



Declared Wholesale Gas Market – Intervention Report

December 2020

Notice of threat to system security

A report into the notice of threat to system security for gas days 7-11 December 2020

IMPORTANT NOTICE

Purpose

AEMO has prepared this report pursuant to rule 351 of the National Gas Rules, using information available as at 14 December 2020, unless otherwise specified.

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1. Introduction

On 5 December 2020 AEMO notified the market of a threat to system security in the Victorian Declared Wholesale Gas Market (DWGM) for gas days 7-11 December 2020, due to an outage of the Brooklyn Compressor Station (BCS). AEMO initially scheduled 15.2 TJ of out-of-merit-order Iona injections for the 6.00 am schedule for gas day 7 December in the two-day-ahead schedule which was ultimately not required by the time the gas day commenced.

On gas days 7-11 December 2020, APA undertook planned maintenance work at the BCS which limited the flow of gas on the South West Pipeline (SWP). During the BCS outage, net physical withdrawals from the SWP could not be supported and net injections, from Iona Close Proximity Point (Iona CPP), into the SWP would be required to provide enough gas supply to support demand supplied from the SWP, Brooklyn Lara Pipeline (BLP) and the Western Transmission System.

If pressures within the DWGM are forecast to fall below minimum operating limits, AEMO will indicate to the market that there is a threat to system security and may schedule out-of-merit-order injections, to maintain system security.

Rule 351 of the National Gas Rules (NGR) requires that AEMO investigate and prepare a report following an event which is or may be a threat to system security. Rule 351 also requires that AEMO assess and advise on:

- the adequacy of the provisions of the NGR relevant to the event or events;
- the appropriateness of actions taken by AEMO in relation to the event or events; and
- the costs incurred by AEMO and Registered participants as a consequence of responding to the event or events.

This report is published in accordance with rule 351(2) of the NGR. All times used in this report are AEST.

2. Event Summary

On 5 December 2020, as a result of the BCS outage, AEMO notified the market of a threat to system security for gas days 7-11 December in the DWGM. AEMO initially scheduled 15.2 TJ of out-of-merit-order Iona injections for the D+2 6.00 am schedule for 7 December 2020. However, this amount was then reduced to 0 TJ before the commencement of the gas day, as the minimum required net injection amount could be achieved by reducing controllable withdrawals at Iona CPP.

Figure 1 indicates the minimum daily Iona CPP net injections required to meet system demand during the period 7-11 December 2020. Table 1 shows the daily forecast demand for the 6.00 am schedule, the minimum required, and actual scheduled, net injections from Iona CPP.

Figure 1 Minimum daily Iona CPP net injections required to meet system demand relative to 6.00 am demand forecasts

