB pipelines, the pipeline operator's good faith estimate of the quantity of natural gas that, under normal operating conditions, can be transported through that BB pipeline on that gas day, day + 1 and day + 2.~~

- (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.

### 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, ~~in respect to each gas day,~~ the LCA flag for

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each of its BB pipelines for ~~that gas day and~~ each of the ~~following 2~~ next 3 gas days ~~;~~  
~~day + 1 and day + 2.~~

- (2) If at any time a pipeline operator determines ~~during a gas day~~ that the ~~most recent~~  
current LCA flag for a BB pipeline provided under subrule (1) for a gas day ~~or for day +~~  
~~1 and day + 2~~ 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, ~~for any of those gas days~~, then the pipeline operator must  
provide AEMO with an updated LCA flag for the BB pipeline for the relevant gas days  
as soon as practicable.

[...]

## Appendix B: Draft BB Procedure changes

AEMO is proposing to consult on the following complementary Natural Gas Services Bulletin Board Procedures (the Procedures) changes to implement the proposed rule changes.

This draft is based on version 2.0 of the Procedures.

### 5 Information Provision Obligations

#### 5.4 3-day Short Term Capacity Outlooks

- a. For the purposes of rule 165, rule 168 and rule 171, each *BB production facility operator*, *BB storage provider* and *BB pipeline operator* must ~~on each day~~, provide the [short term capacity outlook](#) for each *BB facility* that it operates ~~for the next gas day, by 7pm local time on each gas day (day + 1 to and day + 62), by 7pm local time.~~

The [daily capacity](#) ~~3-day capacity outlook~~ for a *gas day* [in a current short term capacity outlook](#) may be ~~subsequently~~ updated before or after that *gas day* has commenced (e.g. due to an unplanned event) by uploading an updated file in the standard format.

- b. Short term changes to capacity

The [daily capacity](#) ~~3-day capacity outlook~~ of a *BB facility* is specified in TJ/day, and [The short term capacity outlook](#) should 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~~7-day outlook period.

Operators of *BB production facilities* must also take account of any short term trends in gas field performance if this is constraining or will constrain overall production capability within the ~~3~~7-day outlook [period](#).

For the purposes of [the short term capacity outlook](#), ~~Bulletin Board information~~, a 'material [impact on change](#)' to capacity ~~in respect of the 3-day capacity outlook~~ means a change [in daily capacity](#) exceeding the greater of:

- i. 10% of the *nameplate rating*; and
- ii. 30TJ/day.

Smaller changes in capacity due to normal day to day variations in operating conditions are not considered to be material and, therefore, no day to day change need be indicated in the *daily capacity* data provided.

The facility operator may provide the reason for the change in capacity by using the 'free text' field provided for in the transaction file.

The obligation on the *BB facility operator* is to ensure that the [short term capacity outlook for the next 7-day period](#) ~~3-day outlook~~ published on the *Bulletin Board* reasonably reflects the *BB facility operator's* knowledge of the plant capability and availability over that time.

- c. Changes to [capacity](#) on a *gas day*

In the event that the ~~daily capacity capacity outlook~~ for a *BB facility* materially changes on a gas day due to an unplanned outage or for any other reason, the *BB facility operator* may provide an updated ~~short term capacity outlook 3-day capacity outlook~~ at any time. Such updates will be processed and published on the *Bulletin Board* by AEMO in the relevant standard report(s) immediately following the next *Bulletin Board* polling time.

- d. The following are exceptions to the requirement to provide ~~short term capacity outlooks information~~ under rule 165, rule 168 or rule 171:
  - i. Rule 165, rule 168 or rule 171 do not apply to a *BB facility operator* in respect of a *BB facility* on a day if the *BB facility operator* considers the *short term capacity outlook* for that *BB facility* is unchanged from the data included in the last ~~3-day capacity outlook short term capacity outlook~~ provided by that *BB facility operator* to AEMO for that *BB facility* ~~under rule 165, rule 168 or rule 171~~.
  - ii. If on ~~any gas day day~~ the *BB facility operator* does not provide the ~~short term capacity outlook information required for a BB facility under rule 165, rule 168 or rule 171~~ in accordance with these procedures, then the ~~short term capacity outlook 3-day capacity outlook~~ data for that facility will be deemed to be unchanged for each of the gas days specified in the last ~~3-day short term capacity outlook data~~ provided, and for subsequent gas days the ~~short term capacity outlook data~~ will be deemed to be ~~the same as the capacity outlook data for the last gas day included in a short term capacity outlook provided to AEMO unchanged from the last advised capacity outlook data for day + 2~~.

