



Declared Wholesale Gas Market – Intervention Report

June 2020

Notice of threat to system security

A report into the notice of threat to system security issued on 3 June 2020

IMPORTANT NOTICE

Purpose

AEMO has prepared this report pursuant to rule 351 of the National Gas Rules, using information available as at 15 June 2020, unless otherwise specified.

Disclaimer

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1. Introduction

Following AEMO's threat to system security notice issued on 1 June 2020¹ a constraint was placed to prevent withdrawals at the Iona Close Proximity Point (CPP) due to ongoing Brooklyn Compressor Station (BCS)² unit outages. This constraint remained in effect following the notice that the threat to system security had ended for 1 June 2020. There were further market notices issued on 2 June 2020, regarding ongoing BCS unit outages and subsequent constraints applied.

On 3 June 2020, AEMO issued a new notice of a threat to system security in the Victorian Declared Wholesale Gas Market (DWGM) for gas day 4 June 2020, requiring 12.3 TJ of out-of-merit-order injections at the Iona Close Proximity Point. This notice was required to address a forecast supply/demand imbalance, caused by the BCS unit outages.

APA returned BCS Unit 11 to service at 18.00 hrs on 3 June 2020 and consequently AEMO issued a notice to advise the threat to system security had ended. There was no material impact on the market for either 3 or 4 June 2020.

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 29 May 2020 APA notified AEMO of a potential problem with Unit 11 of the BCS. Although APA indicated Unit 11 was available the preference was to run it last and prioritise the other available BCS units first. This notification was followed by a planned outage on 1 June 2020 of BCS Unit 9, and at around 14.00 hrs BCS Unit 12 came off due to an unplanned outage. This combination of outages restricted the southerly flow of gas on the South West Pipeline (SWP) requiring AEMO to place a constraint on Iona CPP withdrawals.

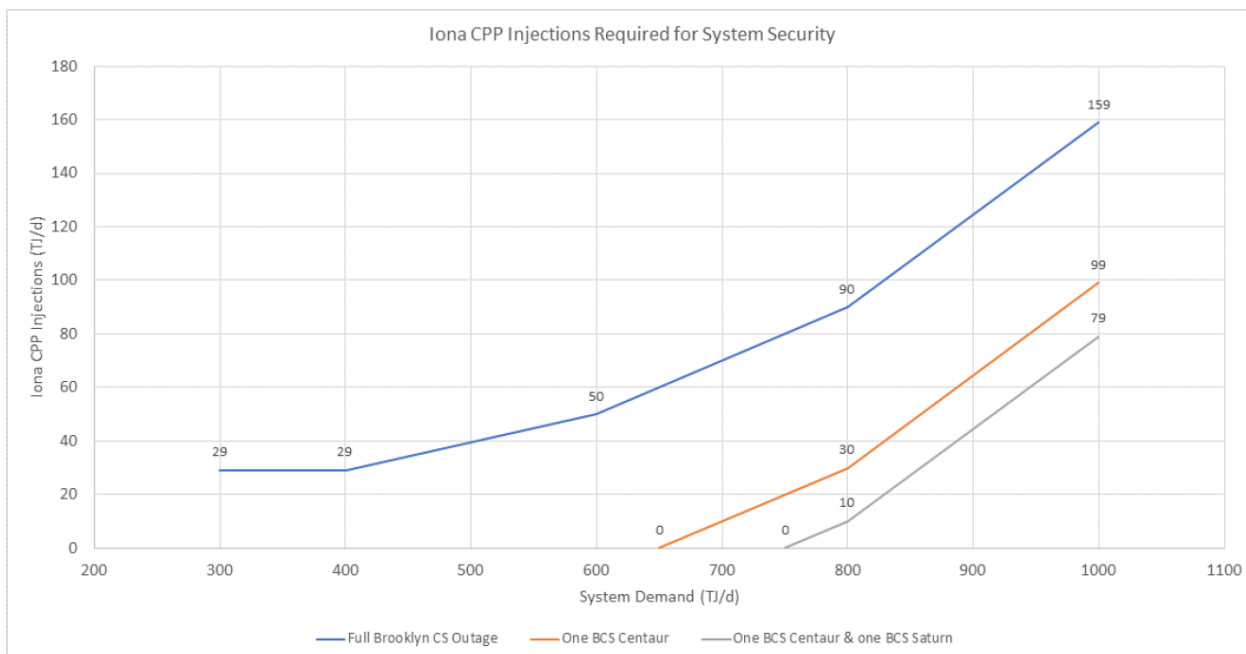
On 2 June 2020 AEMO notified the market that BCS Unit 11 and Unit 12 were both unavailable until further notice and that net injections from Iona CPP into the SWP may be required. To support this loss of capacity from BCS, AEMO notified the market that constraints would apply at Iona CPP in order to ensure sufficient supply to meet demand. AEMO indicated that these constraints could result in restrictions of net Iona CPP withdrawals or even that AEMO may schedule minimum injection quantities at the Iona CPP to ensure system security.

