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# Declared Wholesale Gas Market – Intervention Report

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**June 2019**

## Notice of threat to system security

A report into the notice of threat to system security issued on 29 May 2019

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# IMPORTANT NOTICE

## **Purpose**

AEMO has prepared this report pursuant to rule 351 of the National Gas Rules, using information available as at 7 June 2019, unless otherwise specified.

## **Disclaimer**

AEMO has made every effort to ensure the quality of the information in this report but cannot guarantee its accuracy or completeness. Any views expressed in this report are those of AEMO unless otherwise stated, and may be based on information given to AEMO by other persons.

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# 1. Introduction

AEMO issued a notice of a threat to system security in the Victorian Declared Wholesale Gas Market (DWGM) for gas day 29 May 2019.

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:

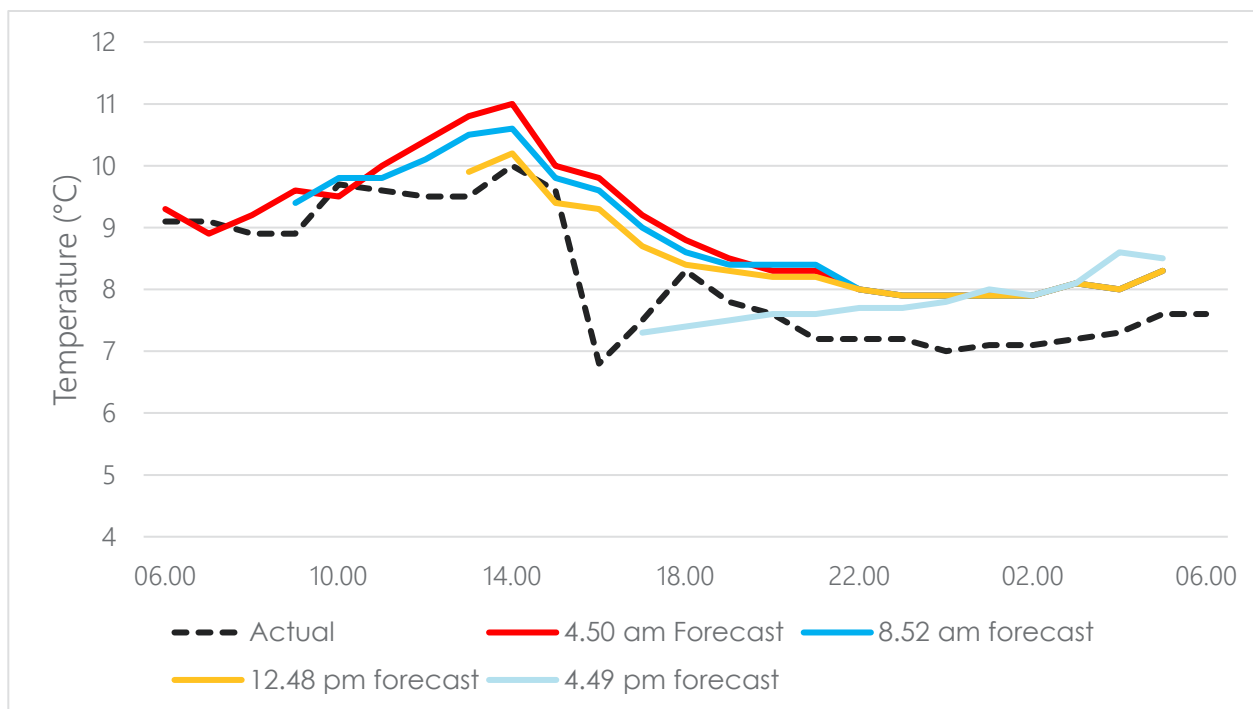
- the adequacy of the provisions of the NGR relevant to the event or events;
- the appropriateness of actions taken by AEMO in relation to the event or events; and
- the costs incurred by AEMO and Registered participants as a consequence of responding to the event or events.

