

### NEM Lack of Reserve Framework Report 1 July 2021 to 30 September 2021

### October 2021

A report for the National Electricity Market on the operation of the Lack of Reserve Framework

# Important notice

### PURPOSE

AEMO has prepared this document under clause 4.8.4B of the National Electricity Rules to report on the operation of the NEM Lack of Reserve Framework for the period 1 July 2021 to 30 September 2021.

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VERSION	CONTROL
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Version	Release date	Changes
1	29 October 2021	Initial version

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## **Executive summary**

This report has been published in accordance with clause 4.8.4B of the National Electricity Rules (NER).

In the reporting period 1 July 2021 to 30 September 2021 (Quarter 3 2021), AEMO declared 69 Lack of Reserve (LOR) conditions in the National Electricity Market (NEM)<sup>1</sup>:

- There were 28 forecast LOR1 conditions.
- There were 21 forecast LOR2 conditions.
- There were 16 actual LOR1 conditions.
- There were four actual LOR2 conditions.

This compares with 73 LOR conditions declared in the previous reporting period (Quarter 2 2021), and 11 LOR conditions declared for the same period last year (Quarter 3 2020)<sup>2</sup>.

Quarter 3 2021 covered the mid-to late winter months and the first month of spring. The LOR declarations in this quarter are mainly due to decreased generation availability, short notice outages and unplanned power system events.

- Four of the actual LOR conditions were unanticipated, occurring with no prior forecast following power system incidents and unplanned network or forced generator outages.
- Many of the forecast LOR conditions did not eventuate into actual LOR conditions mainly due to market response in the form of increased generation availability.
- The LOR conditions in New South Wales and Queensland were driven by reduced net import and decreased generation availability.
  - In particular, on 22 July 2021, the reserve conditions in NSW were impacted due to the reclassification of multiple generating units setting a much higher LOR reserve requirement.
- The LOR conditions in South Australia were mainly due to decreased generation availability and reduced net import.
- The LOR conditions in Tasmania were due to decreased generation availability.

Of the 69 LOR declarations in Quarter 3 2021:

- For 44 declarations, the reserve requirement was set by the sum of the two Largest Credible Risks (LCR2, for LOR1 thresholds). There were 10 declarations where the reserve requirement was set by the Largest Credible Risk (LCR, for LOR2 thresholds). There were 15 declarations where the reserve requirement was set by the Forecast Uncertainty Measurement (FUM).
- This means 20% of LOR conditions were declared when the reserve requirement was being set by the FUM. For comparison, in Quarter 2 2021, 17 of the 73 LOR declarations were set by the FUM (23%), and in Quarter 3 2020, one of the 11 LOR declarations was set by the FUM (9%).

The next report on the NEM Lack of Reserve Framework, for the reporting period 1 October 2021 to 31 December 2021, will be published by 31 January 2022.

<sup>&</sup>lt;sup>1</sup> Forecast or actual LOR1, LOR2, or LOR3. LOR is described in clause 4.8.4 of the NER. AEMO's considerations and methodology, and the LOR levels, are outlined in AEMO's Reserve Level Declaration Guidelines, at <a href="https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation">https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation</a>.

<sup>&</sup>lt;sup>2</sup> In Quarter 2 2021, the declared LOR conditions were 24 forecast LOR1 conditions, 18 forecast LOR2 conditions, 28 actual LOR1 conditions, two actual LOR2 conditions and one forecast LOR3 condition; in Quarter 3 2020 the declared LOR condition were six forecast LOR1 conditions, one forecast LOR2 condition and four actual LOR1 conditions. Previous quarterly reports are on AEMO's website at <a href="https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/system-operation/nem-lack-of-reserve-framework-quarterly-reports">https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/system-operation/nem-lack-of-reserve-framework-quarterly-reports</a>.

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# 1. Introduction

This report has been published in accordance with clause 4.8.4B of the National Electricity Rules (NER), to provide a high-level analysis of how the Lack of Reserve (LOR) framework is operating. This report covers the period from 1 July 2021 to 30 September 2021 (Quarter 3 2021).

Unless otherwise noted, all times in this report are National Electricity Market (NEM) time (Australian Eastern Standard Time [AEST]).

The report is divided into three sections:

**Reserve Level Declaration Guidelines** – a summary of changes to the Guidelines over the past quarter, and the retraining of the Bayesian Belief Network (BBN).

**LOR conditions declared** – details of all LOR conditions declared or revised during the past quarter (based on market notices). For each condition declared, the report indicates the required reserve level and whether the requirement was set by the Forecast Uncertainty Measure (FUM), or the largest credible risk/s (LCR) in the region. The reserve requirement can be set by the largest credible risk (LCR, for LOR2 conditions) or the sum of the two largest credible risks (LCR2, for LOR1 thresholds). The FUM value for each relevant period is also provided.

**Review of performance** – a review of the performance of the LOR framework and any observed trends, providing an assessment of FUM values compared to previous quarters, determinants of reserve level requirements, number of LOR declarations, and leading factors or causes of LOR declarations.

Please direct all LOR inquiries to <u>www.aemo.com.au/Contact-us</u>. In the inquiry form field '*What is your enquiry regarding?*', write "LOR Framework Report".

The next report on the NEM Lack of Reserve Framework, for the reporting period 1 October 2021 to 31 December 2021, will be published by 31 January 2022.

## 2. Reserve Level Declaration Guidelines

### 2.1 Changes in the reporting period

During the reporting period, there were no changes to the Guidelines<sup>3</sup>.

### 2.2 Retraining of the Bayesian Belief Network

The BBN is the algorithm which determines the FUM, which in turn can determine LOR levels. This process is summarised in the Guidelines. The intention of retraining the BBN is to update the network to include recent historical data since the last retraining. AEMO commenced the retraining in October 2021 to include data up to 30 September 2021. The retraining involves a three-stage process:

- 1. Extract-Transform-Load (ETL) stage, to extract historical data up to 30 September 2021, perform data validation and cleansing, and compile the data into the structured format required to incorporate into the network.
- 2. Analysis and modelling stage, to update the network and compile the network nodes.
- 3. Test and verification stage, to ensure the retrained network is suitable for production implementation.

AEMO is in the final stage of retraining, and plans to implement the retrained BBN into production around the end of October 2021, pending final verification and readiness checks in the pre-production environment.

### 2.2.1 Results from retraining

To verify the retraining, AEMO completed a backcast of all forecast intervals from July 2020 to June 2021, inclusive, using the existing BBN and the retrained BBN. The intention of the backcast is to provide an indication of the magnitude of changes to future maximum, minimum, and mean FUM values.

Changes in maximum and minimum FUM values between the existing and retrained BBN backcasts are common, as these are sensitive to unique events and limited sample sizes during the retraining quarter. These changes are listed below. Large differences in mean FUM values indicate a sustained change in uncertainty for a particular forecast horizon. Where material changes in the mean FUM have been identified, these have been investigated and investigation results summarised below. Minor changes were identified for some other forecast horizons and distribution statistics but are not listed here.

- New South Wales maximum FUM values decreased by 24 megawatts (MW), 47 MW, and 57 MW for the 4 hours ahead, 12 hours ahead, and 24 hours ahead forecast horizons, respectively. Mean FUM values and minimum FUM values were relatively unchanged.
- Queensland maximum FUM values decreased by 40 MW for the 24 hours ahead forecast horizon and increased by 24 MW for the 120 hours ahead forecast horizon. Mean FUM values decreased by 12 MW and 9 MW for the 48 hours ahead and 120 hours ahead forecast horizons, respectively. Minimum FUM values were relatively unchanged.
- South Australia maximum FUM values decreased by 48 MW for the 4 hours ahead forecast horizon and increased by 59 MW, 33 MW, and 248 MW for the 12 hours ahead, 24 hours ahead, and 120 hours ahead forecast horizons, respectively. As noted above, material changes in maximum FUM values can occur due

<sup>&</sup>lt;sup>3</sup> The Guidelines are at <u>http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation</u>.

to limited sample sizes in the tails of the distribution. Mean and minimum FUM values increased by 31 MW and 22 MW, respectively, for the 120 hours ahead forecast horizon.

- Tasmania maximum FUM values decreased by 22 MW and 12 MW for the 12 hours ahead and 24 hours ahead forecast horizons, respectively. Mean FUM values increased by 4 MW for the 4 hours ahead forecast horizon and decreased by 6 MW for the 12 hours ahead forecast horizon. Minimum FUM values increased by 16 MW for the 12 hours ahead forecast horizon.
- Victoria maximum FUM values increased by 47 MW for the 24 hours ahead forecast horizon and decreased by 36 MW, 34 MW, and 65 MW for the 4 hours ahead, 12 hours ahead, and 120 hours ahead forecast horizons, respectively. Mean and minimum FUM values were relatively unchanged.

## 3. Lack of Reserve conditions declared

Table 1 provides a high-level summary of the counts of forecast and actual LOR conditions based on the declaration count principles.

Table 2 lists all market notice declarations of forecast and actual LOR conditions over the reporting period 1 July 2021 to 30 September 2021. Table 2 also identifies the market notices that communicated updates to, and cancellation of, either forecast or actual LOR conditions.

#### **Declaration count principles**

For the reporting period, AEMO determined the total count for LOR conditions based on the following principles:

- All market notices making the initial declaration of a forecast or actual LOR condition with an effective date during the reporting period were counted.
- Any market notices which updated previously issued forecast or actual LORs for a given effective date (in relation to the reserve requirement, reserve capacity available, or effective period) were not counted, to prevent double-counting of a continuing condition.
- In cases where forecast LORs were cancelled but subsequently re-issued with approximately the same effective period, re-issues were not counted, to prevent double-counting of effective periods.
- Updates to existing LOR conditions where the LOR level changed were counted as separate LOR conditions.
- Any forecast LORs which were subsequently declared as actual LORs at the same LOR level were counted once. In Table 2, these are shown as actual conditions only. For example:
  - Where a forecast LOR1 was issued and later an actual LOR1 was declared for a similar period, only the actual LOR1 was counted.
  - If the initial forecast was for a forecast LOR2 condition and this was later declared as an actual LOR1, this would be counted as two LOR conditions, due to the differing LOR levels.

Effective	Region	LC	OR1	LC	OR2	L	OR3	Orman and anoth Kar
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
01/07/2021	NSW	1						A forecast LOR1 condition was declared with an effective period of 17:00 - 18:30 (2 hour lead time <sup>4</sup> ) due to reduced net import and slight increase in forecast demand. An actual LOR1 was later declared due to reduced net import, decreased generation availability and slight increase in demand. Actual conditions existed from 17:30 - 18:00.
05/07/2021	NSW	1						<ul> <li>A forecast LOR1 condition was declared with an effective period of 18:00 - 18:30</li> <li>(28 hour lead time) due to reduced net import and decreased generation availability.</li> <li>The forecast LOR1 condition was cancelled due to increased net import.</li> <li>A forecast LOR1 condition was later redeclared with an effective period of 18:00 - 18:30 (13 hour lead time) due to reduced net import and slight increase in forecast demand.</li> <li>An actual LOR1 was later declared due to reduced net import, decreased generation availability and increase in demand. Actual conditions existed from 17:30 - 18:00.</li> </ul>
06/07/2021	NSW	1		1				<ul> <li>A forecast LOR1 condition was declared with an effective period of 17:30 - 18:30 (28 hour lead time) due to reduced net import.</li> <li>The forecast LOR1 condition was cancelled due to a decrease in forecast demand.</li> <li>A forecast LOR1 condition was later redeclared with an effective period of 17:30 - 19:30 (2 hour lead time) due to decreased generation availability and reduced net import.</li> <li>An actual LOR2 was later declared due to an increase in demand, reduced net import and decreased generation availability. Actual conditions existed from 17:30 - 18:00.</li> <li>An update to the forecast LOR1 condition was issued with an effective period of 18:30 - 20:00 (1 hour lead time). The forecast reserve condition worsened due to an increase in forecast demand, reduced net import and decreased generation availability.</li> <li>The actual LOR2 condition was downgraded to an actual LOR1 condition with an effective period of 18:00 - 20:00 due to decrease in demand and increased generation availability.</li> </ul>
07/07/2021	NSW	1						A forecast LOR1 condition was declared with an effective period of 18:30 - 19:00 (12 hour lead time) due to reduced net import and slight increase in forecast demand.

#### Table 1 Summary of forecast and actual LOR conditions, with causing factors

<sup>&</sup>lt;sup>4</sup> Lead time: The amount of warning time, from when a forecast LOR condition was first declared (Market Notice issued) to the start time of the LOR effective period.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								The forecast LOR1 condition was cancelled due to increased net import.
								A forecast LOR1 condition was later redeclared with an effective period of 17:30 - 19:00 (1 hour lead time) due to decreased generation availability.
								An actual LOR1 was later declared due to an increase in demand and reduced net import. Actual conditions existed from 17:30 - 19:00.
12/07/2021	NSW	1	1		1			Morning Peak Demand:
								A forecast LOR2 condition was declared for the morning peak with an effective period of 07:30 - 08:30 (47 hour lead time) due to reduced net import.
								The forecast LOR2 condition was cancelled due to a decrease in the FUM and increased generation availability.
								A forecast LOR1 condition was declared for the morning peak with an effective period of 07:30 - 08:30 (10 hour lead time) due to reduced net import and slight increase in forecast demand.
								A couple of updates to the forecast LOR1 condition were issued with the same effective period of 07:30 - 08:30 (9 hour lead time and 4 hour lead time respectively). The forecast reserve condition worsened due to reduced net import and increase in forecast demand.
								The forecast LOR1 condition was cancelled due to increased net import, increased generation availability and slight decrease in forecast demand.
								Evening Peak Demand:
								A forecast LOR1 condition was declared for the evening peak with an effective period of 18:00 - 19:00 (8 hour lead time) due to decreased generation availability and slight increase in forecast demand.
								An update to the forecast LOR1 condition was issued with the same effective period of 18:00 - 19:00 (3 hour lead time). The forecast reserve condition worsened due to reduced net import and decreased generation availability.
								An actual LOR1 was later declared due to reduced net import, decreased generation availability and increase in demand. Actual conditions existed from 17:00 - 18:30.
14/07/2021	NSW	3						Morning Peak Demand:
								A forecast LOR1 condition was declared for the morning peak with an effective period of 08:00 - 09:00 (2 hour lead time) due to decreased generation availability.

Effective	Region	LOR1		LOR2		L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								The forecast LOR1 condition was cancelled due to a decrease in forecast demand.
								An actual LOR1 was later declared due to reduced net import. Actual conditions existed from 08:00 - 09:00.
								An update to the actual LOR1 condition was issued with an extended effective period due to increase in demand, reduced net import and decreased generation availability. Actual conditions existed from 08:00 - 10:30.
								Another actual LOR1 was declared due to reduced net import and increase in demand. Actual conditions existed from 12:30 - 13:00.
								Evening Peak Demand:
								An actual LOR1 was later declared for the evening peak due to decreased generation availability, reduced net import and increase in demand. Actual conditions existed from 17:30 - 18:30.
19/07/2021	NSW	1	1		2			Morning Peak Demand:
								A forecast LOR1 condition was declared for the morning peak with an effective period of 07:30 - 08:00 (3 day lead time) due to decreased generation availability and increase in forecast demand.
								Another forecast LOR1 condition was declared for the morning peak with an effective period of 07:00 - 07:30 (18 hour lead time) due to decreased generation availability.
								A forecast LOR1 condition was later declared for the morning peak with an effective period of 09:00 - 10:00 (20 hour lead time) due to reduced net import.
								Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast reserve condition worsened or improved due to the fluctuation of generation availability, forecast demand and net import.
								An actual LOR1 was declared for the morning peak due to decreased generation availability. Actual conditions existed from 08:00 - 09:00.
								A forecast LOR2 condition was declared for the morning peak with an effective period of 08:00 - 08:30 (3 day lead time) due to decreased generation availability and increase in forecast demand.
								An update to the forecast LOR2 condition was issued for the morning peak with an effective period of 07:30 - 08:30 (48 hour lead time). The forecast reserve level improved due to increased generation availability and decrease in forecast demand.

Effective	Region	LC	OR1	LC	DR2	L	OR3	Constant and the definition
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Several updates to the forecast LOR2 condition were issued with similar effective periods. The forecast reserve condition worsened or improved due to the fluctuation of generation availability, forecast demand and net import.
								The forecast LOR2 condition was cancelled due to increased net import and decrease in forecast demand.
								Evening Peak Demand:
								A forecast LOR1 condition was declared for the evening peak with an effective period of 18:00 - 19:00 (6 day lead time) due to an increase in forecast demand.
								Another forecast LOR1 condition was declared for the evening peak with an effective period of 20:30 - 21:00 (32 hour lead time) due to decreased generation availability.
								Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast reserve condition worsened or improved due to the fluctuation of generation availability, forecast demand and net import.
								A forecast LOR2 condition was declared with an effective period of 18:00 - 18:30 (5 day lead time) due to decreased generation availability and slight increase in forecast demand.
								The forecast LOR2 condition was cancelled due to increased net import and decrease in forecast demand.
								A forecast LOR2 condition was later redeclared with an effective period of 18:00 - 19:00 (5 day lead time) due to decreased generation availability and slight increase in forecast demand.
								Several updates to the forecast LOR2 condition were issued with similar effective periods. The forecast reserve condition worsened or improved due to the fluctuation of generation availability, forecast demand and net import.
								The forecast LOR1 was cancelled (4 hour lead time) due to increased generation and import availability.
								The forecast LOR2 condition was cancelled due to increased generation availability.
20/07/2021	NSW		1		1			A forecast LOR2 condition was declared with an effective period of 18:00 - 19:00 (6 day lead time) due to decreased generation availability, increase in forecast demand and reduced net import.
								A forecast LOR1 condition was declared with an effective period of 17:00 - 17:30 (6 day lead time) due to decreased generation availability, slight increase in forecast demand and reduced net import.