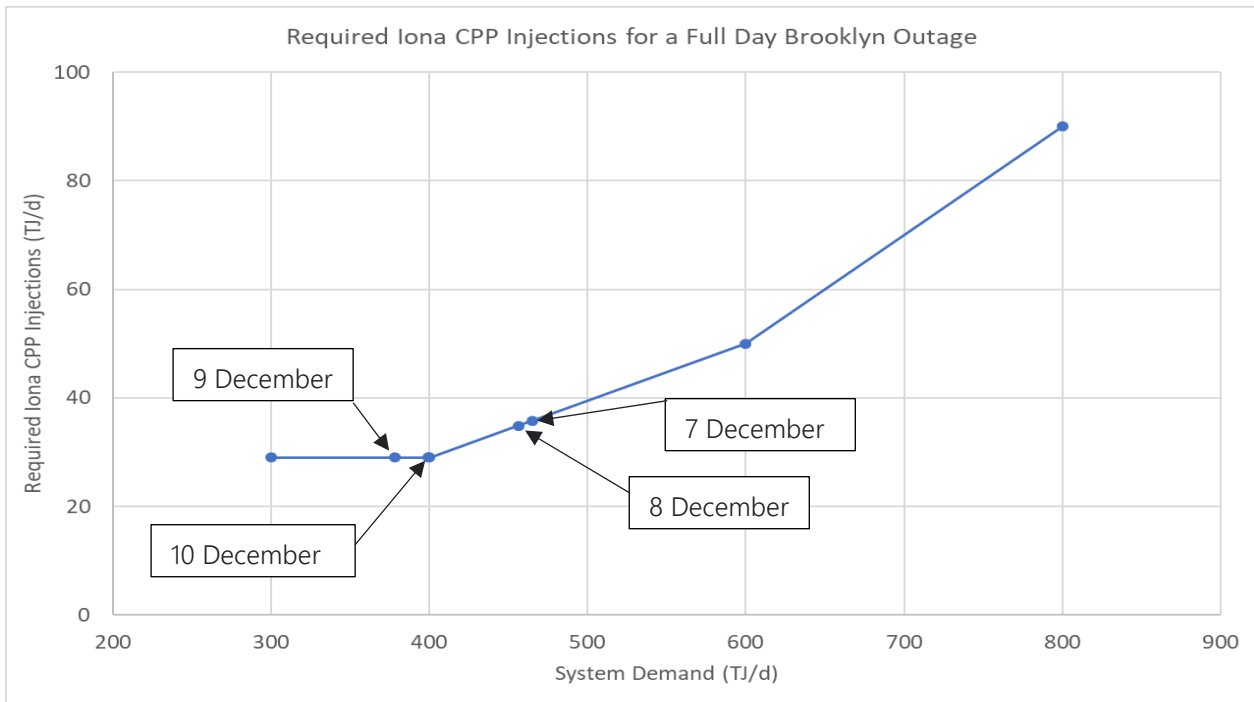


Table 1 6.00 am system demand forecasts and Iona CPP net injections

Gas Day	6.00 am AEMO system demand forecast (TJ)	6.00 am requirement net injection at Iona CPP (TJ)	6.00 am scheduled net injection at Iona CPP (TJ)
7 December	465	35	35
8 December	456	35	54
09 December	378	29	29
10 December	399	29	21 ¹
11 December	369	29	4 ²

On 11 December 2020 at 16.00 hrs, APA returned BCS to full service and AEMO notified the market that the SWP withdrawal capacity had been restored. On 14 December at 11.49 hrs AEMO notified the market that the threat to system security had ended. No out-of-merit-order gas was scheduled for the duration of the outage and there was no material impact on the market.

A chronology of events is included in appendix A1.

¹ Figure 1 indicates that the requirement should have been 29 TJ of Iona CPP net injections, however there was sufficient linepack to support the lower net injections on gas day 10 December 2020.

² BCS was not on outage for the full day for gas day 11 December 2020 and there was sufficient linepack, resulting in a lower requirement for net injections at Iona CPP

3. Assessment of event

This event was a result of APA planned maintenance and shut down of BCS which could cause a supply and demand imbalance due to insufficient net injections at Iona CPP.

The market was notified of a threat to system security due to a supply and demand imbalance as a result of there being insufficient net injections at Iona CPP. AEMO called for a market response in accordance with NGR 342.

3.1 Adequacy of Part 19 of the NGR

In respect to this event, AEMO has assessed the application and adequacy of the NGR, with a primary focus on the following provisions:

- NGR 326 Maintenance Approval
- NGR 341 Notice of threat to system security
- NGR 351 Intervention Reports

3.1.1 Maintenance Approval

The NGR 326(1) requires AEMO to coordinate maintenance schedules in order to ensure that system security is not threatened. AEMO and service providers under NGR 326(4) are required to cooperate when there is proposed maintenance activities to minimise any potential threat to system security.

For this event, AEMO had approved the planned maintenance to go ahead between 7-11 December 2020, a typically lower demand period in the DWGM. AEMO convened an industry teleconference to ensure participants were aware of the potential impacts of the BCS outage.

