

# DWGM EVENT – INTERVENTION REPORT – 3 AUGUST 2017

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FINAL

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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 8 August 2017, unless otherwise specified.

## Disclaimer

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## 1 Introduction

The Australian Energy Market Operator (AEMO) issued a notice of a threat to system security in the Victorian Declared Wholesale Gas Market (DWGM) for gas day 3 August 2017 during an unplanned outage of the Dandenong LNG facility.

Clause 351(1)(b) 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. Clause 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 addresses each of these requirements and is published in accordance with clause 351(2) of the NGR.

## 2 Background

On 1 August 2017, APA VTS (APA) advised AEMO that the Dandenong LNG storage (LNG) facility would not be available, as a market response supply source, due to an unplanned outage. It was also advised that the LNG facility would be made available in the event of a threat to system security. Initial estimates were that repairs would take between 24 and 48 hours.

APA provided an update on 2 August indicating the LNG facility would return to full operation on 8 August. Based on the supply/demand information available at the time there was no indication that LNG would be required for 2 or 3 August.

On 3 August 2017, AEMO observed the following key factors throughout the gas day:

- Low Beginning-of-Day line-pack, approximately 9 TJ below the line-pack target;
- Initial weather forecast was expected to have a maximum of 11°C, however a maximum of only 9°C was reached, which was the lowest maximum temperature for Melbourne in 22 years;
- 1,178 TJ of demand<sup>1</sup> was forecast at the 6:00 am schedule, increasing to a forecast of 1,214 TJ at the 2:00 pm schedule, as a result of cold weather and high utilisation of gas powered generation.

It should also be noted that AEMO were in contact with APA early in the day as a precautionary measure to ensure the LNG facility could be made available in the case of a threat to system security.

At 4:26 pm on 3 August 2017, AEMO issued a system wide notice of a threat to system security, impacting on the total system, due to:

- Gas supply sources being incapable of meeting forecast gas demand;
- A supply and demand imbalance existing such that the projected pressure at Dandenong City Gate may breach the minimum operating pressure of 3,300 kPa;
- There being insufficient time for the market to coordinate a response to the threat and that a response in the next operating schedule was required.

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<sup>1</sup> Demand refers to uncontrollable volumes only

The action undertaken by AEMO, in order to alleviate this threat, was to schedule gas injections from the LNG facility to obtain a total net daily injection quantity of 17.9 TJ prior to 11 pm to satisfy evening peak demand. The threat to system security was expected to start at 6:00 pm 3 August 2017 and end at 11:00 pm 3 August 2017.

A subsequent system wide notice was issued at 9:38 pm on 3 August indicating the threat to system security had ended.

### 3 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;
- Alleviate the threat to system security and return the Declared Transmission System (DTS) to normal operating conditions.

#### 3.1 Out-of-merit-order injections

In response to the threat to system security on 3 August, AEMO scheduled the minimum required net injection at the LNG System Injection Point (SIP), which were all out-of-merit-order injections (above market price).

The table below provides a summary of the demand forecasts, actual uncontrollable demand and out-of-merit-order injections at the LNG SIP for 3 August.

03-August-2017	6AM Schedule	10AM Schedule	2PM Schedule	6PM Schedule	10PM Schedule
Market Participants demand forecast (TJ)	1145	1166	1189	1205	1205
AEMO's demand forecast (TJ)	1177	1179	1214	1229	1225
Actual Demand (TJ)	1177	1187	1227	1233	1225
Out-of-merit-order injection at LNG SIP (TJ)	N/A	N/A	N/A	17.9	17.9

The out-of-merit-order injection quantities were only required for the 6:00 pm scheduling interval, and the DTS was restored to normal operations at 9:11 pm when APA ceased LNG injections into the DTS after confirming with AEMO that further injections of LNG would not be required.

AEMO is not aware of any interruptions to gas supply on the day. All gas pressures in the DTS remained above contractually agreed minimum levels.

### 4 Costs of event

#### 4.1 Total Ancillary Payments and Uplift Payments

The market impact resulting from the threat to system security is in the form of ancillary payments (AP) and corresponding uplift payments.

The table below lists these payments by type for 3 August 2017.

Gas Day	Ancillary Payments	Congestion Uplift Payments	Surprise Uplift Payments	Common Uplift Payments
03-August-2017	\$10,676	\$1,026	\$9,650	\$0

The results can be summarised as follows:

- Uplift payments were categorised as approximately 90% surprise uplift, 10% congestion uplift, and 0% common uplift. The categories are applied as follows:
  - Congestion uplift is allocated to Market Participants where their daily profiled demand forecasts and scheduled controllable withdrawal quantities exceed their AMIQ (profiled uplift hedge);
  - Surprise uplift is allocated to Market Participants who were deemed to have worsened the constraint at reschedules. For example, this can occur when participants under-inject or over-withdraw in the preceding schedule (for positive APs);
  - Common uplift is any remaining uplift that cannot be allocated as congestion or surprise uplift, and is applied across Market Participants in proportion to their actual withdrawal quantities over a gas day.

## 5 Adequacy of Part 19 of the NGR

In respect of this event, AEMO has assessed the application and adequacy of NGR provisions relating to market notices.

### 5.1 Market notices

NGR 341(1) requires that when AEMO identifies a potential threat to system security, it must notify registered participants as soon as practicable – including details of the nature and location of the potential threat, and AEMO's estimate about whether intervention will be required.

In this case, AEMO issued a market notice prior to bid cut-off on 3 August 2017 when out-of-merit-order injections were scheduled at LNG SIP due to the threat to system security, and when the threat had subsided.

AEMO finds that these NGR provisions are adequate, and were applied correctly in this case.

## 6 Conclusion

AEMO issued a notice indicating a threat to system security in the Victorian DWGM for gas day 3 August 2017 due to a high forecast demand, continuous under-forecasting of demand by Market Participants relative to the actual demand across the gas day, and the inability of market response injections from LNG SIP (or any other SIP) to meet the demand.

On this gas day, AEMO scheduled out-of-merit-order injections at the 6:00 pm schedule. This resulted in approximately \$10,676 of ancillary and uplift payments.

Following this event, 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](mailto:GasMarket.Monitoring@aemo.com.au).