Effective	Region	LOR1		LC	OR2	LOR3		
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Another forecast LOR1 condition was declared with an effective period of 19:30 - 21:00 (6 day lead time) due to decreased generation availability, slight increase in forecast demand and reduced net import.
								An update to the forecast LOR1 condition was issued with an effective period of 17:30 - 20:00 (5 day lead time). The forecast LOR1 condition improved due to increased generation availability and decrease in forecast demand.
								The forecast LOR2 condition was cancelled due to a decrease in forecast demand.
								An update to the forecast LOR1 condition was issued with an effective period of 17:30 - 20:00 (4 day lead time). The forecast LOR1 condition worsened due to an increase in forecast demand.
								A forecast LOR2 condition was redeclared with an effective period of 17:30 - 19:30 (3 day lead time) due to reduced net import and slight increase in forecast demand.
								An update to the forecast LOR2 condition was issued with an extended effective period of 17:30 - 20:00 (3 day lead time). The forecast LOR2 condition worsened due to decreased generation availability.
								Another update to the forecast LOR2 condition was issued with the same effective period of 17:30 - 20:00 (52 hour lead time). The forecast LOR2 condition worsened due to an increase in forecast demand and reduced net import.
								An update to the forecast LOR2 condition was issued with an effective period of 18:00 - 19:00 (44 hour lead time). The forecast LOR2 condition improved due to a decrease in forecast demand and increased net import.
								The forecast LOR2 was cancelled (31 hour lead time) due to increased generation and import availability.
								The forecast LOR1 was cancelled (26 hour lead time) due to increased generation and import availability.
21/07/2021	NSW	1		1				A forecast LOR1 condition was declared with an effective period of 17:30 - 20:00 (6 day lead time) due to decreased generation availability and reduced net import.
								A forecast LOR2 condition was declared with an effective period of 18:00 - 19:00 (6 day lead time) due to reduced net import and slight increase in forecast demand.
								The forecast LOR2 condition was cancelled due to increased net import, increased generation availability and decrease in forecast demand.

Effective	Region	LOR1		LOR2		L	OR3	Constant and the shall be
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								An update to the forecast LOR1 condition was issued with an effective period of 18:00 - 19:00 (5 day lead time). The forecast LOR1 condition improved due to increased generation availability.
								Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition worsened due to reduced net import, decreased generation availability and increase in forecast demand.
								A forecast LOR2 condition was redeclared with an effective period of 18:00 - 19:00 (4 day lead time) due to decreased generation availability and increase in forecast demand.
								Several updates to the forecast LOR2 condition were issued with similar effective periods. The forecast LOR2 condition improved due to increased net import, increased generation availability and decrease in forecast demand.
								An update was issued for the LOR2 forecast with an effective period of 18:00 - 19:00 (55 hour lead time) due to a decrease in generation availability.
								The forecast LOR2 condition was cancelled (50 hour lead time) due to an increase in generation availability.
								A forecast LOR1 condition was declared with an effective period of 18:00 - 19:30 (50 hour lead time) due to a decrease in import availability.
								A further decrease in import availability caused the LOR1 forecast to worsen to a forecast LOR2 with an effective period of 17:30 - 19:30 (49 hour lead time).
								An update was issued for the LOR2 forecast with the same effective period (45 hour lead time) and an improvement in reserve conditions due to an increase in generation availability.
								An update was issued for the LOR2 forecast with the same effective period (33 hour lead time) and a worsening of reserve conditions due to a decrease in generation availability.
								The forecast LOR2 was cancelled (28 hour lead time) due to increased import availability.
								The forecast LOR1 was cancelled (27 hour lead time) due to increased import availability.
								A forecast LOR1 condition was declared with an effective period of 18:00 - 19:00 (25 hour lead time) due to a decrease in generation availability.
								The forecast LOR1 was cancelled (23 hour lead time) due to increased generation availability.
								A forecast LOR1 condition was declared with an effective period of 18:00 - 19:00 (19 hour lead time) due to a decrease in generation availability.
								The forecast LOR1 was cancelled (15 hour lead time) due to increased generation availability.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								A forecast LOR1 condition was declared with an effective period of 18:00 - 19:00 (10 hour lead time) due to a decrease in generation availability.
								The forecast LOR1 was cancelled (2 hour lead time) due to increased generation availability.
								A forecast LOR1 condition was declared with an effective period of 18:00 - 19:00 (1 hour lead time) due to a decrease in generation and import availability.
								An actual LOR1 condition was declared due to decreased generation and import availability. The actual conditions existed from 17:30 - 19:00.
								The actual LOR1 condition worsened into an actual LOR2 condition with an effective period of 19:00 - 19:30 due to decreased generation availability.
								Actual LOR1 and LOR2 were cancelled when the effective period elapsed.
22/07/2021	NSW	2		1	1			Morning Peak Demand:
								A forecast LOR2 was declared with an effective period of 07:30 - 08:00 (64 hour lead time) due to a decrease in generation availability.
								A forecast LOR1 was declared with an effective period of 08:00 - 08:30 (64 hour lead time) due to a decrease in generation availability.
								An update was issued for the LOR2 forecast with an effective period of 07:00 - 09:00 (63 hour lead time) due to a decrease in import availability.
								A forecast LOR1 condition was declared for the morning peak with an effective period of 08:30 - 09:00 (16 hour lead time) due to decreased generation and import availability.
								An update was issued for the LOR1 forecast for the morning peak with the same effective period of 08:30 - 09:00 (10 hour lead time) with an improved reserve level due to an increase in generation and import availability.
								The LOR1 condition forecast for the morning peak worsened into and LOR2 condition (2 hour lead time) due to decreased import availability and an increase in the LOR2 trigger due to the reclassification of 4 Liddell units as a credible contingency.
								The LOR2 condition forecast for the morning peak was cancelled (1 hour lead time) due to an increase in generation and import availability.
								An actual LOR1 condition was declared due to decreased generation and import availability and the reclassification of 4 Liddell units as a credible contingency. The actual conditions existed from 09:00 - 10:00.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Evening Peak Demand:
								A forecast LOR1 condition was declared with an effective period of 17:30 - 20:00 (7 day lead time) due to decreased generation availability.
								An update to the forecast LOR1 condition was issued with the same effective period of 17:30 - 20:00 (6 day lead time). The forecast LOR1 condition worsened due to decreased generation availability, reduced net import and increase in forecast demand.
								An update to the forecast LOR1 condition was issued with an effective period of 18:00 - 19:30 (5 day lead time). The forecast LOR1 condition improved due to increased generation availability.
								Another update to the forecast LOR1 condition was issued with an effective period of 17:30 - 20:00 (4 day lead time). The forecast LOR1 condition worsened due to reduced net import and increase in forecast demand.
								A forecast LOR2 was declared for the evening peak and an update was issued for the morning peak with effective periods of 18:00 - 19:00 and 07:00 - 09:00 (56 hour lead time) due to a decrease in generation availability and rising forecast uncertainty.
								An update was issued for the LOR2 forecasts for both morning and evening peaks with effective periods of 07:00 - 09:00 and 17:30 - 20:00 (46 hour lead time) due rising forecast uncertainty.
								The forecast LOR1 and LOR2 conditions were cancelled (23 hour lead time) due to an increase in generation availability.
								A new LOR2 condition was forecast for the evening peak with an effective period 17:30 - 20:30 (28 hour lead time) due to a decrease in generation and import availability.
								New LOR1 condition were forecast for the morning and evening peaks with effective periods of 07:30 - 09:00 and 17:00 - 21:00 (18 hour lead time) due to a decrease in generation and import availability.
								All LOR1 and LOR2 forecast conditions were cancelled (15 hour lead time) due to an increase in generation and import availability.
								A forecast LOR1 condition was declared for the evening peak with an effective period of 18:00 - 19:00 (14 hour lead time) due to a decrease in import availability and an increase in forecast demand.
								An update was issued for the LOR1 conditions forecast for the evening peak with the same effective period 18:00 - 19:00 (8 hour lead time) with worsened reserve levels due to a decrease in generation availability.

Effective	Region	LC	OR1	LC	OR2	LOR3		Course and receivitien
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								An actual LOR1 condition was declared due to decreased generation and import availability. The actual conditions existed from 16:30 - 17:00.
								An actual LOR2 condition was declared due to decreased generation and import availability. The actual conditions existed from 17:00 - 17:30.
								Actual LOR1 and LOR2 were cancelled when the effective period elapsed.
23/07/2021	NSW		2		2			A forecast LOR2 condition was declared (67 hour lead time) with an effective period of 08:30 - 09:30 due to a decrease in generation and import availability and an increase in forecast uncertainty.
								An update was issued with the same effective period (65 hour lead time) forecasting a worsening of reserve level due to an increase in forecast demand.
								A forecast LOR1 condition was declared (65 hour lead time) with an effective period of 08:30 - 09:30 due to a decrease in generation and import availability and an increase in forecast uncertainty.
								An update was issued for the LOR2 forecast with a new effective period 08:30 - 10:00 (50 hour lead time) due to a decrease in generation and rising forecast uncertainty.
								An update was issued for the LOR2 forecast with the same effective period (47 hour lead time) with a worsening reserve level due to a decrease in generation.
								An update was issued for the LOR2 forecast with a new effective period for the morning peak 08:00 - 10:30 (43 hour lead time) due to decreased generation availability. Multiple new LOR2 conditions were forecast for the evening peak from 16:00 - 16:30 and 17:00 - 20:30 (51 hour lead time) due to decreased generation availability.
								An update was issued for both morning and evening peak LOR2 conditions with new effective periods 08:30 - 10:00 and 18:00 - 18:30 (42 hour lead time) due to an increase in generation availability.
								A forecast LOR1 condition was declared (51 hour lead time) for the evening peak with an effective period of 17:30 - 18:00 due to decreased generation availability.
								The forecast LOR2 conditions were cancelled (39 hour lead time) due to an increase in generation availability.
25/07/2021	NSW				1			A forecast LOR2 condition was declared (58 hour lead time) with an effective period of 18:00 - 19:00 due to an increase in the forecast uncertainty measure.

Effective	Region	L	OR1	LC	DR2	Le	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								The forecast LOR2 condition was cancelled (57 hour lead time) due to an increase in import and generation availability.
26/07/2021	NSW		1		1			A forecast LOR1 condition was declared with an effective period of 17:30 - 20:00 (7 day lead time) due to decreased generation availability.
								An update was issued (6 day lead time) forecasting an improvement in reserve level.
								A forecast LOR2 was later declared for an effective period 18:00 - 19:00 (5 day lead time) due to a decrease in generation availability. Several updates were issued due to a change in effective period (all with 5 day lead time).
								The forecast LOR2 was cancelled (5 day lead time) due to increased generation availability.
								A forecast LOR1 was later issued again for an effective period of 17:30 - 19:00 (4 day lead time) due to decreased generation availability.
								The forecast LOR1 was cancelled (3 day lead time) due to increased generation availability.
29/07/2021	NSW		1					A forecast LOR1 condition was declared with an effective period of 07:30 - 08:00 (5 hour lead time) due to decreased generation availability.
								The forecast LOR1 was cancelled due to increased generation availability.
06/07/2021	QLD	1						An actual LOR1 was declared. There was no prior forecast LOR1 declaration issued for this effective period. Actual conditions existed from 18:00 - 18:30. The available reserve level materially decreased in this trading interval due to a decrease in net import causing an actual LOR1 condition.
								The actual LOR1 was later cancelled when the effective period elapsed.
12/07/2021	QLD	1						A forecast LOR1 was initially declared for the evening peak with an effective time 18:00 - 19:00 (12 hour lead time). This reserve condition was mainly due to decreased net import and decreased generation availability
								An update was issued for a worsened LOR1 condition forecast with an effective period of 17:30 - 20:00 (5 hour lead time) due to a slight decrease in generation availability and net import.
								An update was issued for an improved LOR1 condition forecast with an effective period of 17:30 - 19:30 (2 hour lead time). This reserve condition was mainly due to a slight increase in generation availability and net import.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Actual LOR1 conditions existed from 17:00-19:00. The available reserve level materially decreased in this trading interval due to a decrease in generation availability and gradual increase in demand causing an actual LOR1 condition. The actual LOR1 was later cancelled when the effective period elapsed.
19/07/2021	QLD		2		1			<b>Morning Peak Demand:</b> A forecast LOR1 was initially declared for the morning peak with an effective time 07:00 - 07:30 (65 hour lead time). This reserve condition was mainly due to decreased net import and decreased generation availability
								An update was issued for a worsened LOR1 condition forecast with an effective period of 07:00 - 07:30 (32 hour lead time).due to due to a slight decrease in forecast generation availability.
								LOR1 was redeclared with an effective time 07:00 - 07:30 (18 hour lead time) due to decreased net import.
								<b>Evening Peak Demand:</b> A forecast LOR1 was initially declared for the evening peak with an effective time 17:30 - 20:00 (6 day lead time). This reserve condition was mainly due to decreased net import and increase in forecast demand.
								An update was issued for an improved LOR1 condition forecast with an effective period of 17:30 - 20:00 (4 day lead time). This reserve condition was mainly due to increased net import
								Forecast LOR2 was declared with an effective time 17:30 - 19:30 (3 day lead time) due to decreased generation availability, increase in forecast demand and decreased net import.
								Several updates were issued for an LOR2 condition forecast which improved and worsened with an effective period between 18:00 – 19:30 (3 day, 58 hour, 50 hour, 41 hour, 36 hour and 19 hour respectively) on the effective date due to changes in generation availability, demand and net import.
								Several updates were issued for a worsened LOR1 condition forecast with an effective period of 19:00 - 20:30, 17:00 -17:30 and 19:30 – 20:30 (3 day, 24 hour and 50 hour lead time) due to a slight decrease in forecast generation availability and net import.
								LOR1 was redeclared with an effective time 17:00 - 17:30 and 19:30 – 20:30 (26 hour and 31 hour lead time respectively) due to decreased net import and decreased generation.
								LOR2 was redeclared with an effective time 17:30 - 19:30 (29 hour lead time) due to decreased net import and decreased generation.