3.1.2 Notice of threat to system security

NGR 341 requires that if AEMO believes there is a potential threat to system security, it must notify Registered participants, without delay, the details of that threat to system security.

AEMO notified the market of the threat to system security at 11.46 hrs on 5 December 2020, and provided subsequent notifications indicating the potential for out-of-merit-order gas to be scheduled at Iona CPP. AEMO also notified the market regarding:

- removal of out-of-merit-order injections at Iona CPP;
- where minimum net injections at Iona CPP had been achieved;
- where constraints had been applied to Iona CPP; and
- the return to service of BCS and the end to the threat to system security.

If AEMO reasonably considers that a threat to system security is unlikely to subside without intervention (NGR 343), AEMO must intervene in the market by taking any measures it believes are reasonable and necessary to overcome the threat to system security.

In this event, the issue was maintaining system security for the SWP. This was resolved by constraining down controllable withdrawals from Iona CPP when required.

AEMO notes there was some minor inconsistencies in the application of notifications in this event, specifically:

- The threat to system security notice was published multiple times on the MIBB³. This appears unnecessary as the original threat to system security notice covered the relevant dates.
- The notification that the threat to system security had ended was not explicitly sent out until 14 December 2020. AEMO notes that a system wide notice was sent out on 11 December indicating that APA had returned BCS to service at 16.00 hrs on 11 December 2020 and that SWP withdrawal capacity had been restored.

AEMO notes that NGR 343 specifies some of the options available to AEMO when intervening in the market are:

- Curtailment in accordance with the emergency curtailment list
- Increasing withdrawals
- Requiring gas to be injected which is available but not bid into the market
- Injecting off-specification gas
- Requiring registered participants to do any reasonable act or thing that AEMO believes necessary in the circumstances.

Within the NGR provisions 213, 214 and 215, AEMO notes that it may possible to constrain on gas that has already been bid into the market, without needing to notify the market of a threat to system security. However, this would need to consider existing constraints and system security. AEMO finds that the NGR provisions are adequate and has been conducting further review of the need to notify the market of a threat to system security to constrain on gas that has already been bid into the market.

3.1.3 Intervention Report Timing

NGR 351 places an obligation on AEMO to publish a report within 10 business days after a threat to system security event. AEMO has adopted the following approach to reporting on these events, wherever possible:

- Investigate and publish a report based on immediately available data within 10 business days of the relevant event.
- Where not all information necessary to complete the required assessment is available, that report will be flagged as preliminary, with a final report to be published once the additional information is received and analysed.

For the purposes of this report, AEMO believes it has all necessary information and does not intend to publish a subsequent report.

3.2 Appropriateness of actions taken by AEMO

AEMO's objectives during this event were to:

- Operate in accordance with the NGR and the Wholesale Market Procedures;
- Limit the risk of involuntary curtailment to customers including any GPG;
- Alleviate the threat to system security and return the DWGM to normal operating conditions.

In this event, AEMO took all reasonable steps to coordinate the maintenance activities with the service provider, assess the forecasts and notify the market accordingly. However, AEMO did not explicitly notify Registered participants that the threat to system security had ended until Monday 14 December 2020. APA returned BCS to full service at 16.00 hrs on 11 December 2020 and AEMO notified the market of this indicating that SWP withdrawal capacity had been restored.

³ The Market Information Bulletin Board is one of the electronic communication systems used for the DWGM. AEMO notes that the notices would have been previously published at http://vicgas.prod.marketnet.net.au/Public_Dir/Documents/SWN_Attachment/ but are now published in the following location http://vicgas.prod.marketnet.net.au/Public_Dir/SWN_Attachments/ (both of these links are only able to be accessed by participants)

3.3 Costs of intervention

In response to the notice of a threat to system security issued for gas days 7-11 December 2020, AEMO initially scheduled 15.2 TJ of out-of-merit-order Iona injections for the 6.00 am schedule on 7 December 2020 in the two-day-ahead schedule which was deemed not required before the commencement of gas day 7 December 2020. As a result, there was no market impact.