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

## 2. Event Summary

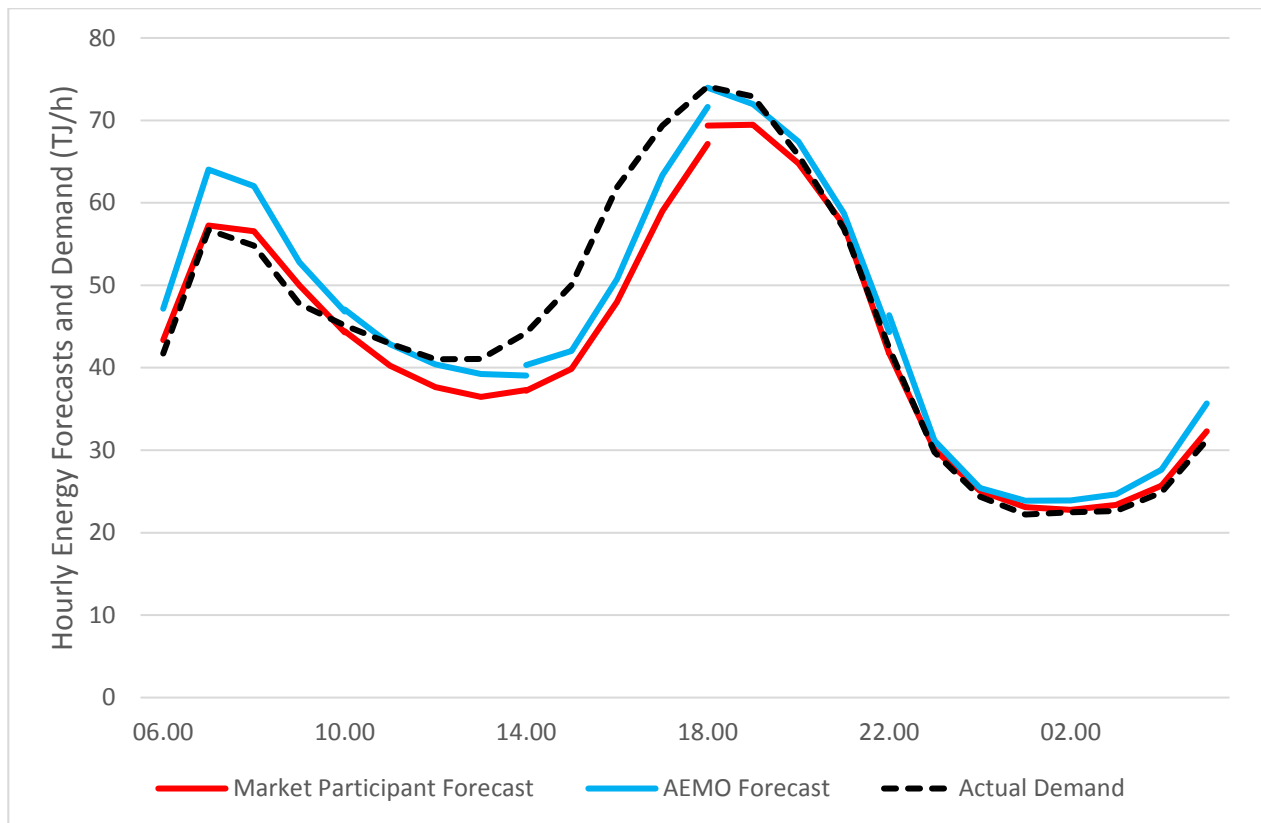
Cold temperatures had been forecast for Victoria on 29 May 2019, with a maximum of 11°C in Melbourne and 7°C in Ballarat. Between 13.30 hrs and 15.30 hrs a strong band of rain and hail passed over greater Melbourne resulting in a temperature drop of ~3°C. This temperature change had not been forecast, refer Figure 1.

Figure 1: Weatherzone forecast temperatures compared with actual temperature



As a result, the demand increased earlier than anticipated. Both Market Participant and AEMO's forecasts, showed that between 14.00 hrs and 18.00 hrs system demand exceeded forecast demand, as shown in Figure 2.

Figure 2: Comparison of forecast system demand and actual system demand<sup>1</sup>



As the 6.00 pm scheduling interval approached, AEMO continued to monitor the demand including the potential for Gas-fired Power Generation (GPG) to be scheduled.

By 17.10 hrs AEMO's forecast showed the evening peak could reach a maximum of 74 or 78 TJ/h. Models incorporating both peak demand scenarios indicated that the system pressures could be maintained at 74 TJ/h but at 78TJ/h there would be a breach at Dandenong City Gate (DCG) Inlet.

The unavailability of Euroa Compressor Station<sup>2</sup> resulted in approximately 10-15 TJ of gas that could not be shifted south towards the Longford to Melbourne Pipeline, had this been available it is possible a peak demand of 78 TJ/h could have been achieved.

AEMO notified the market of a threat to system security at 17.37 hrs. To avoid breaching system pressures, AEMO intervened and scheduled 12 TJ of LNG in the 6.00 pm to 10.00 pm scheduling interval. The total demand on 29 May 2019 was 1,095 TJ.

A chronology of events is included in appendix A1.

### 3. Assessment of event

This event was caused by high system demand because of colder than forecast temperatures.

The decision to issue a threat to system security was made for the following reasons:

<sup>1</sup> The forecast data is the latest forecast for the next four hours at each scheduling interval except for the 10.00 pm schedule which covers the last eight hours of the gas day.

<sup>2</sup> Euroa Compressor Station had been on unplanned outage from 16 May 2019 due to a mechanical failure.