Effective	Region	LC	OR1	L	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Several updates toggled between LOR1 and LOR2 due to changes in demand, generation availability and net import. These LORs were cancelled when generation and net import improved on the effective date. LOR1 was once again redeclared with a 6 hour lead time due to decreased generation availability. This was cancelled 2.5 hours later when the generation improved.
20/07/2021	QLD		1		1			A forecast LOR1 was initially declared for the evening peak with an effective time 18:30 - 19:00 (7 day lead time). This reserve condition was mainly due to decreased net import. Several updates were issued for a varying LOR1 condition forecast with an effective period of 17:30 - 20:00, 17:00 - 18:00, 19:00 - 20:30, 20:00 - 21:00, 17:30 - 18:00, 19:00 - 20:30 (5 day, 4 day, 4 day, 3 day, 51 hour and 53 hour lead time respectively) due to decrease in generation availability and net import. Forecast LOR2 was declared with an effective time 18:00 - 19:00 (4 day lead time) due to decreased generation availability, increase in forecast demand and decreased net import. Several updates were issued for a varying LOR1 condition forecast with an effective period of 18:00 - 19:00, 17:30 - 20:00, 17:30 - 20:00, 17:30 - 19:30, 18:00 - 19:00, 18:00 - 19:00 (4 day, 4 day, 3 day, 3 day, 3 day and 24 hour lead time respectively) due to decrease in generation availability and decreased net import. Forecast LOR1 was redeclared with an effective time 18:30 - 19:00 (24 hour lead time) due to decreased net import. Forecast LOR1 was redeclared with an effective time 18:30 - 19:00 (24 hour lead time) due to decreased net import. Forecast LOR1 was redeclared with an effective time 18:30 - 19:00 (24 hour lead time) due to decreased net import. Forecast LOR1 was redeclared with an effective time 18:30 - 19:00 (24 hour lead time) due to decreased net import, increased demand and decreased generation availability. An update was issued for a worsened LOR1 condition forecast with an effective period of 18:00 - 19:30 (10 hour lead time). This reserve condition was mainly due to slightly decreased generation and increased demand. The LOR1 forecast and update was later cancelled due to improved generation availability. Forecast LOR1 was redeclared with an effective time 20:30 - 21:00 (2 hour lead time) due to decreased generation availability. This LOR1 forecast was cancelled an hour later when the available generation improved.
21/07/2021	QLD	1		1				A forecast LOR2 was initially declared for the evening peak with an effective time 17:30 - 19:30 (7 day lead time). This reserve condition was mainly due to decreased net import and increase in forecast demand. An update was issued for a slightly improved LOR2 condition with an effective period of
								18:00 - 18:30 (3 day lead time) followed by a worsened LOR2 condition forecast with an effective period of 17:30 - 20:30 (34 hour lead time). The initial update was due to a slightly increased net

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								import followed by the second update in reserve condition that was mainly due to slightly decreased net import and increased demand.
								A forecast LOR1 was declared for the evening peak with an effective time 18:30 - 19:00 (7 hour lead time). This was previously an LOR2 and this improved reserve condition was mainly due to increase in available generation.
								A forecast LOR1 was redeclared with an effective time 17:30 - 19:00 (7 hour lead time). This was previously an LOR2 and this improved reserve condition was mainly due to increase in available generation.
								An actual LOR1 condition existed from 17:30 - 18:00 which worsened into an actual LOR2 condition with an effective period of 18:00 - 19:00. These reserve conditions were mainly due to reduced net import and decreased generation availability.
								Actual LOR1 and LOR2 were cancelled when the effective period elapsed.
22/07/2021	QLD		1		2			A forecast LOR1 was initially declared for the evening peak with an effective time 18:00 - 19:30 (6 day lead time). This reserve condition was mainly due to decreased net import and decreased generation availability.
								An update was issued for an improved LOR1 condition forecast with an effective period of 18:00 - 19:30 (5 day lead time) and later a worsened LOR1 for the same effective period (4 day lead time) due to changes in net import.
								A forecast LOR2 was declared for the morning and evening peak with an effective time 7:00 - 7:30, 17:30 - 20:00 (3 day lead time respectively). This reserve condition was mainly due to decreased net import.
								An update was issued for an improved LOR2 condition forecast with an effective period of 17:30 - 20:00 (58 hour lead time) due to increased net import.
								LOR2 was redeclared with an effective time 17:30 - 19:00 (29 hour lead time). This reserve condition was mainly due to decreased net import and increased demand. This was later updated with an effective period of 18:00 - 19:00 (29 hour lead time) due to increased net import.
								An LOR1 was also redeclared for 17:30 – 18:00, 19:00 – 20:00 (29 hour lead time). This reserve condition was mainly due to decreased net import and increased demand.
								The forecast LOR2 was later cancelled due to an increased generation and increased net import.
23/07/2021	QLD		1		1			A forecast LOR2 was declared for the evening peak with an effective time 17:30 - 18:00 (53 hour lead time). This reserve condition was mainly due to decreased net import and increased demand.

Effective	Region	LC	OR1	LC	OR2	Le	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Forecast LOR2 was later cancelled due to an increased generation.
								A forecast LOR1 was declared with an effective time 17:30 - 21:00 (1 hour lead time). This reserve condition was mainly due to increased demand and decreased generation availability.
								An update was issued for a worsened LOR1 condition forecast with an effective period of 17:30 - 21:30 (8 minutes lead time) due to decreased generation availability and decreased net import.
								The forecast LOR1 was later cancelled due to increased net import.
26/07/2021	QLD		1		1			A forecast LOR1 was declared with an effective time 18:00 - 19:00 (7 day lead time). This reserve condition was mainly due to increased demand and decreased net import.
								Several updates were issued for a varying LOR1 condition forecast with an effective period of 17:30 - 19:30, 17:30 - 18:00, 19:00 - 19:30, 18:00 - 19:00(6 day, 5 day, 5 day and 4 day lead time respectively) due to changes in net import.
								The LOR1 was cancelled due to increased net import.
								A forecast LOR2 was declared for the evening peak with an effective time 18:00 - 19:00 (5 day lead time). This reserve condition was mainly due to decreased net import and increased demand.
								An update for a worsened LOR2 was issued for an effective time 18:00 – 19:00 (5 day lead time). This was due to decreased net import and increased demand.
								LOR2 was later cancelled due to increased net import.
								Forecast LOR1 was declared for an effective time 18:00 – 19:00 (29 hour lead time). This reserve condition was due to decreased net import and decreased available generation. There was an update issued for an effective time 17:30 – 19:00 (24 hour lead time), this update was due to increased net import.
								LOR1 was later cancelled due to increased net import.
								Forecast LOR1 was redeclared for an effective time 18:00 – 19:00 (1 hour lead time) due to slightly decreased generation and increased demand. This LOR1 forecast was cancelled an hour later due to an increased generation.
								Another forecast LOR1 was issued for an effective period 18:00 – 19:00 (6 minutes lead time) due to decreased generation. This evolved into an actual LOR1 which existed between 18:00 -19:00.
								The actual LOR1 was later cancelled when the effective period elapsed.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
27/07/2021	QLD		1					A forecast LOR1 was declared with an effective time 07:00 - 07:30 (18 hour lead time). This reserve condition was mainly due to increased demand. The forecast LOR1 was later cancelled due to increased net import.
30/08/2021	QLD	1						A forecast LOR1 was declared with an effective period of 18:00 – 18:30 (4 day lead time). This reserve condition was mainly due to decreased generation availability. The forecast LOR1 was cancelled mainly due to increased generation availability. A forecast LOR1 was later redeclared with similar effective period 18:00 - 19:00 (2 day lead time) due to decreased generation availability. An update was issued for the LOR1 condition forecast with the same effective period (1 day lead time). The reserve level changed slightly, the main reason for the reserve condition is due to decreased generation availability. An update was issued for the LOR1 condition forecast with the same effective period (1 day lead time). The reserve level changed slightly, the main reason for the reserve condition is due to decreased generation availability. An update was issued for the LOR1 condition forecast with the same effective period (10 hour lead time). The forecast LOR1 condition worsened due to the decreased generation availability and slight increase in forecast demand. The forecast LOR1 condition was cancelled mainly due to increased generation availability. A forecast LOR1 was later redeclared with the same effective period 18:00 - 19:00 (2 minute lead time) due to decreased generation availability. An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 18:00 - 19:00. The actual LOR1 was later cancelled when the effective period elapsed.
20/09/2021	QLD		1					A forecast LOR1 was declared with an effective period of 17:30 - 18:00 (2 hour lead time). This reserve condition was mainly due to decreased generation availability. The forecast LOR1 was cancelled mainly due to increased generation availability. A forecast LOR1 was later redeclared with similar effective period 18:30 - 19:00 (13 minute lead time) due to decreased generation availability. The forecast LOR1 was cancelled when the effective period elapsed. Actual LOR1 did not eventuate as demand was lower than what was forecasted.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
29/07/2021	SA		1					A forecast LOR1 was declared with an effective period of 07:30 - 09:00 (16 hour lead time). This reserve condition was mainly due to decreased generation availability.
								The forecast LOR1 was cancelled mainly due to increased generation availability .
01/08/2021	SA		1		1			A forecast LOR2 condition was declared with an effective period of 17:30 - 19:30 (30 hour lead time) due to decreased generation availability and increase in FUM (FUM was setting the LOR2 trigger level).
								The forecast LOR2 was cancelled mainly due to increased generation availability.
								The forecast LOR2 condition was cancelled due to increased net import and decrease in forecast demand.
								A forecast LOR1 condition shorty later declared with the same effective period of 17:30 - 19:30 (28 hour lead time) due to decreased generation availability and reduced net import.
								The forecast LOR1 condition was cancelled mainly due to increased generation availability.
12/08/2021	SA				1			A forecast LOR2 was declared with an effective period of 07:30 - 08:00 (2 day lead time). This reserve condition was mainly due to decreased generation availability.
								Forecast LOR2 was later cancelled mainly due to increased generation availability.
25/08/2021	SA		2		1			<b>Morning Peak Demand:</b> A forecast LOR1 was initially declared for the morning peak with an effective period of 09:00 - 10:30 (7 day lead time). This reserve condition was mainly due to reduced net import.
								An update was issued for an improved LOR1 condition forecast with an effective period of 09:00 - 09:30 (6 day lead time). The effective period shortened and forecast LOR1 condition improved due to increased net import.
								An update was issued for the LOR1 condition forecast with an effective period of 08:00 - 08:30 (5 day lead time). The effective period changed slightly, this reserve condition was mainly due to decreased generation availability and decreased net import.
								The forecast LOR1 was cancelled mainly due to an increase in net import.
								<b>Evening Peak Demand:</b> A forecast LOR2 was initially declared for the evening peak with an effective period of 18:00 - 21:30. Forecast LOR1 reserve conditions were also declared with effective periods of 17:00 - 18:00, 21:30 - 01:00 (7 day lead time). These reserve condition was mainly due to reduced net import and decreased generation availability.

Effective	Region	LC	OR1	LC	OR2	LOR3		
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								An update was issued for the LOR2 condition forecast with no significant changes (6 day lead time).
								An update was issued for the LOR1 condition forecast due to the change in effective period, 17:00 - 18:00, 22:00 - 01:30 with no significant changes in reserve level (6 day lead time).
								An update was issued for the LOR2 condition forecast due to the change in effective period, 18:00 - 22:00 (6 day lead time), with no significant changes in reserve level.
								An update was issued for the LOR2 condition forecast due to the change in effective period, 19:00 - 20:30 (5 day lead time), The forecast LOR2 condition improved due to an increase in generation availability.
								The forecast LOR2 condition was cancelled due to increased generation availability.
								LOR2 was redeclared with an effective time 19:00 - 19:30 (5 day lead time) due to decreased generation availability.
								An update was issued for the LOR1 condition forecast due to the change in effective period, 17:30 - 19:00, 19:30 - 22:30 (5 day lead time), The forecast LOR1 condition improved due to an increase in generation availability.
								The forecast LOR1 and forecast LOR2 condition was cancelled due to increased net import.
26/08/2021	SA		2		1			<b>Morning Peak Demand:</b> A forecast LOR1 was initially declared for the morning peak with an effective period of 06:30 - 09:00 (7 day lead time). This reserve condition was mainly due to decreased generation availability.
								The forecast LOR1 was cancelled mainly due to increased generation availability.
								<b>Evening Peak Demand:</b> A forecast LOR1 was initially declared for the evening peak with an effective period of 18:00 - 21:30 (7 day lead time). This reserve condition was mainly due to reduced net import and reduced generation availability.
								Forecast LOR2 was declared with an effective time 18:30 - 20:30 (7 day lead time) change of the forecast reserve level. The forecast LOR1 worsened to forecast LOR2 condition due to decreased generation availability and increased forecast demand.
								An update was issued for the LOR2 condition forecast due to the change in effective period, 19:00 - 20:00 (6 day lead time), LOR2 condition improved due to an increase in generation availability.

Effective	Region	LC	OR1	LC	OR2	L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								The forecast LOR2 condition was downgraded to forecast LOR1 condition with an effective period 18:30 - 21:30 (5 day lead time) due to increased generation availability.
								The forecast LOR1 was cancelled mainly due to increased net import and increased generation availability.
07/09/2021	SA		2		1			Morning Peak Demand: A forecast LOR1 was initially declared for the morning peak with an effective period of 07:00 - 08:00 (7 day lead time). This reserve condition was mainly due to decreased generation availability.
								The forecast LOR1 was cancelled mainly due to increased generation availability.
								<b>Evening Peak Demand:</b> A forecast LOR2 was initially declared for the evening peak with an effective period of 19:00 - 20:00 (7 day lead time). Forecast LOR1 reserve conditions were also declared with effective periods of 18:00 - 19:00, 20:00 - 23:00, 23:30 - 00:30 (7 day lead time). These reserve condition was mainly due to decreased generation availability.
								An update was issued for the LOR2 condition forecast due to change in effective period, 18:00 - 02:30 (7 day lead time). The effective period expanded and forecast LOR2 condition worsened due to a further decrease in generation availability.
								An update to the forecast LOR2 condition was issued with an effective period of 18:30 - 21:30 (7 day lead time). The forecast LOR2 condition improved due to the increased generation availability.
								An update to the forecast LOR2 condition was issued with an effective period of 19:00 - 20:30 (6 day lead time). The forecast LOR2 condition improved due to the increased generation availability.
								The forecast LOR2 was cancelled mainly due to increased generation availability.
								An update to the forecast LOR1 condition was issued with an effective period of 18:30 - 21:00 (6 day lead time). The Forecast LOR2 condition improved to Forecast LOR1 condition due to the increased generation availability.
								The forecast LOR1 was cancelled mainly due to increased generation availability.
21/09/2021	SA		1		1			A forecast LOR1 was declared with an effective period of 19:00 - 20:30 (5 day lead time). This reserve condition was mainly due to reduced net import and decreased generation availability.

Effective	Region	LOR1		LOR2		L	OR3	
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								Forecast LOR2 was declared with an effective time 19:00 - 20:00 (4 day lead time) change of the forecast reserve level. The forecast LOR1 worsened to forecast LOR2 condition due to further decreased generation availability and decreased net import.
								An update was issued for a worsened LOR1 condition forecast with an effective period of 18:00 - 18:30, 21:00 - 23:00 (3 day lead time). The effective period extended and forecast LOR1 condition worsened due to an increase in forecast demand.
								An update was issued for the LOR2 condition forecast due to change in effective period, 18:30 - 21:00. The effective period extended and forecast LOR2 condition worsened due to a further decrease in generation availability and increase in forecast demand.
								The forecast LOR2 was cancelled mainly due to increased generation availability.
								An update was issued for the LOR1 condition forecast due to change in effective period, 19:00 - 21:00 (15 hour lead time), this reserve condition was mainly due to decreased generation availability and increase in forecast demand.
								An update was issued for the LOR1 condition forecast due to the change in effective period, 20:00 - 21:00 (10 hour lead time), LOR1 condition improved due to an increase in generation availability.
								The forecast LOR1 was cancelled mainly due to decrease in the forecast demand. Demand was lower than what was forecasted.
22/09/2021	SA		1					A forecast LOR1 was declared with an effective period of 19:00 - 20:30 (5 day lead time). This reserve condition was mainly due to reduced net import and decreased generation availability.
								An update was issued for the LOR1 condition forecast with no significant changes (4 day lead time).
								The forecast LOR1 was cancelled mainly due to increased generation availability .
14/09/2021	TAS		2					<b>Morning Peak Demand:</b> A forecast LOR1 was initially declared for the morning peak with an effective period of 07:30 - 08:30 (6 day lead time). This reserve condition was mainly due to decreased generation availability.
								An update was issued for the LOR1 condition forecast with no significant changes (5 day lead time).
								The forecast LOR1 condition was cancelled mainly due to increased generation availability.
								Evening Peak Demand:

Effective	Region	LOR1		LOR2		LOR3		
date <sup>A</sup>		Actual	Forecast	Actual	Forecast	Actual	Forecast	Cause and resolution
								A forecast LOR1 was initially declared for the evening peak with an effective period of 18:30 - 19:00 (3 day lead time). This reserve condition was mainly due to decreased generation availability.
								An update was issued for a worsened LOR1 condition forecast with an effective period of 18:00 - 19:30 (2 day lead time), due to a slight increase in forecast demand.
								The forecast LOR1 condition was cancelled mainly due to increased generation availability.
15/09/2021	TAS		1					A forecast LOR1 was declared with an effective period of 07:30 - 08:30 (6 day lead time). This reserve condition was mainly due to decreased generation availability.
								The forecast LOR1 condition was cancelled mainly due to increased generation availability.
								A forecast LOR1 was later redeclared with similar effective period (2.6 day lead time) due to decreased generation availability.
								The forecast LOR1 condition was cancelled mainly due to increased generation availability.
Total		16	28	4	21	0	0	

A. Effective date is the date on which the condition occurred or was expected to occur, and may differ from the date on which a market notice advising of the forecast or actual condition was issued.