Illustrative Example

On Monday, a *BB facility operator* provides the following ~~short term capacity outlook 3-day capacity outlook~~ data:

Tue (gas day)	Wed (day +1)	Thur (day +2)	<u>Fri</u>	<u>Sat</u>	<u>Sun</u>	<u>Mon</u>
30 TJ	40TJ	50TJ	<u>50TJ</u>	<u>50TJ</u>	<u>50TJ</u>	<u>45TJ</u>

On Tuesday, the *BB facility operator* does not provide any further ~~short term capacity outlook 3-day capacity outlook~~ data as no material change is expected, so the deemed ~~short term capacity outlook 3-day capacity outlook~~ commencing Wednesday for publication on the *Bulletin Board* will be:

Wed (gas day)	Thur (day +1)	Fri (day +2)	<u>Sat</u>	<u>Sun</u>	<u>Mon</u>	<u>Tue</u>
40TJ	50TJ	50TJ	<u>50TJ</u>	<u>50TJ</u>	<u>45TJ</u>	<u>45TJ</u>

Similarly, if no ~~short term capacity outlook 3-day capacity outlook~~ data is provided by the *BB facility operator* on Wednesday, the deemed ~~short term capacity outlook 3-day capacity outlook~~ from Thursday for publication on the *Bulletin Board* will be:

Thur (gas day)	Fri (day +1)	Sat (day +2)	<u>Sun</u>	<u>Mon</u>	<u>Tue</u>	<u>Wed</u>
50TJ	50TJ	50TJ	<u>50TJ</u>	<u>45TJ</u>	<u>45TJ</u>	<u>45TJ</u>

**5.4A Medium Term Capacity Outlook**

- a. For the purposes of rule 165, rule 168 and rule 171, a medium term capacity outlook provides information about the expected capacity of a BB facility in the period covered by

the outlook, and in particular about the timing and impact of planned activities that may reduce or increase the *daily capacity* of the *BB facility* relative to its normal capacity.

- b. A *medium term capacity outlook* must identify the *BB facility* to which it relates and may include (by way of example):
  - i. the expected start and end dates of activities expected to affect *daily capacity*.
  - ii. a description of the relevant activity;
  - iii. the expected *daily capacity* of the *BB facility* during that period; or
  - iv. a statement that no relevant maintenance activities have been planned for the *BB facility*.
- c. A *BB production facility operator*, *BB storage provider* or *BB pipeline operator* may remove any information that is confidential to an individual *BB shipper* from the copy of a *medium term capacity outlook* that it provides to AEMO.

## 5.6 Linepack Capacity Adequacy (LCA)

- a. For the purposes of rule 172(1), a *pipeline operator* must, by 7pm local time on each day, provide the 3-day linepack capacity adequacy outlook ('LCA outlook') for each *BB pipeline* that it operates for each of the next 3 gas days. ~~a gas days. day + 1 and day + 2, by 7pm local time.~~

In accordance with rule 172(2), a *pipeline operator* must update the *LCA flag* in respect of a *BB 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 LCA ~~capacity~~ outlook period.

[...]

## 7. Operation of the Bulletin Board

[...]

### 7.4 Gas Day Ranges Published in Reports

Many operational reports published on the *Bulletin Board* show quantities against *gas day* for a range of *gas days*. In these reports, the information will move forward by one *gas day* in the first *Bulletin Board* report update cycle following the first polling time on or after 3 am AEST.

By way of example, in the ~~3-day~~ *short term capacity outlook* report illustrated in the table below, the *gas day* dates in the capacity report move forward one day in the first updated reports published after 3 am AEST. In this example, it is assumed that the frequency of polling and table updating is less than 10 minutes such that the change in the *gas days* reported is seen when the AEST time is 3:10 am.