¹ AEMO. Declared Wholesale Gas Market – Intervention Report, 15 June 2020. Available at <https://aemo.com.au/-/media/files/gas/dwgm/2020/dwgm-er-20-002-1-jun-2020.pdf>

² Brooklyn Compressor Station (BCS) is used to provide compression to support demand in the Western Victoria area of the Declared Transmission System. BCS is made up of five units (Units 8, 9, 10, 11 and 12) permitting the station to operate in various combinations, and when BCS is on outage (as a result of one or more units being unavailable) this can lead to a localised issue that can be resolved by injecting additional gas or restricting withdrawals from the Iona Close Proximity Point.

The minimum Iona CPP injections required on any given gas day is variable and dependent on system demand, Gas-fired Power Generation (GPG) and the availability of compressors. Figure 1 provides an indication of the minimum gas injections required.

Figure 1 Minimum Port Campbell daily net injections required to meet system demand on the SWP



Further, AEMO notified the market that controllable withdrawal bids would only be scheduled if there were enough injection bids from Port Campbell or compression at BCS to support the withdrawal bids. However, if there were not enough injections scheduled or if compression was limited, controllable withdrawal bids would be restricted, and injection bids may need to be constrained on. AEMO also notified the market that any constraints, associated with the BCS outage, at the Iona CPP, would be lifted only on the completion of the BCS outages.

At 07.10 hrs on 3 June 2020, AEMO issued a notice of a threat to system security in the Victorian Declared Wholesale Gas Market (DWGM) for gas day 4 June 2020, requiring 12.3 TJ of out-of-merit-order injections at Iona CPP (the total scheduled injections at Iona CPP were 79 TJ). This notice was required due to forecast system demand for 4 June 2020 of 923 TJ and the continuing BCS unit outages. AEMO notified the market that an increase of supply from Iona CPP may alleviate the need to schedule out-of-merit-order gas and asked Market Participants to review their bids and offers.

Another AEMO notice was sent out at 15.10 hrs on 3 June 2020, reducing the out-of-merit-order gas injections to zero as a result of an updated schedule. This updated schedule included 84 TJ of injections at Iona CPP (all scheduled in merit order) and a forecast system demand for 4 June 2020 of 941 TJ.

On 3 June 2020 at 15.48 hrs APA returned BCS Unit 11 to service and at 16.44 hrs AEMO issued a notice indicating an end to the threat to system security and lifted the constraints at the Iona CPP.

No out-of-merit-order gas was scheduled on 4 June 2020.

A chronology of events is included in appendix A1.

3. Assessment of event

This event was a result of unplanned outages at BCS, resulting in a potential supply and demand imbalance due to insufficient net injections at Iona CPP.

A threat to system security was issued to:

- maintain system security for the South West Pipeline
- limit the risk of involuntary curtailment to customers, including the Laverton North Power Station
- support the out-of-merit-order injections scheduled

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 240 Uplift payments
- NGR 341 Notice of threat to system security
- NGR 351 Intervention Reports

3.1.1 Uplift payments

NGR 240 requires AEMO to allocate uplift payments so far as practicable to the cause of those uplift payments. This uplift payment may be attributable to the declared transmission system service provider (APA) where it has failed to fulfil its obligations under its service envelope agreement. In this event there were no uplift payments as a result of the notice of a threat to system security and as such no further investigation, for the purposes of this report, has been conducted with regards to the obligations of the declared transmission system service provider.