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
New South Wal	les region								
01/07/2021 17:00 - 18:30	87785	1/07/2021 15:11	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and slight increase in forecast demand.	1,430	1,125	534	LCR2
01/07/2021 17:30 - 18:00	87792	1/07/2021 17:45	LOR1	Actual	Actual LOR1 declared. Reduced net import, decreased generation availability and slight increase in demand caused an actual LOR1 condition.	1,470	1,433	213	LCR2
01/07/2021	87794	1/07/2021 18:00	LOR1	Cancelled	This cancelled MN 87792. Actual LOR1 cancelled as condition cleared after effective period.	1,459	1,946	213	LCR2
05/07/2021 18:00 - 18:30	87890	4/07/2021 14:28	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and decreased generation availability.	1,407	1,395	1,092	LCR2
05/07/2021	87891	4/07/2021 16:12	LOR1	Cancelled	This cancelled MN 87890. Forecast LOR1 cancelled due to increased net import.	1,517	1,569	978	LCR2
05/07/2021 18:00 - 18:30	87892	5/07/2021 5:32	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and slight increase in forecast demand.	1,453	1,440	707	LCR2
05/07/2021 17:30 - 18:00	87897	5/07/2021 17:47	LOR1	Actual	Actual LOR1 declared. Reduced net import, decreased generation availability and increase in demand caused an actual LOR1 condition.	1,452	1,393	213	LCR2
05/07/2021	87898	5/07/2021 19:16	LOR1	Cancelled	This cancelled MN 87897. Actual LOR1 cancelled as condition cleared after effective period.	1,435	1,753	213	LCR2
06/07/2021 17:30 - 18:30	87896	5/07/2021 13:22	LOR1	Forecast	Forecast LOR1 declared due to reduced net import.	1,430	1,410	1,010	LCR2
06/07/2021	87903	6/07/2021 15:18	LOR1	Cancelled	This cancelled MN 87896. Forecast LOR1 cancelled due to a decrease in forecast demand.	1,450	1,480	506	LCR2

#### Table 2 LOR notices declared during the reporting period 1 July to 30 September 2021

Effective date and	Market Notice	Issue date	Level	Actual, forecast, update or cancel	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level		Comments	Required	Available	(MW) <sup>B</sup>	set by
06/07/2021 17:30 - 19:30	87904	6/07/2021 15:43	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and reduced net import.	1,450	1,175	473	LCR2
06/07/2021 17:30 - 18:30	87917	6/07/2021 17:44	LOR2	Actual	Actual LOR2 declared. An increase in demand, reduced net import and decreased generation availability caused an actual LOR2 condition.	720	616	213	LCR
06/07/2021 18:30 - 20:00	87924	6/07/2021 18:11	LOR1	Update	Update to MN 87904 due to change in effective period and forecast reserve level. The forecast reserve condition worsened due to increase in forecast demand, reduced net import and decreased generation availability.	1,500	1,000	360	LCR2
06/07/2021	87930	6/07/2021 18:21	LOR2	Cancelled	This cancelled MN 87917. Actual LOR2 cancelled as condition cleared after effective period.	720	900	213	LCR
06/07/2021 18:00 - 20:00	87932	6/07/2021 18:24	LOR1	Actual	Actual LOR1 declared. An increase in demand and reduced net import caused an actual LOR1 condition.	1,435	900	213	LCR2
06/07/2021	87933	6/07/2021 20:00	LOR1	Cancelled	This cancelled MN 87932. Actual LOR1 cancelled as condition cleared after effective period.	1,508	1,598	213	LCR2
07/07/2021 18:30 - 19:00	87935	7/07/2021 5:41	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and slight increase in forecast demand.	1,488	1,476	737	LCR2
07/07/2021	87936	7/07/2021 8:09	LOR1	Cancelled	This cancelled MN 87935. Forecast LOR1 cancelled due to increased net import.	1,497	1,607	727	LCR2
07/07/2021 17:30 - 19:00	87938	7/07/2021 15:45	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,499	1,386	506	LCR2
07/07/2021 17:30 - 19:00	87943	7/07/2021 17:40	LOR1	Actual	Actual LOR1 declared. An increase in demand and reduced net import caused an actual LOR1 condition.	1,488	1,255	213	LCR2
07/07/2021	87944	7/07/2021 19:04	LOR1	Cancelled	This cancelled MN 87943. Actual LOR1 cancelled as condition cleared after effective period.	1,505	1,588	213	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast, update or cancel	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Levei		Comments	Required	Available	(MW) <sup>B</sup>	set by
12/07/2021 07:30 - 08:30	87976	10/07/2021 9:26	LOR2	Forecast	Forecast LOR2 declared due to reduced net import	1,667	1,473	1,667	FUM
12/07/2021	87978	10/07/2021 14:21	LOR2	Cancelled	This cancelled MN 87976. Forecast LOR2 cancelled due to a decrease in the FUM and increased generation availability.	1,398	1,494	1,398	FUM
12/07/2021 07:30 - 08:30	88016	11/07/2021 21:42	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and slight increase in forecast demand.	1,400	1,309	691	LCR2
12/07/2021 07:30 - 08:30	88017	11/07/2021 22:15	LOR1	Update	Update to MN 88016 due to change in forecast reserve level. The forecast LOR1 condition worsened due to an increase in forecast demand.	1,400	1,291	670	LCR2
12/07/2021 07:30 - 08:30	88019	12/07/2021 3:17	LOR1	Update	Update to MN 88017 due to change in forecast reserve level. The forecast LOR1 condition worsened due to reduced net import and increase in forecast demand.	1,400	777	577	LCR2
12/07/2021	88023	12/07/2021 7:43	LOR1	Cancelled	This cancelled MN 88019. Forecast LOR1 cancelled due to increased net import, increased generation availability and slight decrease in forecast demand.	1,400	1,793	220	LCR2
12/07/2021 18:00 - 19:00	88036	12/07/2021 10:04	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and slight increase in forecast demand.	1,400	1,250	776	LCR2
12/07/2021 18:00 - 19:00	88041	12/07/2021 15:32	LOR1	Update	Update to MN 88036 due to change in forecast reserve level. The forecast LOR1 condition worsened due to reduced net import and decreased generation availability.	1,400	1,230	534	LCR2
12/07/2021 17:00 - 18:30	88042	12/07/2021 17:17	LOR1	Actual	Actual LOR1 declared. Reduced net import, decreased generation availability and increase in demand caused an actual LOR1 condition.	1,400	854	328	LCR2
12/07/2021	88066	12/07/2021 19:17	LOR1	Cancelled	This cancelled MN 88042. Actual LOR1 cancelled as condition cleared after effective period.	1,437	1,599	213	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
14/07/2021 08:00 - 09:00	88129	14/07/2021 6:17	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,400	1,289	494	LCR2
14/07/2021	88131	14/07/2021 7:16	LOR1	Cancelled	This cancelled MN 88129. Forecast LOR1 cancelled due to a decrease in forecast demand.	1,400	1,552	390	LCR2
14/07/2021 08:00 - 09:00	88132	14/07/2021 8:12	LOR1	Actual	Actual LOR1 declared. Reduced net import caused an actual LOR1 condition.	1,400	1,151	220	LCR2
14/07/2021 08:00 - 10:30	88148	14/07/2021 9:22	LOR1	Update	Update to MN 88132 due to change in effective period and reserve level. The actual LOR1 condition worsened due to increase in demand, reduced net import and decreased generation availability.	1,400	762	213	LCR2
14/07/2021	88151	14/07/2021 12:06	LOR1	Cancelled	This cancelled MN 88148. Actual LOR1 cancelled as condition cleared after effective period.	1,400	1,463	220	LCR2
14/07/2021 12:30 - 13:00	88153	14/07/2021 12:53	LOR1	Actual	Actual LOR1 declared. Reduced net import and increase in demand caused an actual LOR1 condition.	1,400	1,386	220	LCR2
14/07/2021	88180	14/07/2021 14:43	LOR1	Cancelled	This cancelled MN 88153. Actual LOR1 cancelled as condition cleared after effective period.	1,400	1,501	213	LCR2
14/07/2021 17:30 - 18:30	88195	14/07/2021 17:50	LOR1	Actual	Actual LOR1 declared. Decreased generation availability, reduced net import and increase in demand caused an actual LOR1 condition.	1,410	1,209	213	LCR2
14/07/2021	88202	14/07/2021 18:57	LOR1	Cancelled	This cancelled MN 88195. Actual LOR1 cancelled as condition cleared after effective period.	1,400	1,478	213	LCR2
19/07/2021 18:00 - 19:00	88113	13/07/2021 15:01	LOR1	Forecast	Forecast LOR1 declared due to an increase in forecast demand.	1,430	1,342	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 18:00 - 18:30	88149	14/07/2021 9:36	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability and slight increase in forecast demand.	730	701	n/a – forecast > 72 hrs ahead	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Levei	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
19/07/2021	88152	14/07/2021 13:04	LOR2	Cancelled	This cancelled MN 88149. Forecast LOR2 cancelled due to increased net import and decrease in forecast demand.	730	768	n/a – forecast > 72 hrs ahead	LCR
19/07/2021 18:00 - 19:00	88173	14/07/2021 14:48	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability and slight increase in forecast demand.	730	613	n/a – forecast > 72 hrs ahead	LCR
19/07/2021 17:30 - 18:00	88191	14/07/2021 15:50	LOR1	Update	Update to MN 88113 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability.	1,430	854	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 19:00 - 20:30	88191	14/07/2021 15:50	LOR1	Update	Update to MN 88113 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability and slight increase in forecast demand.	1,430	873	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 17:30 - 18:00	88251	15/07/2021 15:05	LOR1	Update	Update to MN 88191 due to change in forecast reserve level. The forecast LOR1 condition improved due to increased generation availability.	1,430	924	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 19:00 - 20:00	88251	15/07/2021 15:05	LOR1	Update	Update to MN 88191 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to reduced net import and increase in forecast demand.	1,430	776	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 17:30 -19:00	88276	16/07/2021 9:03	LOR2	Update	Update to MN 88173 due to change in effective period and forecast reserve level. The forecast LOR2 condition worsened due to an increase in forecast demand and reduced net import.	730	510	n/a – forecast > 72 hrs ahead	LCR
19/07/2021 18:00 -19:00	88279	16/07/2021 12:03	LOR2	Update	Update to MN 88276 due to change in effective period and forecast reserve level. The forecast LOR2 condition improved due to a decrease in forecast demand.	730	560	n/a – forecast > 72 hrs ahead	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
19/07/2021 08:00 - 08:30	88283	16/07/2021 15:02	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability and increase in forecast demand.	1,385	1,314	1,385	FUM
19/07/2021 18:00 -19:00	88283	16/07/2021 15:02	LOR2	Update	Update to MN 88279 due to change in effective period and forecast reserve level. The forecast LOR2 condition improved due to increased generation availability.	730	579	n/a – forecast > 72 hrs ahead	LCR
19/07/2021 07:30 - 08:00	88286	16/07/2021 15:03	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and increase in forecast demand.	1,430	1,386	1,369	LCR2
19/07/2021 17:00 -18:00	88286	16/07/2021 15:03	LOR1	Update	Update to MN 88251 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability and increase in forecast demand.	1,430	746	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 19:00 -20:30	88286	16/07/2021 15:03	LOR1	Update	Update to MN 88251 due to change in effective period and forecast reserve level. The forecast LOR1 condition improved due to increased net import.	1,430	912	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 07:30 - 08:30	88305	17/07/2021 8:58	LOR2	Update	Update to MN 88283 due to change in effective period and forecast reserve level. The forecast reserve level improved due to increased generation availability and decrease in forecast demand.	1,446	1,389	1,446	FUM
19/07/2021 17:00 - 20:30	88305	17/07/2021 8:58	LOR2	Update	Update to MN 88283 due to change in effective period and forecast reserve level. The forecast LOR2 condition worsened due to decreased generation availability.	1,552	561	1,552	FUM
19/07/2021 17:00 - 20:00	88310	17/07/2021 15:52	LOR2	Update	Update to MN 88305 due to change in effective period and forecast reserve level. The forecast reserve level worsened due to an increase in forecast demand.	1,390	554	1,390	FUM

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
19/07/2021 20:00 - 20:30	88311	17/07/2021 15:53	LOR1	Update	Update to MN 88286 due to change in effective period and forecast reserve level. The forecast LOR1 condition improved due to a decrease in forecast demand and increased generation availability.	1,430	1,391	1,367	LCR2
19/07/2021 17:30 - 20:00	88324	18/07/2021 00:47	LOR2	Update	Update to MN 88310 due to change in effective period and forecast reserve level. The forecast reserve level worsened due to decreased generation availability and reduced net import.	1,128	549	1,128	FUM
19/07/2021 07:30 - 08:30	88327	18/07/2021 5:53	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability.	1,216	1,088	1,216	FUM
19/07/2021 17:00 - 20:00	88327	18/07/2021 5:53	LOR2	Update	Update to MN 88324 due to change in effective period and forecast reserve level. The forecast LOR2 condition worsened due to decreased generation availability.	1,334	458	1,334	FUM
19/07/2021 07:00 - 07:30	88335	18/07/2021 13:23	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,430	1,257	1,141	LCR2
19/07/2021 09:00 - 10:00	88335	18/07/2021 13:23	LOR1	Forecast	Forecast LOR1 declared due to reduced net import.	1,430	1,387	1,186	LCR2
19/07/2021 20:30 - 21:00	88335	18/07/2021 13:23	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,430	1,392	1,266	LCR2
19/07/2021 07:30 - 09:00	88336	18/07/2021 13:27	LOR2	Forecast	Forecast LOR2 declared due to reduced net import.	1,141	914	1,141	FUM
19/07/2021 17:00 - 20:30	88336	18/07/2021 13:27	LOR2	Forecast	Forecast LOR2 declared due to reduced net import and increase in forecast demand.	1,233	293	1,233	FUM
19/07/2021 07:00 - 09:00	88344	18/07/2021 17:49	LOR1	Update	Update to MN 88335 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to reduced net import and increase in forecast demand.	1,430	1,014	826	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast, update or cancel	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level		Comments	Required	Available	(MW) <sup>B</sup>	set by
19/07/2021 17:00 - 17:30, 19:00 - 20:00	88344	18/07/2021 17:49	LOR1	Update	Update to MN 88335 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to reduced net import, decreased generation availability and increase in forecast demand.	1,430	1,107	957	LCR2
19/07/2021 17:30 - 19:00	88345	18/07/2021 17:50	LOR2	Update	Update to MN 88336 due to change in effective period and forecast reserve level. The forecast LOR2 condition improved due to a decrease in forecast demand and increased generation availability.	969	683	969	FUM
19/07/2021 07:30 - 09:00	88364	19/07/2021 06:50	LOR1	Update	Update to MN 88344 due to change in effective period and forecast reserve level. The forecast reserve level worsened due to reduced net import and decreased generation availability.	1,430	794	477	LCR2
19/07/2021 17:00 - 17:30, 19:00 - 20:30	88364	19/07/2021 06:50	LOR1	Update	Update to MN 88344 due to change in effective period and forecast reserve level. The forecast reserve level worsened due to an increase in forecast demand and decreased generation availability.	1,380	844	763	LCR2
19/07/2021 17:30 - 19:00	88361	19/07/2021 6:52	LOR2	Update	Update to MN 88345 due to change in forecast reserve level. The forecast LOR2 condition worsened due to an increase in forecast demand.	756	309	756	FUM
19/07/2021 08:00 - 09:00	88386	19/07/2021 8:12	LOR1	Actual	Actual LOR1 declared. Decreased generation availability caused an actual LOR1 condition.	1,454	1,114	220	LCR2
19/07/2021 18:00 - 19:00	88388	19/07/2021 8:19	LOR1	Update	Update to MN 88364 due to change in effective period and forecast reserve level. The forecast LOR1 condition improved due to increased generation availability.	1,400	1,227	742	LCR2
19/07/2021	88389	19/07/2021 8:28	LOR2	Cancelled	This cancelled MN 88361. Forecast LOR2 cancelled due to increased generation availability	742	1,227	742	FUM
Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
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time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
19/07/2021	88404	19/07/2021 9:39	LOR1	Cancelled	This cancelled MN 88386. Actual LOR1 cancelled as condition cleared after effective period.	1,532	1,728	213	LCR2
19/07/2021	88412	19/07/2021 14:14	LOR1	Cancelled	This cancelled MN 88388. Forecast LOR1 cancelled due to increased generation and import availability	1,380	1514	603	LCR2
20/07/2021 18:00 - 19:00	88154	14/07/2021 13:06	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability, increase in forecast demand and reduced net import.	730	559	n/a – forecast > 72 hrs ahead	LCR
20/07/2021 17:00 - 17:30	88192	14/07/2021 15:52	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability, slight increase in forecast demand and reduced net import.	1,430	1,352	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 19:30 - 21:00	88192	14/07/2021 15:52	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability, slight increase in forecast demand and reduced net import.	1,430	842	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021	88214	15/07/2021 9:54	LOR2	Cancelled	This cancelled MN 88154. Forecast LOR2 cancelled due to a decrease in forecast demand.	730	949	n/a – forecast > 72 hrs ahead	LCR
20/07/2021 17:30 - 20:00	88251	15/07/2021 15:05	LOR1	Update	Update to MN 88192 due to change in effective period and forecast reserve level. The forecast LOR1 condition improved due to increased generation availability and decrease in forecast demand.	1,430	975	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 17:30 - 20:00	88286	16/07/2021 15:03	LOR1	Update	Update to MN 88251 due to change in forecast reserve level. The forecast LOR1 condition worsened due to an increase in forecast demand.	1,430	943	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 17:30 - 20:00	88311	17/07/2021 15:53	LOR1	Update	Update to MN 88286 due to change in forecast reserve level. The forecast LOR1 condition worsened due to an increase in forecast demand and reduced net import.	1,430	851	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 17:30 - 19:30	88324	18/07/2021 00:47	LOR2	Forecast	Forecast LOR2 declared due to reduced net import and slight increase in forecast demand.	1,385	876	1,385	FUM