- The uncertain weather patterns that had impacted temperature forecasts, had caused changes to the demand scheduling during the day and impacted the evening peak
- The evening peak was occurring earlier than had been anticipated
- Limited availability of additional supply for any additional GPG demand above what had been forecast

### 3.1 Adequacy of Part 19 of the NGR

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

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

#### 3.1.1 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.

At 17.37 hrs AEMO notified the market of 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. The Dandenong LNG facility had been notified earlier in the day that there was a possibility of LNG being scheduled and received the final notification at 17.35 hrs to inject in response to 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 the potential pressure breach at DCG Inlet. This could be resolved by scheduling out-of-merit-order (injection bids above the market price) gas from Dandenong LNG<sup>3</sup>. This is gas that has already been bid into the market. In this assessment of the NGR provisions (specifically NGR 213, 214 and 215) AEMO notes that it may be within the current Rules for AEMO to constrain on gas that has already been bid in 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, however, AEMO considers that further review and consultation should be undertaken with regards to:

- The need to issue a threat to system security to constrain on gas that has already been bid into the market

Subject to further consideration of the NGR provisions, on initial assessment, this would require minor changes to the following AEMO Market Procedures:

- Wholesale Market System Security Procedures (Victoria)
- Wholesale Market Gas Scheduling Procedures (Victoria)

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<sup>3</sup> The bids at Dandenong LNG are scheduled in merit order, however, they are not in merit order when considering the market-wide bids.

### 3.1.2 Intervention Report Timing

NGR 351 places an obligation on AEMO to publish an Intervention Report within 10 business days after the event. AEMO has previously raised this as concern given the limited time this placed on AEMO to conduct a thorough investigation, given the requirement to assess:

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

AEMO has reviewed this and AEMO intends to adopt 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 Gas Powered Generation;
- Alleviate the threat to system security and return the DTS to normal operating conditions.

NGR 206 requires that AEMO schedule injections into and withdrawals from the DTS in accordance with bids and must:

- Comply with the gas scheduling procedures; and
- Use its reasonable endeavours to operate within the system security procedures.

In this event, AEMO took all reasonable steps to assess the forecasts and notify the market accordingly. The changing weather patterns and colder than expected forecast in the afternoon of 29 May 2019 resulted in higher than expected demand prior to the evening peak. AEMO's forecasts throughout the day considered the changing weather patterns and were consistently more accurate, than Market Participants, in forecasting the total daily demand. AEMO used demand forecast overrides given the under-forecasting from Market Participants, which was an appropriate outcome.

AEMO did not request a market response as Market Participants would not have been able to respond given the timing of issuing the notice of a threat to system security. Following the change in weather in the early afternoon, AEMO was aware that Market Participants forecasts were tracking behind actual demand, and it may have been appropriate for AEMO to notify the market to review forecasts for the remainder of the day.

AEMO successfully produced a 6.00 pm schedule and maintained system security through the scheduling of out-of-merit-order gas from Dandenong LNG.

### 3.3 Costs of intervention

In response to the notice of a threat to system security issued for gas day 29 May 2019, AEMO scheduled 12 TJ of out-of-merit-order Dandenong LNG injections. This was consistent with the approach outlined in the market notices issued to Market Participants.

The market impact resulting from this event was in the form of additional ancillary payments, and corresponding uplift payments, of \$33,267.

## 4. Conclusion

AEMO issued a notice of threat to system security in the Victorian DWGM for gas day 29 May 2019. AEMO scheduled 12 TJ of out-of-merit-order LNG injections at the 6.00 pm schedule.

This resulted in \$33,267 of additional ancillary and uplift payments.

AEMO has assessed the application and adequacy of associated NGR provisions and finds that these provisions were applied correctly.

AEMO has highlighted several provisions within the Rules where further review could be conducted to change the way AEMO operates in these events into the future. AEMO intends to raise these issues with the Gas Wholesale Consultative Forum.

Please direct any feedback or questions regarding this report to [GasMarket.Monitoring@aemo.com.au](mailto:GasMarket.Monitoring@aemo.com.au).



# A1. Chronology

Date/Time (AEST)	Event/ Action	Details
29 May 2019 14.00 hrs	Change in weather relative to forecast	Colder than expected weather results in higher demand relative to forecast.
29 May 2019 17.01 hrs	AEMO forecast	Demand forecast override of 53 TJ applied. Forecasting models analysed with and without LNG injections.
29 May 2019 17.10 hrs	AEMO forecast	Modelling of the peak demand indicates evening peak could reach a maximum of either 74 or 78 TJ/h. Modelling indicates a potential breach of DCG Inlet pressure.
29 May 2019 17.35 hrs	AEMO contact APA	AEMO advise APA that 12 TJ LNG (3TJ/h) is being scheduled.
29 May 2019 17.37 hrs	Market Notice issued	AEMO issues notice of a threat to system security, indicating 12 TJ of LNG was to be injected in the 6.00 to 10.00 pm scheduling interval.
29 May 2019 21:40 hrs	Market Notice issued.	Threat to system security has ended, and constraint removed for the 10.00 pm schedule.