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 07.10 hrs on 3 June 2020. AEMO also issued market notices to indicate:

- constraints had been applied to Iona CPP to achieve minimum required net injection by profiling withdrawals and injections for Brooklyn CS outage;
- controllable withdrawal bids may be scheduled;
- 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.

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.

In this event, the issue was resolved by APA bringing BCS back to service.

AEMO finds that the NGR provisions are adequate and considers that in this case they were applied correctly.

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 Declared Transmission System (DTS) 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.

APA returned BCS to near-full service at 15.48 hrs on 3 June 2020 and AEMO issued a notice at 16.44 hrs, indicating that the threat to system security had ended.

3.3 Costs of intervention

While there were no direct costs associated in response to the notice of a threat to system security issued for gas day 4 June 2020, market participants may have been impacted by the BCS outages in the lost opportunity of being able to withdraw gas at Iona CPP.

4. Conclusion

AEMO issued a notice of a threat to system security in the Victorian DWGM on 3 June 2020 for gas day 4 June 2020 indicating out-of-merit-order Iona injections had been scheduled to maintain the system security at Iona. This notice was withdrawn later in the day once the Brooklyn Compressor Station had been partially returned to service. There was no direct cost impact on the market, however an indirect impact may have been experienced by market participants in not being able to schedule withdrawals at Iona Close Proximity Point.

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.

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

A1. Chronology

Date/Time (AEST)	Event/ Action	Details
29 May 2020 16.28 hrs	Brooklyn CS Outage	APA advise BCS Unit 11 is available but should be last in the running order of BCS units.
1 June 2020 07.45 hrs	Brooklyn CS Outage	APA given facility releases for BCS Unit 9 planned maintenance.
1 June 2020 14.05 hrs	APA request BCS outage	APA request BCS Unit 12 to be shut down for inspection, due to a suspected issue.
1 June 2020 14.30 hrs	APA contact AEMO	APA advised BCS Units 8 and 9 are available. Note: Unit 9 was returned to service from earlier maintenance
1 June 2020 17.29 hrs	AEMO contact APA	AEMO contacts APA to confirm BCS Unit 11 is available
1 June 2020 19.11 hrs	APA contact AEMO	APA request a test run of BCS Unit 11
1 June 2020 19.41 hrs	APA contact AEMO	APA advises AEMO that running BCS Unit 11 can be run as required, with a risk of further damage to the unit
2 June 2020 10.58 hrs	Brooklyn CS Outage	BCS Unit 11 tripped at 10.53 hrs and APA advised it is unavailable until further notice. BCS Unit 9 started running in place of BCS Unit 11.
2 June 2020 17.54 hrs	AEMO market notice	AEMO issued a market notice indicating BCS Units 11 and 12 unavailable until further notice. Participants were advised that SWP net injections may be required to maintain system security.
2 June 2020 21.33 hrs	AEMO market notice	AEMO issued a market notice indicating constraints were applied to Iona CPP for gas day 2 June 2020 to achieve minimum required net injection by reducing controllable withdrawals for the Brooklyn CS outage.
2 June 2020 22.25 hrs	AEMO market notice	AEMO issued a market notice indicating constraints were applied to Iona CPP for gas day 3 June 2020 to achieve minimum required net injection by reducing controllable withdrawals for the Brooklyn CS outage.
3 June 2020 07.10 hrs	AEMO market notice	AEMO issued a market notice indicating that 12.3 TJ of out-of-merit-order injections was scheduled (Day+1 schedule) at Iona CPP for gas day 4 June 2020 and that AEMO was seeking a market response to support the Brooklyn CS outage.
3 June 2020 15.10 hrs	AEMO market notice	AEMO issued a market notice indicating that out-of-merit-order injections have been removed at Iona CPP for gas day 4 June 2020. Threat to system security for the Brooklyn CS outage remains in effect.
3 June 2020 16.44 hrs	Brooklyn CS Outage	APA returned BCS 11 to service at 18.00 hrs on 3 June 2020. Threat to system security for Brooklyn CS outage ended.