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
20/07/2021 17:30 - 20:00	88327	18/07/2021 5:53	LOR2	Update	Update to MN 88324 due to change in effective period and forecast reserve level. The forecast LOR2 condition worsened due to decreased generation availability.	1,606	870	1,606	FUM
20/07/2021 17:30 - 20:00	88340	18/07/2021 15:13	LOR2	Update	Update to MN 88327 due to change in forecast reserve level. The forecast LOR2 condition worsened due to an increase in forecast demand and reduced net import.	1,417	752	1,417	FUM
20/07/2021 18:00 - 19:00	88348	18/07/2021 22:45	LOR2	Update	Update to MN 88340 due to change in effective period and forecast reserve level. The forecast LOR2 condition improved due to a decrease in forecast demand and increased net import.	1,325	1,120	1,325	FUM
20/07/2021 21/07/2021 18:00 - 19:00 22/07/2021 07:30 - 08:00	88407	19/07/2021 10:41	LOR2	Update / Cancelled	Update to the LOR2 conditions forecast in MN 88348. The LOR2 conditions forecast for 21/07/2021 and 22/07/2021 have been updated with changes in effective period due to decreased generation availability. The LOR2 condition forecast for 20/07/2021 has been cancelled due to increased generation and import availability.	1,498	1,192	1,498	FUM
20/07/2021 21/07/2021 18:00 - 19:30 22/07/2021 08:00 - 08:30 26/07/2021 17:30 - 20:00	88418	19/07/2021 15:43	LOR1	Update	Update to the LOR1 conditions forecast in MN 88311 and MN 88339 with changes in effective period due to a decrease in import availability. A new LOR1 is declared for 26/07/2021 due to decreased generation availability. The LOR1 condition forecast for 20/07/2021 has been cancelled due to increased generation and import availability.	1,430	1,390	1,368	LCR2
21/07/2021 17:30 - 20:00	88251	15/07/2021 15:05	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and reduced net import.	1,489	1,046	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	20001	update or cancel		Required	Available	(MW) <sup>B</sup>	set by
21/07/2021 18:00 - 19:00	88276	16/07/2021 9:03	LOR2	Forecast	Forecast LOR2 declared due to reduced net import and slight increase in forecast demand.	730	586	n/a – forecast > 72 hrs ahead	LCR
21/07/2021	88279	16/07/2021 12:03	LOR2	Cancelled	This cancelled MN 88276. Forecast LOR2 cancelled due to increased net import, increased generation availability and decrease in forecast demand.	730	1,314	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 18:00 - 19:00	88286	16/07/2021 15:03	LOR1	Update	Update to MN 88251 due to change in effective period and forecast reserve level. The forecast LOR1 condition improved due to increased generation availability.	1,430	1,322	n/a – forecast > 72 hrs ahead	LCR2
21/07/2021 17:30 - 19:00	88311	17/07/2021 15:53	LOR1	Update	Update to MN 88286 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to reduced net import and increase in forecast demand.	1,430	953	n/a – forecast > 72 hrs ahead	LCR2
21/07/2021 18:00 - 19:00	88324	18/07/2021 00:47	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability and increase in forecast demand.	730	481	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 18:00 - 19:00	88327	18/07/2021 5:53	LOR2	Update	Update to MN 88324 due to change in forecast reserve level. The forecast LOR2 condition improved due to increased net import.	730	609	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 17:30 - 18:00, 18:30 - 20:00	88339	18/07/2021 15:09	LOR1	Update	Update to MN 88311 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability and increase in forecast demand.	1,430	741	n/a – forecast > 72 hrs ahead	LCR2
21/07/2021 18:00 - 18:30	88340	18/07/2021 15:13	LOR2	Update	Update to MN 88327 due to change in effective period and forecast reserve level. The forecast LOR2 condition improved due to increased generation availability and decrease in forecast demand.	730	720	n/a – forecast > 72 hrs ahead	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
21/07/2021 18:00 - 19:00	88348	18/07/2021 22:45	LOR2	Update	Update to MN 88340 due to change in effective period and forecast reserve level. The forecast reserve level improved due to a decrease in forecast demand and increased net import.	1,316	1,052	1,316	FUM
20/07/2021 21/07/2021 18:00 - 19:00 22/07/2021 07:30 - 08:00	88407	19/07/2021 10:41	LOR2	Update / Cancelled	Update to the LOR2 conditions forecast in MN 88348. The LOR2 conditions forecast for 21/07/2021 and 22/07/2021 have been updated with changes in effective period due to decreased generation availability. The LOR2 condition forecast for 20/07/2021 has been cancelled due to increased generation and import availability.	1,498	1,192	1,498	FUM
21/07/2021 22/07/2021 07:30 - 08:00	88415	19/07/2021 15:31	LOR2	Update	Update to the LOR2 conditions forecast in MN 88407. The LOR2 condition forecast for 22/07/2021 has been updated with the same effective period and improved reserve conditions due to an increase in generation availability. The LOR2 condition forecast for 21/07/2021 has been cancelled due to increased generation availability.	1,392	1,294	1,392	FUM
20/07/2021 21/07/2021 18:00 - 19:30 22/07/2021 08:00 - 08:30 26/07/2021 17:30 - 20:00	88418	19/07/2021 15:43	LOR1	Update	Update to the LOR1 conditions forecast in MN 88311 and MN 88339 with changes in effective period due to a decrease in import availability. A new LOR1 is declared for 26/07/2021 due to decreased generation availability. The LOR1 condition forecast for 20/07/2021 has been cancelled due to increased generation and import availability.	1,430	1,390	1,368	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve requirement (MW) <sup>A</sup>		FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>₿</sup>	set by
21/07/2021 17:30 - 19:30 22/07/2021 07:00 - 09:00 22/07/2021 18:00 - 19:00	88426	19/07/2021 20:52	LOR2	Update	Update to the LOR2 conditions forecast in MN 88423 with changes in effective period and reserve condition due to an increase in generation availability.	1,421	1,129	1,421	FUM
21/07/2021 17:30 - 19:30 22/07/2021 07:00 - 09:00 22/07/2021 17:30 - 20:00	88466	20/07/2021 8:55	LOR2	Update	Update to the LOR2 conditions forecast in MN 88426 with changes in effective period due to a decrease in generation availability.	1,231	921	1,231	FUM
21/07/2021 22/07/2021 07:30 - 09:00 23/07/2021 08:30 - 09:30	88472	20/07/2021 13:42	LOR2	Update	Update to the LOR2 conditions forecast in MN 88466 with changes in effective period due to increased import availability. A new LOR2 forecast declared for 23/07/2021 due to decreased generation and import availability and an increase in forecast uncertainty. The LOR2 forecast for 21/07/2021 in MN 88466 is cancelled due to increased import availability.	1,533	1,230	1,533	FUM
21/07/2021 22/07/2021 08:00 - 08:30 23/07/2021 09:30 - 10:00 26/07/2021 17:30 - 20:00	88483	20/07/2021 14:54	LOR1	Update	Update to the LOR1 forecast in MN 88418 with worsening reserve level due to decreased generation availability. A new LOR1 forecast is declared for 23/07/2021 due to decreased generation and import availability and rising forecast uncertainty The LOR1 forecast for 21/07/2021 in MN 88418 is cancelled due to increased import and generation availability.	1,525	1,486	1,438	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
20/07/2021 18:00 - 19:00	88523	20/07/2021 16:52	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,430	1,397	976	LCR2
21/07/2021 18:00 - 19:00	88524	20/07/2021 17:02	LOR1	Correction	Correction to the LOR1 forecast in MN 88523. The corrected date is 21/07/2021.	1,430	1,397	976	LCR2
21/07/2021	88539	20/07/2021 19:18	LOR1	Cancelled	This cancelled MN 88524. The forecast LOR1 cancelled due to increased generation availability.	1,380	1,432	926	LCR2
21/07/2021 18:00 - 19:00	88540	20/07/2021 22:42	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability	1,430	1,403	824	LCR2
21/07/2021	88541	21/07/2021 2:52	LOR1	Cancelled	This cancelled MN 88540. The forecast LOR1 cancelled due to increased generation availability.	1,370	1,451	749	LCR2
21/07/2021 18:00 - 19:00	88556	21/07/2021 8:12	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,430	1,314	744	LCR2
21/07/2021	88570	21/07/2021 15:42	LOR1	Cancelled	This cancelled MN 88556. Forecast LOR1 cancelled due to increased generation availability	1,430	1,635	579	LCR2
21/07/2021 18:00 - 19:00	88575	21/07/2021 16:41	LOR1	Forecast	Forecast LOR1 declared due to decreased generation and import availability	1,430	1,170	473	LCR2
21/07/2021 17:30 - 19:00	88594	21/07/2021 17:46	LOR1	Actual	Actual LOR1 declared. Decreased generation and import availability led to actual LOR1 conditions.	1,400	1,047	213	LCR2
21/07/2021 18:00 - 20:00	88612	21/07/2021 19:22	LOR2	Actual	Actual LOR2 declared. Decreased generation availability led the ongoing actual LOR1 conditions to worsen into LOR2.	720	673	213	LCR
21/07/2021	88622	21/07/2021 20:21	LOR2	Cancelled	This cancelled MN 88612. The actual LOR2 was cancelled when the effective period elapsed.	768	2,228	328	LCR
21/07/2021	88623	21/07/2021 20:36	LOR1	Cancelled	This cancelled MN 88594. The actual LOR1 was cancelled when the effective period elapsed.	1,458	2,107	213	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
22/07/2021 17:30 - 20:00	88251	15/07/2021 15:05	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,509	1,142	n/a – forecast > 72 hrs ahead	LCR2
22/07/2021 17:30 - 20:00	88286	16/07/2021 15:03	LOR1	Update	Update to MN 88251 due to change in forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability, reduced net import and increase in forecast demand.	1,430	806	n/a – forecast > 72 hrs ahead	LCR2
22/07/2021 18:00 - 19:30	88311	17/07/2021 15:53	LOR1	Update	Update to MN 88286 due to change in effective period and forecast reserve level. The forecast LOR1 condition improved due to increased generation availability.	1,430	1,290	n/a – forecast > 72 hrs ahead	LCR2
22/07/2021 17:30 - 20:00	88339	18/07/2021 15:09	LOR1	Update	Update to MN 88311 due to change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to reduced net import and increase in forecast demand.	1,430	782	n/a – forecast > 72 hrs ahead	LCR2
21/07/2021 22/07/2021 07:30 - 08:00	88415	19/07/2021 15:31	LOR2	Update	Update to the LOR2 conditions forecast in MN 88407. The LOR2 condition forecast for 22/07/2021 has been updated with the same effective period and improved reserve conditions due to an increase in generation availability. The LOR2 condition forecast for 21/07/2021 has been cancelled due to increased generation availability.	1,392	1,294	1,392	FUM
20/07/2021 21/07/2021 18:00 - 19:30 22/07/2021 08:00 - 08:30 26/07/2021 17:30 - 20:00	88418	19/07/2021 15:43	LOR1	Update	Update to the LOR1 conditions forecast in MN 88311 and MN 88339 with changes in effective period due to a decrease in import availability. A new LOR1 is declared for 26/07/2021 due to decreased generation availability. The LOR1 condition forecast for 20/07/2021 has been cancelled due to increased generation and import availability.	1,430	1,390	1,368	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>₿</sup>	set by
21/07/2021 17:30 - 19:30 22/07/2021 07:00 - 09:00 22/07/2021 18:00 - 19:00	88426	19/07/2021 20:52	LOR2	Update	Update to the LOR2 conditions forecast in MN 88423 with changes in effective period and reserve condition due to an increase in generation availability.	1,421	1,129	1,421	FUM
21/07/2021 17:30 - 19:30 22/07/2021 07:00 - 09:00 22/07/2021 17:30 - 20:00	88466	20/07/2021 8:55	LOR2	Update	Update to the LOR2 conditions forecast in MN 88426 with changes in effective period due to a decrease in generation availability.	1,231	921	1,231	FUM
21/07/2021 22/07/2021 07:30 - 09:00 23/07/2021 08:30 - 09:30	88472	20/07/2021 13:42	LOR2	Update	Update to the LOR2 conditions forecast in MN 88466 with changes in effective period due to increased import availability. A new LOR2 forecast declared for 23/07/2021 due to decreased generation and import availability and an increase in forecast uncertainty. The LOR2 forecast for 21/07/2021 in MN 88466 is cancelled due to increased import availability.	1,533	1,230	1,533	FUM
22/07/2021 07:30 - 08:00 08:30 - 09:00 23/07/2021 08:30 - 09:30	88478	20/07/2021 14:53	LOR2	Update	Update to the LOR2 conditions forecast in MN 88472 with changes in effective period and an improvement of reserve levels due to an increase of import availability.	1,414	1,326	1,414	FUM
22/07/2021 08:30 - 09:00 23/07/2021 08:30 - 10:00	88543	21/07/2021 6:59	LOR2	Update	Update to MN 88478 with a change in effective period and worsening of reserve level due to a decrease in generation and import availability.	1,430	1,264	1,284	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	20001	update or cancel		Required	Available	(MW) <sup>B</sup>	set by
23/07/2021 08:00 - 10:30 16:00 - 16:30 17:00 - 20:30 26/07/2021 18:00 - 19:00	88559	21/07/2021 13:02	LOR2	Update	Update to MN 88557. The effective period for the LOR2 forecast on the morning peak of 23/07/2021 is changed due to decreased generation availability. A new forecast LOR2 has been declared for the evening peak of 23/07/2021 due to decreased generation availability. A new forecast LOR2 has been declared for 26/07/2021 due to decreased generation availability.	1,583	932	1,583	FUM
22/07/2021 17:30 - 20:30	88561	21/07/2021 13:17	LOR2	Forecast	Forecast LOR2 declared due to a decrease in generation and import availability.	1,134	486	1,134	FUM
22/07/2021 07:30 - 09:00 17:00 - 21:00	88563	21/07/2021 13:28	LOR1	Forecast	Forecast LOR1 declared due to a decrease in generation and import availability.	1,430	1261	1,095	LCR2
22/07/2021	88571	21/07/2021 16:14	LOR2	Cancelled	This cancelled MN 88561. Forecast LOR2 cancelled due to increased generation and import availability	936	1,757	936	FUM
22/07/2021	88574	21/07/2021 16:25	LOR1	Cancelled	This cancelled MN 88563. Forecast LOR1 cancelled due to increased generation and import availability	1,450	1,757	936	LCR2
22/07/2021 08:30 - 09:00	88576	21/07/2021 16:51	LOR1	Forecast	Forecast LOR1 declared due to decreased generation and import availability.	1,430	1,043	866	LCR2
22/07/2021 08:30 - 09:00	88645	21/07/2021 22:47	LOR1	Forecast	Forecast LOR1 declared due to decreased generation and import availability.	1,400	1,249	672	LCR2
22/07/2021 18:00 - 19:00	88647	22/07/2021 5:30	LOR1	Forecast	Forecast LOR1 declared due to decreased import availability and increased demand forecast.	1,451	1,319	775	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
22/07/2021 08:30 - 09:00	88648	22/07/2021 6:11	LOR2	Forecast	Update to MN 88645. Forecast LOR1 worsenend to LOR2 due to decreased generation and import availability and change in LOR2 trigger level due to the reclassification of multiple generating units in NSW.	1,330	1,125	593	LCR
22/07/2021	88650	22/07/2021 6:21	LOR2	Correction	Correction to MN 88648. LOR1 written instead of LOR2.	1,330	1,125	593	LCR
22/07/2021	88677	22/07/2021 7:48	LOR2	Cancelled	This cancelled MN 88650. Forecast LOR2 cancelled due to increased import and generation availability	1,105	1,686	756	LCR
22/07/2021 09:00 - 10:00	88715	22/07/2021 9:14	LOR1	Actual	Actual LOR1 declared. Decreased generation and import availability, and reclassification of 4 Liddell units as a credible contingency led to actual LOR1 conditions.	1,400	1,099	240	LCR2
22/07/2021	88716	22/07/2021 9:59	LOR1	Cancelled	This cancelled MN 88715. The actual LOR1 has been cancelled due to increased generation availability and the end of reclassification of Liddell units as a credible contingency.	1,400	1,572	751	LCR2
22/07/2021 18:00 - 19:00	88719	22/07/2021 11:47	LOR1	Forecast	Update to MN 88647. LOR1 conditions forecast for the evening peak worsened due to decreased generation availability.	1,469	1,301	690	LCR2
22/07/2021 16:30 - 17:00	88735	22/07/2021 16:49	LOR1	Actual	Actual LOR1 declared. Decreased generation and import availability led to actual LOR1 conditions.	1,430	974	213	LCR2
22/07/2021 17:00 - 17:30	88736	22/07/2021 17:15	LOR2	Actual	Actual LOR2 declared. Decreased generation and import availability led to actual LOR2 conditions.	720	513	213	LCR
22/07/2021	88737	22/07/2021 17:39	LOR2	Cancelled	This cancelled MN 88736. Actual LOR2 was cancelled when the effective period elapsed.	720	1218	360	LCR
22/07/2021	88738	22/07/2021 17:40	LOR1	Cancelled	This cancelled MN 88735. Actual LOR1 was cancelled when the effective period elapsed.	1,470	1,711	453	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>₿</sup>	set by
23/07/2021 08:00 - 10:30 16:00 - 16:30 17:00 - 20:30 26/07/2021 18:00 - 19:00	88559	21/07/2021 13:02	LOR2	Update	Update to MN 88557. The effective period for the LOR2 forecast on the morning peak of 23/07/2021 is changed due to decreased generation availability. A new forecast LOR2 has been declared for the evening peak of 23/07/2021 due to decreased generation availability. A new forecast LOR2 has been declared for 26/07/2021 due to decreased generation availability.	1,583	932	1,583	FUM
23/07/2021 08:30 - 10:00 18:00 - 18:30 26/07/2021 18:00 - 19:00	88564	21/07/2021 14:35	LOR2	Update	Update to MN 88559. The effective periods for the forecast LOR2 conditions on 23/07/2021 and 26/07/2021 are changed due to an increase in generation availability.	1,431	1,063	1,431	FUM
23/07/2021 17:30 - 18:00 26/07/2021 17:30 - 18:00 19:00 - 20:00	88568	21/07/2021 14:58	LOR1	Update	Update to MN 88483. The effective periods for the forecast LOR1 conditions on 23/07/2021 and 26/07/2021 are changed due to an increase in generation availability.	1,450	1,408	1,397	LCR2
23/07/2021 26/07/2021 18:00 - 19:00	88583	21/07/2021 17:39	LOR2	Update	Update to MN 88564. The LOR2 forecast for 23/07/2021 has been cancelled due to increased generation availability. The LOR2 forecast for 26/07/2021 has been updated due to a decrease in generation availability.	730	645	n/a – forecast > 72 hrs ahead	LCR
23/07/2021 26/07/2021	88643	21/07/2021 21:23	LOR2	Cancelled	This cancelled MN 88583. The forecast LOR2 conditions have been cancelled due to increased generation availability.	730	798	n/a – forecast > 72 hrs ahead	LCR
25/07/2021 18:00 - 18:30	88754	23/07/2021 7:35	LOR2	Forecast	Forecast LOR2 declared due to an increase in forecast uncertainty.	1,601	1,554	1,601	FUM