4. Conclusion

AEMO notified the market of a threat to system security in the Victorian DWGM for gas days 7-11 December 2020. AEMO initially scheduled 15.2 TJ of out-of-merit-order Iona injections for the 6.00 am schedule on 7 December 2020 which was reduced to zero and had no impact on the market.

Rule 351 of the National Gas Rules (NGR) requires that AEMO investigate and prepare a report following an event which is or may be a threat to system security.

AEMO has assessed the application and adequacy of associated NGR provisions and finds that these provisions were applied correctly. AEMO did not explicitly notify the market as soon as the threat had ended and will review internal processes.

Please direct any feedback or questions regarding this report to GasMarket.Monitoring@aemo.com.au.

A1. Chronology

Date/Time (AEST)	Event/Action	Details
19 November 2020	APA contact AEMO	APA provided AEMO with a finalised schedule for the BCS outage occurring from 6.00 hrs on 7 December 2020 until 18.00 hrs on 11 December 2020. AEMO notified the market indicating and industry teleconference will be held.
20 November 2020	Industry conference	AEMO convened an industry teleconference to discuss the potential impacts of the BCS outages.
4 December 2020 9.46 hrs	Market notice	AEMO notified the market indicating a full BCS outage scheduled 7 December to 11 December 2020. Participants were advised that SWP net injections may be required to maintain system security.
5 December 2020 8.04 hrs	Market notice	AEMO notified the market indicating a constraint had been applied at Iona CPP to restrict net withdrawal quantity to 0 GJ/hour between 22.00 hrs and 6.00 hrs for gas day 6 December 2020 to support BCS outage.
5 December 2020 11.41 hrs	Market notice	AEMO notified the market of a threat to system security calling for a market response. AEMO scheduled 15.2 TJ of out-of-merit-order Iona injections for the 6.00 am schedule on gas day 7 December 2020.
6 December 2020 7.39 hrs	Market notice	AEMO notified the market indicating that out-of-merit-order injections have been removed at Iona CPP for gas day 7 December 2020. An additional threat to system security notice was published.
6 December 2020 15.26 hrs	Market notice	AEMO scheduled 12 TJ of out-of-merit-order Iona injections for the 6.00 am schedule on gas day 7 December 2020. An additional threat to system security notice was published.
6 December 2020 22.50 hrs	Market notice	AEMO scheduled 5 TJ of out-of-merit-order Iona injections for the 6.00 am schedule on 7 December 2020. An additional threat to system security notice was published.
7 December 2020 5.18 hrs	Market notice	AEMO notified the market indicating that minimum required net injection at Iona CPP has been achieved by reducing controllable withdrawals for gas day 7 December 2020.
8 December 2020 11.41 hrs	Market notice	AEMO notified the market indicating a constraint had been applied to Iona CPP for gas day 10 December 2020 to achieve minimum required net injection by reducing controllable withdrawals for BCS outage.
8 December 2020 15.29 hrs	Market notice	AEMO notified the market indicating a constraint had been applied to Iona CPP for gas day 9 December 2020 to achieve minimum required net injection by reducing controllable withdrawals for BCS outage.
8 December 2020 22.20 hrs	Market notice	AEMO notified the market indicating that the constraint had been removed on controllable withdrawals at Iona CPP for gas day 9 December 2020 due to sufficient net injections for BCS outage.
9 December 2020 7.41 hrs	Market notice	AEMO notified the market indicating that the constraint had been removed on controllable withdrawals at Iona CPP for gas day 10 December 2020 due to sufficient net injections for BCS outage.
11 December 2020 16.18 hrs	BCS outage	AEMO notified the market indicating that APA returned BCS to service at 16.00 hrs on 11 December 2020.
14 December 2020 11.49 hrs	Market notice	AEMO notified the market that the threat to system security for BCS outage between 7 and 11 December 2020 had ended.