Time report accessed				3-day Short term capacity outlook							
Date	Local	Juris.	AEST	gas day 1	day 2 +1	day 3+2	day 4	day 5	day 6	day 7	
2-Jan	5:00 AM	Qld	6:00 AM	2-Jan	3-Jan	4-Jan	<a href="#">5-Jan</a>	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	
2-Jan	1:00 PM	Qld	2:00 PM	2-Jan	3-Jan	4-Jan	<a href="#">5-Jan</a>	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	
2-Jan	8:00 PM	Qld	9:00 PM	2-Jan	3-Jan	4-Jan	<a href="#">5-Jan</a>	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	
<b>3-Jan</b>	<b>1:00 AM</b>	<b>Qld</b>	<b>2:00 AM</b>	<b>2-Jan</b>	<b>3-Jan</b>	<b>4-Jan</b>	<a href="#">5-Jan</a>	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	
<b>3-Jan</b>	<b>2:10 AM</b>	<b>Qld</b>	<b>3:10 AM</b>	<b>3-Jan</b>	<b>4-Jan</b>	<b>5-Jan</b>	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	<a href="#">9-Jan</a>	

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3-Jan	5:00 AM	Qld	6:00 AM	3-Jan	4-Jan	5-Jan	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	<a href="#">9-Jan</a>
3-Jan	1:00 PM	Qld	2:00 PM	3-Jan	4-Jan	5-Jan	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	<a href="#">9-Jan</a>
3-Jan	11:00 PM	Qld	12:00 AM	3-Jan	4-Jan	5-Jan	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	<a href="#">9-Jan</a>
4-Jan	1:00 AM	Qld	2:00 AM	3-Jan	4-Jan	5-Jan	<a href="#">6-Jan</a>	<a href="#">7-Jan</a>	<a href="#">8-Jan</a>	<a href="#">9-Jan</a>

[...]

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## Appendix C: Consultation

In developing these rule and procedure changes, AEMO has consulted with BB Participants as follows:

### 1. Gas Market Information – Final Report

In March 2012, AEMO released the final report into Gas Market Information that had evolved out of the STTM Phase 1 review. This included the recommendation to:

- Extend the three day capacity outlooks to seven days
- Introduce a Medium Term capacity Outlook

This report was developed after 3 public workshops and consultation on the Draft report.

For more details refer to AEMO's website or via <http://www.aemo.com.au/Gas/Market-Operations/Short-Term-Trading-Market/Review-of-Short-Term-Trading-Market> .

### 2. BB Facility Operators workshop

AEMO held a workshop for BB Facility Operators on 23 July 2013, at which the Facility Operators agreed the capacity outlook formats in this proposal were practical and agreed to provide costs for implementing them.

### 3. BB Participants and Wholesale Gas Market Participants workshop

AEMO held a workshop for BB Participants (including facility operators) on 27 August 2013, and any interested members of the STTM Consultative Forum and Gas Wholesale Consultative Forum distribution lists. The proposals agreed at the BB facility operator's workshop were presented to the workshop and endorsed with some minor changes. AEMO agreed to obtain comments on the proposed rule changes.

### 4. Request for comments on proposed rule and procedure changes

BB Participants and Wholesale Gas Market Participants were emailed to provide comments on the proposed rule changes. Eleven submissions were received, and have been incorporated in this rule change proposal (with the exception of three requests to change the name of Medium Term Capacity Outlook which was not accepted on the basis that there was no consistency between the requests and the majority of submission did not raise the issue).

## Glossary

<b>Term or Abbreviation</b>	<b>Explanation</b>
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
BB	National Gas Bulletin Board
DWGM	Declared Wholesale Gas Market
GWCF	Gas Wholesale Consultative Forum
MCE	Ministerial Council on Energy
MTO	Medium Term Capacity Outlook
NGL	National Gas Law
NGO	The National Gas Objective as stated in section 23 of the NGL
NGR	National Gas Rules
NPV	Net Present Value
STO	Short term Capacity Outlook
STTM	Short Term Trading Market
STTM CF	Short Term Trading Market Consultative Forum