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time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>₿</sup>	set by
25/07/2021	88755	23/07/2021 8:27	LOR2	Cancelled	This cancelled MN 88754. The forecast LOR2 condition cancelled due to increased imports and generation availability	1,552	1,597	1,552	FUM
26/07/2021 17:30 - 19:30	88732	22/07/2021 14:37	LOR1	Update	The LOR1 forecast in MN 88568 has been updated due to a change in effective period due to decreased generation availability.	1,430	1,023	n/a – forecast > 72 hrs ahead	LCR2
26/07/2021	88763	23/07/2021 14:32	LOR1	Cancelled	This cancelled MN 88732. The forecast LOR1 condition cancelled due to increased generation availability.	1,524	2,351	n/a – forecast > 72 hrs ahead	LCR2
29/07/2021 07:30 - 08:00	89102	29/07/2021 2:56	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,320	1,289	614	LCR2
29/07/2021	89104	29/07/2021 5:37	LOR1	Cancelled	This cancelled MN 89104. The forecast LOR1 condition cancelled due to increased generation availability	1,447	2,163	545	LCR2
01/08/2021 17:30 - 19:30	89139	31/07/2021 11:39	LOR2	Forecast	LOR2 forecast for SA region, not NSW. Corrected in MN 89140.	383	140	383	FUM
Queensland re	gion								
06/07/2021 18:00 - 18:30	87922	6/07/2021 18:09	LOR1	Actual	Actual LOR1 declared due to decrease in net import.	1,280	1,109	238	LCR2
6/07/2021	87931	6/07/2021 18:22	LOR1	Cancelled	This cancelled MN 87922. LOR1 cancelled as condition cleared after effective period.	1,280	1,391	238	LCR2
12/07/2021 18:00 - 19:00	88020	12/07/2021 5:38	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and net import.	1,166	1,151	426	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
12/07/2021 17:30 - 20:00	88037	12/07/2021 12:22	LOR1	Update	Update to MN 88020. Effective period in forecast LOR1 updated due to decreased generation availability and net import.	1,350	837	428	LCR2
12/07/2021 17:30 - 19:30	88040	12/07/2021 15:26	LOR1	Update	Update to MN 88037. Effective period in forecast LOR1 updated due to slightly increased net import and increased generation availability.	1,210	1,089	404	LCR2
12/07/2021 17:00 - 19:00	88043	12/07/2021 17:28	LOR1	Actual	Actual LOR1 declared due to decreased generation availability and increased demand	1,350	820	238	LCR2
12/07/2021	88067	12/07/2021 19:19	LOR1	Cancelled	This cancelled MN 88043. LOR1 cancelled cancelled as condition cleared after effective period.	1,257	1303	160	LCR2
19/07/2021 17:30 - 20:00	88112	13/07/2021 15:02	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and increased demand	1,163	804	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 17:30 - 20:00	88249	15/07/2021 15:06	LOR1	Update	Update to MN 88112. Effective period in forecast LOR1 updated due to slight increase in net import	1,163	847	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 17:30 - 19:30	88277	16/07/2021 9:05	LOR2	Forecast	Forecast LOR2 declared due to decreased net import, decreased generation and increased demand	720	571	n/a – forecast > 72 hrs ahead	LCR
19/07/2021 17:30 - 19:00	88278	16/07/2021 12:02	LOR2	Update	Update to MN 88277. Effective period in forecast LOR2 updated due to a slightly increased net import.	720	590	n/a – forecast > 72 hrs ahead	LCR
19/07/2021 7:00 - 7:30	88285	16/07/2021 15:05	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and decreased generation	1,163	1,056	n/a – forecast > 72 hrs ahead	LCR2
19/07/2021 19:00 - 20:30	88285	16/07/2021 15:05	LOR1	Update	Update to MN 88249. Effective period in forecast LOR1 updated due to slightly decreased generation and net import.	1,163	736	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
19/07/2021 17:30 - 19:30	88304	17/07/2021 8:53	LOR2	Update	Update to MN 88278. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and increased demand	720	438	654	LCR
19/07/2021 7:00 - 7:30	88312	17/07/2021 16:02	LOR1	Update	Update to MN 88285. Effective period in forecast LOR1 updated due to slightly decreased generation and net import.	1,163	1,015	674	LCR2
19/07/2021 17:00 - 17:30	88312	17/07/2021 16:02	LOR1	Update	Update to MN 88285. Effective period in forecast LOR1 updated due to slightly decreased generation and net import.	1,163	1,117	674	LCR2
19/07/2021 19:30 - 20:30	88312	17/07/2021 16:02	LOR1	Update	Update to MN 88285. Effective period in forecast LOR1 updated due to decreased net import, decreased generation and increased demand	1,163	835	674	LCR2
19/07/2021 17:30 - 19:30	88313	17/07/2021 16:07	LOR2	Update	Update to MN 88304. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and increased demand	720	507	684	LCR
19/07/2021 17:30 - 19:30	88323	18/07/2021 0:46	LOR2	Update	Update to MN 88313. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and increased demand	720	443	671	LCR
19/07/2021 17:30 - 19:00	88328	18/07/2021 5:54	LOR2	Update	Update to MN 88323. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and increased demand	720	538	643	LCR
19/07/2021 7:00 - 7:30	88333	18/07/2021 13:25	LOR1	Forecast	Forecast LOR1 declared due to decreased net import.	1,163	1,016	623	LCR2
19/07/2021 17:00 - 17:30	88333	18/07/2021 13:25	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and decreased generation	1,163	1,115	607	LCR2
19/07/2021 19:30 - 20:30	88333	18/07/2021 13:25	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and decreased generation	1,163	818	617	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
19/07/2021 17:30 - 19:30	88334	18/07/2021 13:28	LOR2	Forecast	Forecast LOR2 declared due to decreased net import and decreased generation	720	501	613	LCR
19/07/2021 19:00 - 20:30	88342	18/07/2021 17:47	LOR1	Update	Update to MN 88333. Effective period in forecast LOR1 updated due to decreased net import, decreased generation and increased demand	1,163	781	533	LCR2
19/07/2021 17:30 - 19:00	88343	18/07/2021 17:48	LOR2	Update	Update to MN 88334. Effective period in forecast LOR2 updated due to slightly increased net import and decreased FUM .	720	598	548	LCR
19/07/2021 17:30 - 19:00	88362	19/07/2021 6:51	LOR2	Update	Update to MN 88343. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and decreased FUM .	720	309	423	LCR
19/07/2021 19:00 - 19:30	88363	19/07/2021 6:53	LOR1	Update	Update to MN 88342. Effective period in forecast LOR1 updated due to increased generation and increased net import.	1,163	844	426	LCR2
19/07/2021 17:30 - 19:30	88395	19/07/2021 8:29	LOR1	Update	Update to MN 88363. Effective period in forecast LOR1 updated due to increased generation and increased net import.	1,116	953	407	LCR2
19/07/2021 18:00 - 18:30	88402	19/07/2021 8:55	LOR1	Update	Update to MN 88395. Effective period in forecast LOR1 updated due to increased generation and increased net import.	1,088	1,076	419	LCR2
19/07/2021	88405	19/07/2021 9:57	LOR2	Cancelled	Cancellation of MN 88362. LOR2 cancelled due to increased generation.	1,086	1,125	404	LCR
19/07/2021	88408	19/07/2021 10:17	LOR1	Cancelled	This cancelled MN 88402. LOR1 cancelled due to increased generation	1,086	1,125	404	LCR2
19/07/2021	88406	19/07/2021 10:40	LOR2	Cancelled	This cancelled MN 88338 and 88347. LOR2 cancelled due to increased generation	1,086	1,125	404	LCR2
19/07/2021 18:00 - 19:00	88409	19/07/2021 11:44	LOR1	Forecast	Forecast LOR1 declared due to decreased generation	1,102	1,052	425	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
19/07/2021	88411	19/07/2021 14:12	LOR1	Cancelled	This cancelled MN 88409. LOR1 cancelled due to increased generation	1,067	1,080	405	LCR2
19/07/2021	88416	19/07/2021 15:33	LOR1	Cancelled	This cancelled MN 88337. LOR1 cancelled due to increased generation	1,071	1,093	600	LCR2
20/07/2021 18:30 - 19:00	88112	13/07/2021 15:02	LOR1	Forecast	Forecast LOR1 declared due to decreased net import	1,163	1,148	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 17:30 - 20:00	88249	15/07/2021 15:06	LOR1	Update	Update to MN 88112. Effective period in forecast LOR1 updated due to decreased generation and net import	1,163	915	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 18:00 - 19:00	88277	16/07/2021 9:05	LOR2	Forecast	Forecast LOR2 declared due to decreased net import and decreased available generation.	720	619	n/a – forecast > 72 hrs ahead	LCR
20/07/2021 18:00 - 19:00	88278	16/07/2021 12:02	LOR2	Update	Update to MN 88277. Effective period in forecast LOR2 updated due to slight increase in net import .	720	622	n/a – forecast > 72 hrs ahead	LCR
20/07/2021 17:00 - 18:00	88285	16/07/2021 15:05	LOR1	Update	Update to MN 88249. Effective period in forecast LOR1 updated due to decreased generation and net import	1,163	862	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 19:00 - 20:30	88285	16/07/2021 15:05	LOR1	Update	Update to MN 88249. Effective period in forecast LOR1 updated due to decreased generation and net import.	1,163	773	n/a – forecast > 72 hrs ahead	LCR2
20/07/2021 17:30 - 20:00	88304	17/07/2021 8:53	LOR2	Update	Update to MN 88278. Effective period in forecast LOR2 updated due to decreased net import and decreased available generation.	720	443	n/a – forecast > 72 hrs ahead	LCR
20/07/2021 20:00 - 21:00	88312	17/07/2021 16:02	LOR1	Update	Update to MN 88285. Effective period in forecast LOR1 updated due to slightly decreased generation and net import.	1,163	783	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	cast, Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel		Required	Available	(MW) <sup>₿</sup>	set by
20/07/2021 17:30 - 20:00	88313	17/07/2021 16:07	LOR2	Update	Update to MN 88304. Effective period in forecast LOR2 updated due to decreased net import and decreased available generation.	720	430	n/a – forecast > 72 hrs ahead	LCR
20/07/2021 17:30 - 19:30	88323	18/07/2021 0:46	LOR2	Update	Update to MN 88313. Effective period in forecast LOR2 updated due to decreased net import and decreased available generation.	720	463	678	LCR
20/07/2021 18:00 - 19:00	88328	18/07/2021 5:54	LOR2	Update	Update to MN 88323. Effective period in forecast LOR2 updated due to decreased net import, decreased available generation and slightly increased FUM	720	598	687	LCR
20/07/2021 17:30 - 18:00	88337	18/07/2021 14:46	LOR1	Update	Update to MN 88312. Effective period in forecast LOR1 updated due to decreased net import and decreased available generation.	1,163	835	676	LCR2
20/07/2021 19:00 - 20:30	88337	18/07/2021 14:46	LOR1	Update	Update to MN 88312. Effective period in forecast LOR1 updated due to decreased net import, decreased available generation and slightly decreased FUM.	1,163	603	661	LCR2
20/07/2021 18:00 - 19:00	88338	18/07/2021 14:47	LOR2	Update	Update to MN 88328. Effective period in forecast LOR2 updated due to slightly increased net import.	720	610	591	LCR
20/07/2021 18:00 - 19:00	88347	18/07/2021 22:43	LOR2	Update	Update to MN 88338. Effective period in forecast LOR2 updated due to increased net import.	720	631	719.9 <sup>5</sup>	LCR
20/07/2021 18:30 - 19:00	88425	19/07/2021 17:56	LOR1	Forecast	Forecast LOR1 declared due to decreased generation and increased demand.	1,084	1,077	552	LCR2
20/07/2021 18:00 - 19:30	88444	20/07/2021 7:31	LOR1	Update	Update to MN 88425. Effective period in forecast LOR1 updated due to slightly decreased generation and increased demand	1,064	935	423	LCR2

 $<sup>^{\</sup>rm 5}$  This FUM value is intentionally not rounded up to indicate that the reserve was not set by the FUM.

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>B</sup>	set by
20/07/2021	88471	20/07/2021 12:16	LOR1	Cancelled	This cancelled MN 88444. LOR1 cancelled due to increased generation.	1,057	1,201	422	LCR2
20/07/2021	88473	20/07/2021 13:40	LOR2	Cancelled	This cancelled MN 88467. LOR2 cancelled due to increased generation	1,430	1,482	1,205	LCR
20/07/2021 20:30 - 21:00	88537	20/07/2021 18:13	LOR1	Forecast	Forecast LOR1 declared due to decreased generation.	1,083	1,001	369	LCR2
20/07/2021	88538	20/07/2021 19:19	LOR1	Cancelled	This cancelled MN 88537. LOR1 cancelled due to increased generation.	1,065	1,172	3112	LCR2
21/07/2021 18:00 - 19:00	88277	16/07/2021 9:05	LOR2	Forecast	Forecast LOR2 declared due to decreased net import, decreased generation and increased demand	720	586	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 18:00 - 19:00	88312	17/07/2021 16:02	LOR1	Update	Update to MN 88285. Effective period in forecast LOR1 updated due to decreased net import, decreased generation and increased demand	1,163	879	n/a – forecast > 72 hrs ahead	LCR2
21/07/2021 18:00 - 19:00	88323	18/07/2021 0:46	LOR2	Update	Update to MN 88313. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and increased demand	720	443	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 18:00 - 19:00	88328	18/07/2021 5:54	LOR2	Update	Update to MN 88323. Effective period in forecast LOR2 updated due to decreased net import, decreased generation and increased demand	720	609	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 17:30 - 18:00	88337	18/07/2021 14:46	LOR1	Update	Update to MN 88312. Effective period in forecast LOR1 updated due to decreased net import, decreased generation and increased demand	1,163	1,043	n/a – forecast > 72 hrs ahead	LCR2
21/07/2021 18:30 - 19:30	88337	18/07/2021 14:46	LOR1	Update	Update to MN 88312. Effective period in forecast LOR1 updated due to decreased net import, decreased generation and increased demand	1,163	741	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel		Required	Available	(MW) <sup>B</sup>	set by
21/07/2021 18:00 - 18:30	88338	18/07/2021 14:47	LOR2	Update	Update to MN 88328. Effective period in forecast LOR2 updated due to slightly increased net import.	720	719	n/a – forecast > 72 hrs ahead	LCR
21/07/2021 17:30 - 19:30	88424	19/07/2021 16:42	LOR2	Forecast	Forecast LOR2 declared due to decreased net import and increased demand.	720	460	685	LCR
21/07/2021 17:30 - 20:30	88467	20/07/2021 8:57	LOR2	Update	Update to MN 88424. Effective period in forecast LOR2 updated due to decreased net import and increased demand	720	315	637	LCR
21/07/2021 18:30 - 19:00	88542	21/07/2021 6:17	LOR1	Forecast	Forecast LOR1 declared due to increased generation.	1,092	1,085	426	LCR2
21/07/2021 17:30 - 19:00	88598	21/07/2021 17:53	LOR1	Actual	Actual LOR1 declared due to decreased net import and decreased available generation.	1,058	720	268	LCR2
21/07/2021 18:00 - 19:00	88606	21/07/2021 18:14	LOR2	Actual	Actual LOR2 declared due to decreased available generation and decreased net import.	720	593	160	LCR
21/07/2021	88626	21/07/2021 20:29	LOR2	Cancelled	This cancelled MN 88606. LOR2 cancelled as condition cleared after effective period.	1,053	1357	267	LCR
21/07/2021	88625	21/07/2021 20:37	LOR1	Cancelled	This cancelled MN 88598. LOR1 cancelled as condition cleared after effective period.	1,063	1,475	160	LCR2
21/07/2021	88714	22/07/2021 10:30	LOR2	Cancelled	This cancelled MN 88565 for 21/07/2021. LOR2 cancelled as condition cleared after effective period.	435	669	n/a – forecast > 72 hrs ahead	LCR
22/07/2021 18:00 - 19:30	88285	16/07/2021 15:05	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and decreased generation	1,163	806	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel		Required	Available	(MW) <sup>B</sup>	set by
22/07/2021 18:00 - 19:30	88312	17/07/2021 16:02	LOR1	Update	Update to MN 88285. Effective period in forecast LOR1 updated due to increased net import .	1,163	1033	n/a – forecast > 72 hrs ahead	LCR2
22/07/2021 18:00 - 19:30	88337	18/07/2021 14:46	LOR1	Update	Update to MN 88312. Effective period in forecast LOR1 updated due to decreased net import.	1,163	865	n/a – forecast > 72 hrs ahead	LCR2
22/07/2021 07:00 - 07:30	88424	19/07/2021 16:42	LOR2	Forecast	Forecast LOR2 declared due to decreased net import.	711	664	711	FUM
22/07/2021 17:30 - 20:00	88424	19/07/2021 16:42	LOR2	Forecast	Forecast LOR2 declared due to decreased net import.	720	465	n/a – forecast > 72 hrs ahead	LCR
22/07/2021 17:30 - 20:00	88467	20/07/2021 8:57	LOR2	Update	Update to MN 88424. Effective period in forecast LOR2 updated due to increased net import.	720	432	658	LCR
22/07/2021 17:30 - 19:00	88562	21/07/2021 13:08	LOR2	Forecast	Forecast LOR2 declared due to decreased net import and increased demand.	720	479	614	LCR
22/07/2021 18:00 - 19:00	88566	21/07/2021 13:48	LOR2	Update	Update to MN 88562. Effective period in forecast LOR2 updated due to increased net import	720	602	612	LCR
22/07/2021 17:30 – 18:00, 19:00 - 20:00	88567	21/07/2021 13:50	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and increased demand.	1,163	832	607	LCR2
22/07/2021	88572	21/07/2021 16:12	LOR2	Cancelled	This cancelled MN 88566. LOR2 cancelled due to increased generation and increased net import.	1,037	1,213	542	LCR
22/07/2021	88573	21/07/2021 16:24	LOR1	Cancelled	This cancelled MN 88567. LOR1 cancelled due to increased generation and increased net import.	1,037	1,213	542	LCR
23/07/2021 17:30 - 18:00	88560	21/07/2021 13:03	LOR2	Forecast	Forecast LOR2 declared due to decreased net import and increased demand.	661	645	661	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value (MW) <sup>B</sup>	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
23/07/2021	88565	21/07/2021 14:36	LOR2	Cancelled	This cancelled MN 88560 for 23/07/2021. LOR2 cancelled due to increased generation	870	1,124	686	LCR
23/07/2021 17:30 - 21:00	88770	23/07/2021 16:04	LOR1	Forecast	Forecast LOR1 declared due to decreased generation and increased demand.	1,043	963	405	LCR2
23/07/2021 17:30 - 21:30	88771	23/07/2021 17:21	LOR1	Update	Update to MN 88770. Effective period in forecast LOR1 updated due to decreased generation and decreased net import.	1,061	751	363	LCR2
23/07/2021	88789	23/07/2021 18:10	LOR1	Cancelled	This cancelled MN 88771. LOR1 cancelled due to increased net import.	1,052	1,058	356	LCR2
26/07/2021 18:00 - 19:00	88417	19/07/2021 15:36	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and increased demand.	870	591	n/a – forecast > 72 hrs ahead	LCR2
26/07/2021 17:30 - 19:30	88481	20/07/2021 14:52	LOR1	Update	Update to MN 88417. Effective period in forecast LOR1 updated due to decreased net import.	870	457	n/a – forecast > 72 hrs ahead	LCR2
26/07/2021 18:00 - 19:00	88560	21/07/2021 13:03	LOR2	Forecast	Forecast LOR2 declared due to decreased net import and increased demand.	435	382	n/a – forecast > 72 hrs ahead	LCR
26/07/2021 18:00 - 19:00	88565	21/07/2021 14:36	LOR2	Update	Update to MN 88560. Effective period in forecast LOR2 updated due to decreased net import and increased demand.	435	371	n/a – forecast > 72 hrs ahead	LCR
26/07/2021 17:30 - 18:00	88569	21/07/2021 14:59	LOR1	Update	Update to MN 88481. Effective period in forecast LOR1 updated due to increased net import.	870	623	n/a – forecast > 72 hrs ahead	LCR2
26/07/2021 19:00 - 19:30	88569	21/07/2021 14:59	LOR1	Update	Update to MN 88481. Effective period in forecast LOR1 updated due to decreased net import.	870	670	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
26/07/2021	88642	21/07/2021 21:07	LOR2	Cancelled	This cancelled MN 88560. LOR2 cancelled due to increased net import.	870	1393	637	LCR
26/07/2021 18:00 - 19:00	88733	22/07/2021 14:38	LOR1	Update	Update to MN 88569. Effective period in forecast LOR1 updated due to increased net import.	870	676	n/a – forecast > 72 hrs ahead	LCR2
26/07/2021	88765	23/07/2021 14:33	LOR1	Cancelled	This cancelled MN 88733. Effective period in forecast LOR1 cancelled due to increased net import.	870	901	n/a – forecast > 72 hrs ahead	LCR2
26/07/2021 18:00 - 19:00	88846	25/07/2021 12:53	LOR1	Forecast	Forecast LOR1 declared due to decreased net import and decreased available generation.	870	843	614	LCR2
26/07/2021 17:30 - 19:00	88858	25/07/2021 16:47	LOR1	Update	Update to MN 88846. Effective period in forecast LOR1 updated due to increased net import.	870	774	528	LCR2
26/07/2021	88868	26/07/2021 9:11	LOR1	Cancelled	This cancelled MN 88858. Effective period in forecast LOR1 cancelled due to increased net import.	868	965	405	LCR2
26/07/2021 18:00 - 19:00	88964	26/07/2021 16:41	LOR1	Forecast	Forecast LOR1 declared due to slightly decreased generation and increased demand.	1,076	1,067	336	LCR2
26/07/2021	88965	26/07/2021 17:15	LOR1	Cancelled	This cancelled MN 88964. Effective period in forecast LOR1 updated due to increased generation.	876	993	238	LCR2
26/07/2021 18:00 - 19:00	88966	26/07/2021 17:53	LOR1	Forecast	Forecast LOR1 declared due to decreased generation.	1,024	969	238	LCR2
26/07/2021 18:00 - 19:00	88967	26/07/2021 18:18	LOR1	Actual	Actual LOR1 declared due to decreased generation.	923	845	160	LCR2
26/07/2021	88968	26/07/2021 19:13	LOR1	Cancelled	This cancelled MN 88967. LOR1 cancelled as condition cleared after effective period.	870	960	160	LCR2
27/07/2021 7:00 - 7:30	88871	26/07/2021 12:54	LOR1	Forecast	Forecast LOR1 declared due to increased demand.	870	768	561	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
27/07/2021	88938	26/07/2021 15:14	LOR1	Cancelled	This cancelled MN 88871. LOR1 cancelled due to increased net import.	870	1,207	500	LCR2
30/08/2021 18:00 – 18:30	89962	26/08/2021 14:24	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	902	901	n/a – forecast > 72 hrs ahead	LCR2
30/08/2021	89973	27/08/2021 14:29	LOR1	Cancelled	This cancelled MN 89962. The forecast LOR1 condition cancelled due to increased generation availability.	902	1,000	n/a – forecast > 72 hrs ahead	LCR2
30/08/2021 18:00 - 19:00	89986	28/08/2021 14:16	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	902	889	674	LCR2
30/08/2021 18:00 - 19:00	89995	29/08/2021 12:56	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	990	959	613	LCR2
30/08/2021 18:00 - 19:00	90007	30/08/2021 8:10	LOR1	Update	Update to MN 89995 due to the change of the forecast reserve. The forecast LOR1 condition worsened due to the decreased generation availability and slight increase in forecast demand.	902	851	459	LCR2
30/08/2021	90033	30/08/2021 16:43	LOR1	Cancelled	This cancelled MN 90007. The forecast LOR1 condition cancelled due to increased generation availability.	903	934	337	LCR2
30/08/2021 18:00 - 19:00	90046	30/08/2021 17:57	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	909	860	268	LCR2
30/08/2021 18:00 - 19:00	90047	30/08/2021 18:14	LOR1	Actual	Actual LOR1 declared. Decrease in generation availability caused an actual LOR1 condition.	902	854	160	LCR2
30/08/2021	90048	30/08/2021 19:32	LOR1	Cancelled	This cancelled MN 90047. Actual LOR1 was cancelled when the effective period elapsed.	976	1162	160	LCR2
20/09/2021 17:30 - 18:00	90800	20/09/2021 15:22	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,053	820	358	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Lever	update or cancel		Required	Available	(MW) <sup>B</sup>	set by
20/09/2021	90815	20/09/2021 17:45	LOR1	Cancelled	This cancelled MN 90800. The forecast LOR1 condition cancelled due to increased generation availability.	1,087	1,246	160	LCR2
20/09/2021 18:30 - 19:00	90819	20/09/2021 18:17	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	1,086	1,022	238	LCR2
20/09/2021	90831	20/09/2021 19:02	LOR1	Cancelled	This cancelled MN 90819. Forecast LOR1 was cancelled when the effective period elapsed. Actual LOR1 did not eventuate as demand was lower than what was forecasted.	1032	1782	160	LCR2
South Australic	region								
29/07/2021 07:30 - 09:00	89064	28/07/2021 15:49	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	450	435	231	LCR2
29/07/2021	89076	28/07/2021 16:22	LOR1	Cancelled	This cancelled MN 89064. The forecast LOR1 condition cancelled due to increased generation availability.	498	575	229	LCR2
01/08/2021 17:30 - 19:30	89140	31/07/2021 11:48	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability and increase in FUM (FUM was setting the LOR2 trigger level).	383	140	383	FUM
1/08/2021	89141	31/07/2021 12:25	LOR2	Cancelled	This cancelled MN 89140. The forecast LOR1 condition cancelled due to increased generation availability.	357	408	357	FUM
1/08/2021 17:30 - 19:30	89142	31/07/2021 12:58	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and reduced net import.	393	371	340	LCR2
1/08/2021	89145	31/07/2021 14:26	LOR1	Cancelled	This cancelled MN 89142. The forecast LOR1 condition cancelled due to increased generation availability.	464	471	332	LCR2
12/08/2021 07:30 - 08:00	89360	10/08/2021 14:01	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability.	390	373	390	FUM

Effective	data and Natica IS		Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
12/08/2021	89362	10/08/2021 14:52	LOR2	Cancelled	This cancelled MN 89360. The forecast LOR2 condition cancelled due to increased generation availability.	379	702	379	FUM
25/08/2021 18:00 - 21:30	89655	18/08/2021 15:22	LOR2	Forecast	Forecast LOR2 declared due to reduced net import and decreased generation availability.	250	66	n/a – forecast > 72 hrs ahead	LCR
25/08/2021 09:00 - 10:30	89654	18/08/2021 15:27	LOR1	Forecast	Forecast LOR1 declared due to reduced net import.	450	271	n/a – forecast > 72 hrs ahead	LCR2
25/08/2021 17:00 - 18:00, 21:30 - 01:00	89654	18/08/2021 15:27	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and decreased generation availability.	450	258	n/a – forecast > 72 hrs ahead	LCR2
25/08/2021 18:00 - 21:30	89673	19/08/2021 10:45	LOR2	Update	Update to MN 89655. No significant change in the LOR2 effective period. MN Updated to include latest time of intervention.	250	76	n/a – forecast > 72 hrs ahead	LCR
25/08/2021 09:00 - 09:30	89675	19/08/2021 14:51	LOR1	Update	Update to MN 89654 due to the change in effective period. The effective period shortened and forecast LOR1 condition improved due to increased net import.	450	338	n/a – forecast > 72 hrs ahead	LCR2
25/08/2021 17:00 - 18:00, 22:00 - 01:30	89675	19/08/2021 14:51	LOR1	Update	Update to MN 89654 due to the change in effective period. No significant change in the LOR1 condition.	470	253	n/a – forecast > 72 hrs ahead	LCR2
25/08/2021 18:00 - 22:00	89687	19/08/2021 22:06	LOR2	Update	Update to MN 89673. No significant change in the LOR2 effective period.	250	76	n/a – forecast > 72 hrs ahead	LCR
25/08/2021 19:00 - 20:30	89717	20/08/2021 9:49	LOR2	Update	Update to MN 89687 due to change in effective period. LOR2 condition improved due to an increase in generation availability.	250	195	n/a – forecast > 72 hrs ahead	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>₿</sup>	set by
25/08/2021 26/08/2021	89722	20/08/2021 12:42	LOR2	Cancelled	This cancelled MN 89717. The forecast LOR2 condition cancelled due to increased generation availability.	250	363	n/a – forecast > 72 hrs ahead	LCR
25/08/2021 19:00 - 19:30	89724	20/08/2021 15:18	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability.	250	247	n/a – forecast > 72 hrs ahead	LCR
25/08/2021 08:00 - 08:30	89726	20/08/2021 15:19	LOR1	Update	Update to MN 89675 due to the change in effective period. The forecast LOR1 is due to decreased generation availability and decreased net import.	469	462	n/a – forecast > 72 hrs ahead	LCR2
25/08/2021 17:30 - 19:00, 19:30 - 22:30	89726	20/08/2021 15:19	LOR1	Update	Update to MN 89675 due to change in effective period. LOR1 condition improved due to an increase in generation availability.	470	254	n/a – forecast > 72 hrs ahead	LCR2
25/08/2021	89762	20/08/2021 17:22	LOR2	Cancelled	This cancelled MN 89724. The forecast LOR2 condition cancelled due to increased net import.	250	790	n/a – forecast > 72 hrs ahead	LCR
25/08/2021 26/08/2021	89763	20/08/2021 17:23	LOR1	Cancelled	This cancelled MN 89726. The forecast LOR1 condition cancelled due to increased net import and increased generation availability.	470	909	n/a – forecast > 72 hrs ahead	LCR2
26/08/2021 06:30 - 09:00	89675	19/08/2021 14:51	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	470	392	n/a – forecast > 72 hrs ahead	LCR2
26/08/2021 18:00 - 21:30	89675	19/08/2021 14:51	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and reduced generation availability.	470	325	n/a – forecast > 72 hrs ahead	LCR2
26/08/2021 18:30 - 20:30	89687	19/08/2021 22:06	LOR2	Forecast	Update to MN 89673 due to the change of the forecast reserve level. The forecast LOR1 worsened to forecast LOR2 condition due to decreased generation availability and increased forecast demand.	250	171	n/a – forecast > 72 hrs ahead	LCR

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement	
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by	
26/08/2021 19:00 - 20:00	89717	20/08/2021 9:49	LOR2	Update	Update to MN 89687 due to change in effective period. LOR2 condition improved due to an increase in generation availability.	250	229	n/a – forecast > 72 hrs ahead	LCR	
25/08/2021 26/08/2021	89722	20/08/2021 12:42	LOR2	Cancelled	This cancelled MN 89717. The forecast LOR2 condition cancelled due to increased generation availability.	250	363	n/a – forecast > 72 hrs ahead	LCR	
26/08/2021 18:30 - 21:30	89726	20/08/2021 15:19	LOR1	Update	Update to MN 89675. The forecast LOR2 improved to forecast LOR1 condition due to increased generation availability.	470	310	n/a – forecast > 72 hrs ahead	LCR2	
25/08/2021 26/08/2021	89763	20/08/2021 17:23	LOR1	Cancelled	This cancelled MN 89726. The forecast LOR1 condition cancelled due to increased net import and increased generation availability.	470	909	n/a – forecast > 72 hrs ahead	LCR2	
07/09/2021 19:00 - 20:00	90079	31/08/2021 14:10	LOR2	Forecast	Forecast LOR2 declared due to decreased generation availability.	250	245	n/a – forecast > 72 hrs ahead	LCR	
7/09/2021 07:00 - 08:00	90085	31/08/2021 14:42	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	470	439	n/a – forecast > 72 hrs ahead	LCR2	
7/09/2021 18:00 - 19:00, 20:00 - 23:00	90085	31/08/2021 14:42	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	470	271	n/a – forecast > 72 hrs ahead	LCR2	
7/09/2021 23:30 - 00:30	90085	31/08/2021 14:42	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	470	438	n/a – forecast > 72 hrs ahead	LCR2	
7/9/2021 18:00 - 22:30	90092	31/08/2021 15:52	LOR2	Update	Update to MN 90079 due to change in effective period. The effective period expanded and forecast LOR2 condition worsened due to a further decrease in generation availability.	250	47	n/a – forecast > 72 hrs ahead	LCR	

Effective date and	to and Notico Issue date		Level	Actual, forecast,	Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time		update or cancel		Required	Available	(MW) <sup>₿</sup>	set by
7/09/2021 18:30 - 21:30	90093	31/08/2021 16:35	LOR2	Update	Update to MN 90092. The Forecast LOR2 condition improved due to the increased generation availability.	250	79	n/a – forecast > 72 hrs ahead	LCR
07/09/2021 19:00 - 20:30	90095	1/09/2021 8:33	LOR2	Update	Update to MN 90093. The Forecast LOR2 condition improved due to the increased generation availability.	250	205	n/a – forecast > 72 hrs ahead	LCR
7/09/2021	90121	1/09/2021 11:41	LOR2	Cancelled	This cancelled MN 90095. The forecast LOR2 condition cancelled due to increased generation availability.	250	399	n/a – forecast > 72 hrs ahead	LCR
07/09/2021 18:30 - 21:00	90124	1/09/2021 14:28	LOR1	Update	Update to MN 90085 due to the change of the forecast reserve level. The Forecast LOR2 condition improved to Forecast LOR1 condition due to the increased generation availability.	470	384	n/a – forecast > 72 hrs ahead	LCR2
7/09/2021	90159	2/09/2021 14:59	LOR1	Cancelled	This cancelled MN 90124. The forecast LOR1 condition cancelled due to increased generation availability.	470	844	n/a – forecast > 72 hrs ahead	LCR2
21/09/2021 18:30 - 21:30	90620	17/09/2021 14:33	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and decreased generation availability.	434	285	n/a – forecast > 72 hrs ahead	LCR2
21/09/2021 19:00 - 20:00	90657	17/09/2021 22:42	LOR2	Forecast	Forecast LOR2 declared. The forecast LOR1 worsened to forecast LOR2 condition due to further decreased generation availability and decreased net import.	242	212	n/a – forecast > 72 hrs ahead	LCR
21/09/2021 18:00 - 18:30, 21:00 - 23:00	90660	18/09/2021 7:50	LOR1	Update	Update to MN 90620 due to change in effective period. The effective period extended and forecast LOR1 condition worsened due to an increase in forecast demand.	434	271	n/a – forecast > 72 hrs ahead	LCR2

Effective	ito and Notico Issue d		ssue date Level		forecast, Comments		ment (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel	Comments	Required	Available	(MW) <sup>B</sup>	set by
21/09/2021 18:30 - 21:00	90661	18/09/2021 7:51	LOR2	Update	Update to MN 90657 due to change in effective period. The effective period extended and forecast LOR2 condition worsened due to a further decrease in generation availability and increase in forecast demand.	243	143	n/a – forecast > 72 hrs ahead	LCR
21/09/2021	90663	18/09/2021 8:28	LOR2	Cancelled	This cancelled MN 90661. The forecast LOR2 condition cancelled due to increased generation availability.	243	538	n/a – forecast > 72 hrs ahead	LCR
21/09/2021 19:00 - 21:00	90838	21/09/2021 4:15	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability and increase in forecast demand.	442	428	222	LCR2
21/09/2021 20:00 - 21:00	90855	21/09/2021 10:17	LOR1	Update	Update to MN 90838 due to change in effective period. LOR1 condition improved due to decrease in the forecast demand.	443	406	194	LCR2
21/09/2021	90871	21/09/2021 14:17	LOR1	Cancelled	This cancelled MN 90855. The forecast LOR1 condition cancelled due to decrease in the forecast demand. Demand was lower than what was forecasted.	450	452	194	LCR2
22/09/2021 19:00 - 20:30	90620	17/09/2021 14:33	LOR1	Forecast	Forecast LOR1 declared due to reduced net import and decreased generation availability.	450	411	n/a – forecast > 72 hrs ahead	LCR2
22/09/2021 19:00 - 21:00	90660	18/09/2021 7:50	LOR1	Update	Update to MN 90620. No significant change in the LOR1 effective period.	450	395	n/a – forecast > 72 hrs ahead	LCR2
22/09/2021	90664	18/09/2021 8:29	LOR1	Cancelled	This cancelled MN 90660. The forecast LOR1 condition cancelled due to increased generation availability.	450	589	n/a – forecast > 72 hrs ahead	LCR2

Effective date and	Market Notice	Issue date			Comments	Reserve require	ement (MW) <sup>A</sup>	FUM value	Reserve requirement
time	ID	and time	Level	update or cancel		Required	Available	(MW) <sup>B</sup>	set by
14/09/2021 07:30 - 08:30	90279	8/09/2021 15:04	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	741	710	n/a – forecast > 72 hrs ahead	LCR2
14/09/2021 07:30 - 08:30	90297	9/09/2021 15:00	LOR1	Forecast	Update to MN 90279. No significant change in the LOR1 effective period.	741	703	n/a – forecast > 72 hrs ahead	LCR2
14/09/2021 15/09/2021	90310	10/09/2021 14:54	LOR1	Cancelled	This cancelled MN 90297. The forecast LOR1 condition cancelled due to increased generation availability.	741	744	n/a – forecast > 72 hrs ahead	LCR2
14/09/2021 18:30 - 19:00	90341	11/09/2021 14:25	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	741	732	n/a – forecast > 72 hrs ahead	LCR2
14/09/2021 18:00 - 19:30	90393	12/09/2021 17:13	LOR1	Update	Update to MN 90341 due to change in effective period. LOR1 period expanded as forecast demand increased slightly.	741	720	173	LCR2
14/09/2021 15/09/2021	90446	13/09/2021 15:18	LOR1	Cancelled	This cancelled MN 90393. The forecast LOR1 condition cancelled due to increased generation availability.	741	774	172	LCR2
15/09/2021 07:30 - 08:30	90297	9/09/2021 15:00	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	741	717	n/a – forecast > 72 hrs ahead	LCR2
14/09/2021 15/09/2021	90310	10/09/2021 14:54	LOR1	Cancelled	This cancelled MN 90297. The forecast LOR1 condition cancelled due to increased generation availability.	741	744	n/a – forecast > 72 hrs ahead	LCR2
15/09/2021 07:30 - 08:00	90393	12/09/2021 17:13	LOR1	Forecast	Forecast LOR1 declared due to decreased generation availability.	741	735	182	LCR2
14/09/2021 15/09/2021	90446	13/09/2021 15:18	LOR1	Cancelled	This cancelled MN 90393. The forecast LOR1 condition cancelled due to increased generation availability.	741	774	172	LCR2

Effective date and	Market Notice	Issue date	Level	Actual, forecast,	Comments	Reserve require	rment (MW) <sup>A</sup>	FUM value	Reserve reguirement
time	and time		cancel		Required	Available	(MW) <sup>B</sup>	set by	
Victoria region									
Nil									

A. Reserve Required and Reserve Available are the values that correspond to the trading interval in the effective period with the lowest reserve available.B. The value in this field represents the FUM value for the trading interval during which the minimum available reserve occurred (see Reserve Requirement (MW) – Available field).

## 4. Review of performance

#### 4.1 Forecast Uncertainty Measure values

This section compares the mean, minimum, and maximum FUM values for this reporting period to those for each quarter from Quarter 3 2020 to Quarter 3 2021 (see Figure 1 through Figure 5 below). Maximum FUM values can at times change significantly between re-trainings, in part due to limited sample sizes. Mean FUM values decreasing is indicative of the distribution tightening with decreasing forecast uncertainty.

The most material changes in FUM values between Quarter 2 2021 and Quarter 3 2021 are summarised below. For forecast horizons not mentioned below, the changes from Quarter 2 2021 were minor:

- New South Wales the mean FUM values increased for all forecast horizons. The minimum FUM values increased for the 2, 6, 12, 48, and 60 hours ahead forecast horizons. The maximum FUM values increased for the 12, 24, and 48 hours ahead forecast horizons.
- Queensland the maximum FUM values decreased for the 6, 12, 24, 48, and 60 hours ahead forecast horizons. The minimum FUM values decreased for the 6 and 12 hours ahead forecast horizons. The mean FUM values for all horizons had very small changes.
- South Australia the maximum and mean FUM values increased for the 24, 48, and 60 hours ahead forecast horizons. The minimum FUM values increased for the 2 and 6 hours ahead forecast horizons.
- Tasmania the mean FUM values increased for all forecast horizons. The maximum FUM values increased for the 2 and 6 hours ahead forecast horizons. The minimum FUM values increased for the 2 and 60 hours ahead forecast horizon.
- Victoria the maximum FUM values decreased for the 6, 12, 24, 48, and 60 hours ahead forecast horizons. The mean and minimum FUM values were relatively unchanged.



Figure 1 New South Wales region: maximum, minimum, and mean FUM values for the reporting period, and compared to previous four quarters

### Figure 2 Queensland region: maximum, minimum, and mean FUM values for the reporting period, and compared to previous four quarters





## Figure 3 South Australia region: maximum, minimum, and mean FUM values for the reporting period, and compared to previous four quarters

Figure 4 Tasmania region: maximum, minimum, and mean FUM values for the reporting period, and compared to previous four quarters





Figure 5 Victoria region: maximum, minimum, and mean FUM values for the reporting period, and compared to previous four quarters

#### 4.2 Forecast and actual LOR declarations

A summary of the count and causes of declared forecast and actual LOR conditions can be found in Table 1 in Section 3 of this report.

During the reporting period 1 July 2021 to 30 September 2021, there were 69 LOR declarations. Of these declarations, 49 were for forecast LOR conditions:

- 28 forecast LOR1 conditions were declared.
- 21 forecast LOR2 conditions were declared.
- None of the forecast LOR1 conditions was set by FUM.
- 14 forecast LOR2 conditions were set by FUM.

A total of 16 actual LOR1 conditions were declared during the reporting period:

- There were 13 observed as forecast LOR1 prior to being declared as actual, therefore not counted as a forecast declaration based on the declaration count principles outlined in Section 3.
- Three were declared as actual LOR1 conditions without prior to being declared as forecast LOR1 conditions.

A total of four actual LOR2 conditions were declared during the reporting period.

- Three of them were observed as forecast LOR2 conditions prior to being declared as an actual.
- Only one was declared as an actual LOR2 condition without prior to being declared as a forecast LOR2 condition.

By comparison, 73 LOR declarations were made in Quarter 2 2021 (43 forecast LOR events and 30 actual LOR events) and 11 LOR declarations were made in Quarter 3 2020 (seven forecast LOR events and four actual events).

There were 14 LOR declarations in the reporting period set by the FUM, so the percentage of LOR conditions where the FUM set the reserve requirement was 20%. In Quarter 2 2021 the percentage was 23%, and it was 9% in Quarter 3 2020.

There were four actual LOR2 conditions and zero forecast LOR3 conditions during the current reporting period.

Effective period	LOR1				LOR2		LOR3
New South Wales (NSW)							
01/07/2021	Forecast then Actual						
05/07/2021	Forecast t	nen Ac	tual				
06/07/2021	Forecast t	nen Ac	tual		Actual		
07/07/2021	Forecast tl	nen Ac	tual				
12/07/2021	Forecast		Fore Actu	cast then Ial	Forecast		
14/07/2021	Forecast Actu then Actual		al	Actual			
19/07/2021	Forecast tl Actual	nen	Fore	cast	Forecast	Forecast	
20/07/2021	Forecast				Forecast		
21/07/2021	Forecast t	nen Ac	tual		Forecast		
					then Actual		
22/07/2021	Forecast tl Actual	Forecast then For			Forecast	Forecast	
	Actual		Actual			then Actual	
23/07/2021	Forecast		Fore	cast	Forecast	Forecast	
25/07/2021					Forecast		
26/07/2021	Forecast				Forecast		
29/07/2021	Forecast						
Queensland (QLD)							
06/07/2021	Actual						
12/07/2021	Forecast then Actual						
19/07/2021	Forecast		Fore	cast	Forecast		
20/07/2021	Forecast	Forecast					
21/07/2021	Forecast t	nen Ac	tual		Forecast then A	Actual	

 Table 3
 LORs declared during the reporting period by trigger (FUM or LCR)

Effective period	LOR1		LOR2		LOR3
22/07/2021	Forecast		Forecast	Forecast	
23/07/2021	Forecast		Forecast		
26/07/2021	Forecast		Forecast		
27/07/2021	Forecast				
30/08/2021	Forecast then A	ctual			
20/09/2021	Forecast				
South Australia (SA)					
29/07/2021	Forecast				
01/08/2021	Forecast		Forecast		
12/08/2021			Forecast		
25/08/2021	Forecast	Forecast	Forecast		
26/08/2021	Forecast	Forecast	Forecast		
07/09/2021	Forecast	Forecast	Forecast		
21/09/2021	Forecast		Forecast		
22/09/2021	Forecast				
Tasmania (TAS)					
14/09/2021	Forecast	Forecast			
15/09/2021	Forecast				
Victoria (VIC)					
NIL					

Note. Yellow shading indicates the requirement was set by the LCR or LCR2, and orange indicates the requirement was set by the FUM.

#### 4.3 LOR declaration of reserve requirement

Of the 41 forecast LOR1 conditions declared, 13 resulted in actual LOR1 conditions. These were counted as actual LOR1 conditions based on the declaration count principles outlined in Section 3.

Of the 24 forecast LOR2 conditions declared, three resulted in actual LOR2 conditions. These were counted as actual LOR2 condition based on the declaration count principles outlined in Section 3.

There were 28 forecast LOR1 conditions that did not develop into actual LOR1 conditions, and 21 forecast LOR2 conditions that did not develop into actual LOR2 conditions. The reasons were either a market response following the issue of the forecast market notice, or changes to the net import or changes in forecast demand. The market response generally took the form of increased available generation and transmission network service providers (TNSPs) rescheduling planned transmission outages.

#### 4.4 Number and cause of LOR declarations

As summarised in Table 1, a total of 69 LOR conditions were declared during the current reporting period: 49 forecast and 20 actual LOR conditions.

This is slightly lower than the 73 LOR declarations recorded in the previous reporting period (1 April to 30 June 2021).

Quarter 3 2021 covered the mid-to late winter months and the first month of spring. The LOR declarations in this quarter are mainly due to short notice outages and unplanned power system events.

As presented in Table 3, there were four instances where actual LOR conditions occurred with no prior forecast, most other actual LOR conditions had some degree of anticipation and lead time for the market and TNSPs to respond.

Many of the forecast LOR conditions did not eventuate into actual LOR conditions mainly due to market response in the form of increased generation availability.

The LOR conditions in New South Wales and Queensland were driven by reduced net import and decreased generation availability.

In particular, on 22 July 2021, the reserve conditions in New South Wales were impacted due to the reclassification of multiple generating units setting a much higher LOR reserve requirement.

The LOR conditions in South Australia were mainly due to decreased generation availability and reduced net import.

The LOR conditions in Tasmania were due to decreased generation availability.

# Glossary

This document uses many terms that have meanings defined in the NER. The NER meanings are adopted unless otherwise specified.

For each of the terms below, refer to the Reserve Level Declaration Guidelines<sup>6</sup> for further information.

Term	Definition
BBN	Bayesian Belief Network <sup>7</sup>
FUM	Forecast Uncertainty Measure (the number of MW representing the level of forecasting uncertainty)
Guidelines	The Reserve Level Declaration Guidelines published by AEMO under clause 4.8.4A of the NER
LCR	Largest Credible Risk – the single largest credible risk in the region
LCR2	Largest Credible Risk 2 – the sum of the two largest credible risks in the region
LOR1	Lack of Reserve level 1. The threshold for an LOR1 is determined by the larger value of either the FUM or the sum of the two largest credible risks in the region (LCR2).
LOR2	Lack of Reserve level 2. The threshold for an LOR2 is determined by the larger value of either the FUM or the largest credible risk in the region (LCR).
LOR3	Lack of Reserve level 3. The threshold for an LOR3 condition is when the forecast reserve for a region is at or below zero.
PASA	Projected Assessment of System Adequacy <sup>8</sup>
TNSP	Transmission network service provider

<sup>&</sup>lt;sup>6</sup> See AEMO's reserve level declaration guidelines, at <u>https://www.aemo.com.au/-/media/files/electricity/nem/security\_and\_reliability/power\_system\_ops/</u> reserve-level-declaration-guidelines.pdf.

<sup>&</sup>lt;sup>7</sup> More detail regarding Bayesian Belief Networks is available in the Appendix of AEMO's reserve level declaration guidelines document in the link above.

<sup>&</sup>lt;sup>8</sup> See AEMO's Projected Assessment of System Adequacy (PASA) principles, at <u>https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/projected-assessment-of-system-adequacy.</u>