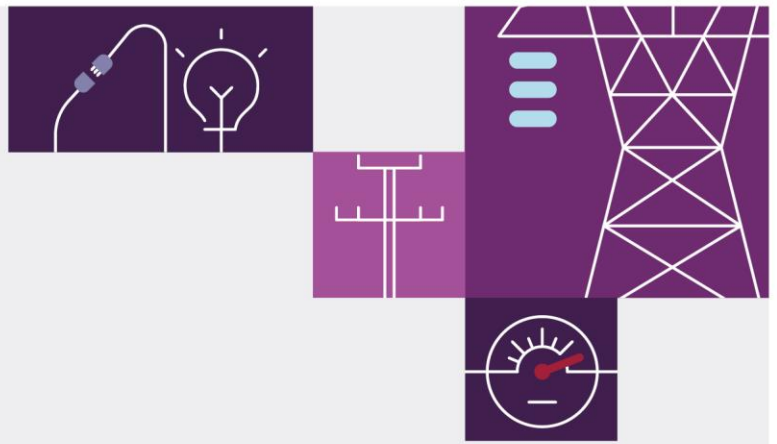


NEM Lack of Reserve Framework Report 1 July to 30 September 2022

October 2022

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 from 1 July to 30 September 2022.

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Version control

Version	Release date	Changes
1	27/10/2022	Initial release

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 to 30 September (Quarter 3 2022), AEMO declared 253 individual Lack of Reserve (LOR) conditions in total in the National Electricity Market (NEM)¹.

Table 1 shows the number and type of LOR conditions declared in Quarter 3 2022.

Table 1 LOR conditions declared in Quarter 3 2022

LOR declarations		Total
LOR1	Actual	52
	Forecast	89
LOR2	Actual	1
	Forecast	110
LOR3	Actual	0
	Forecast	1
Total		253

This compares with 406 LOR conditions declared in the previous reporting period (Quarter 2 2022), and 69 LOR conditions declared for the same period last year (Quarter 3 2021)².

Quarter 3 2022 covered the mid-to late winter months and the first month of spring:

- Across the NEM, most of the LOR declarations in this quarter were due to decreased generation availability (including energy limitations). Some of the LOR declarations in this quarter were due to reduced net import and increased forecast demand.
- Many of the forecast LOR conditions did not eventuate into actual LOR conditions, mainly because additional generation was made available, or revised forecast demand meant the actual demand was not as high as previously forecast. Some of the forecast LOR conditions were cancelled when the forecast uncertainty measure (FUM) value decreased.
- The LOR conditions in New South Wales and South Australia were mainly driven by decreased generation availability and high demand forecasts.
- The LOR conditions in Queensland were mainly driven by decreased generation availability and increased FUM values.
- The LOR conditions in Victoria and Tasmania were mainly due to decreased generation availability.

¹ 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 <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation>.

² Previous quarterly reports are on AEMO's website at <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/system-operations/power-system-operation/nem-lack-of-reserve-framework-quarterly-reports>.



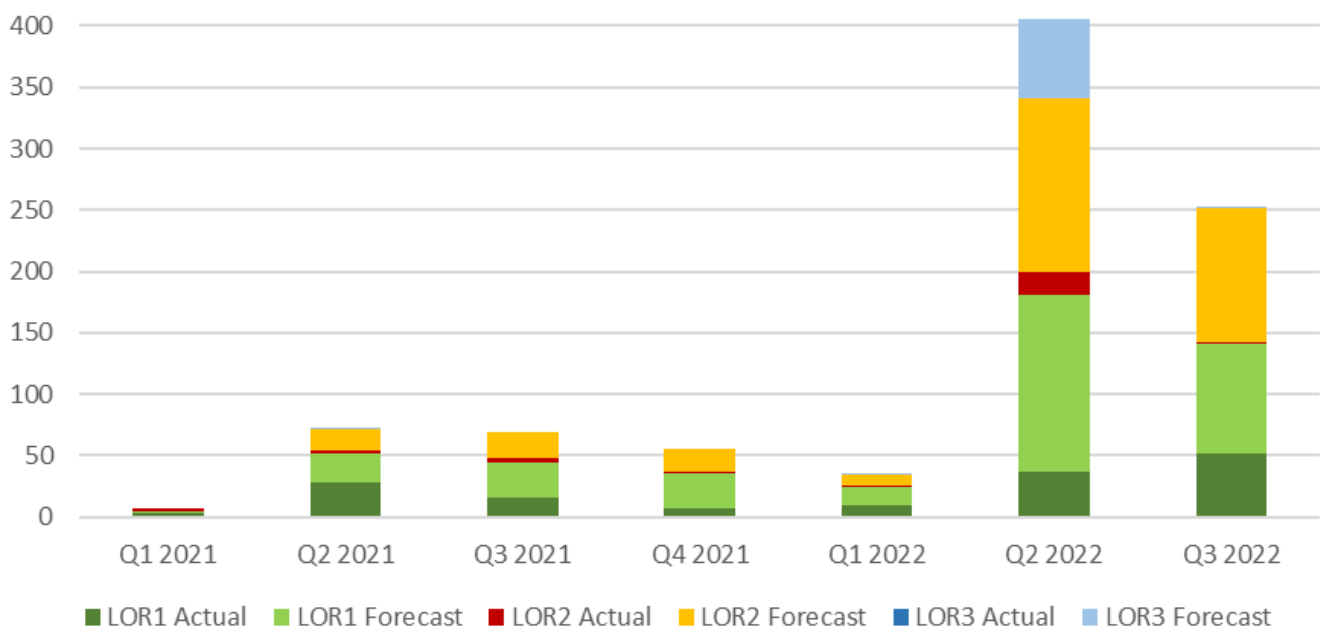
Of the 253 LOR declarations in Quarter 3 2022:

- For 141 declarations, the reserve requirement was set by the sum of the two largest credible risks (LCR2, for LOR1 thresholds). There were 111 declarations where the reserve requirement was set by the largest credible risk (LCR, for LOR2 thresholds).
- There were 91 declarations (36%) where the reserve requirement was set by the FUM.

For comparison, in Quarter 2 2022, 40 of the 185 LOR declarations (non-market suspension period) were set by the FUM (22%), and in Quarter 3 2021, 15 of the 69 LOR declarations were set by the FUM (20%).

The graph below shows the historical trend of actual and forecast LOR conditions in past quarters from Quarter 1 2021 compared to the current quarter. The total number of LOR declarations in this reporting period decreased significantly compared to the last quarter³, but was a significant increase on the same quarter in the previous year.

Figure 1 Quarterly comparison of actual and forecast LOR conditions, Q1 2021 to Q3 2022



The next report on the NEM Lack of Reserve Framework, for the reporting period 1 October 2022 to 31 December 2022, will be published by 31 January 2023.

³ Quarter 2 2022 had an exceptionally high number of LOR conditions impacted by significant operational challenges and a period of market suspension in June 2022.

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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 to 30 September 2022 (Quarter 3 2022).

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 www.aemo.com.au/Contact-us. 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 2022 to 31 December 2022, will be published by 31 January 2023.

2 Reserve level declaration guidelines

2.1 Changes in the reporting period

During the reporting period, there were no changes to the Guidelines⁴.

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 2022 to include data up to 30 September 2022. The retraining involves a three-stage process:

1. Extract-Transform-Load (ETL) stage, to extract historical data up to 30 September 2022, 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 shortly, 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 2021 to September 2022, 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 FUM values.

Changes in 90th, 50th (median) and 10th percentiles FUM values between the existing and retrained BBN backcasts are listed below. Minor changes were identified for some other forecast horizons and distribution statistics but are not listed here. Maximum, mean, and minimum values are to still be included in visuals for review of actual FUM values in Section 4.1 of this report.

- New South Wales – 90th percentile FUM values increased by 75 megawatts (MW) and 37 MW for the 2 hours ahead and 6 hours ahead forecast horizons respectively. The 90th percentile FUM value decreased by 44 MW for the 12 hours ahead forecast horizon. The Median percentile FUM value decreased by 52 MW for the 2 hours ahead forecast horizon. 10th percentile FUM values decreased by 60 MW and 35 MW for the 2 hours and 60 hours ahead forecast horizons respectively, increasing by 60 MW for the 12 hours ahead forecast horizon. 90th, median, and 10th percentile FUM values for all other forecast horizons were relatively unchanged.
- Queensland – 90th and median percentile FUM values increased by 31 MW and 33 MW, for the 60 hours ahead and 48 hours ahead forecast horizons respectively. 10th percentile FUM values decreased by 42 MW

⁴ The Guidelines are at <http://aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation>.

for the 60 hours ahead forecast horizon. 90th, median, and 10th percentile FUM values for all other forecast horizons were relatively unchanged.

- South Australia – 10th percentile and median FUM values decreased for the 60 hours ahead forecast horizon by 25 MW and 14 MW respectively. 90th, median and 10th percentile FUM values were relatively unchanged for all forecast horizons.
- Tasmania – 90th percentile FUM values decreased by 10 MW for the 60 hours ahead forecast horizon. 10th, median and 90th percentile FUM values were relatively unchanged for all other forecast horizons.
- Victoria – 90th percentile FUM values decreased by 39 MW for the 24 hours ahead forecast horizon. 10th, median and 90th percentile FUM values were relatively unchanged for all other forecast horizons.

3 Lack of Reserve conditions declared

Table 2 provides a high-level summary of the counts of forecast and actual LOR conditions for the reporting period (Quarter 3 2022) based on the declaration count principles.

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 at the same level 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.
- Continuous LOR conditions which spanned multiple periods throughout a day are counted as individual LOR declarations for each period covered. For this purpose, a NEM trading day is split into four 6-hour periods: morning peak covers 0400 hrs to 1000 hrs, mid-day covers 1000 hrs to 1600 hrs, evening peak covers 1600 hrs to 2200 hrs, and overnight covers 2200 hrs to 0400 hrs on the next day⁵. The maximum count allocated to each trading day is four.

⁵ This is due to trading day rather than calendar day to prevent double-counting of a continuous condition.

Table 2 Summary of forecast and actual LOR conditions, with causing factors

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
4/07/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 17:30 - 18:00 (3 hour lead time) due to increased forecast demand and decreased generation availability (MN 99901). The forecast LOR1 was cancelled due to increased generation availability (MN 99905).</p>
5/07/2022	NSW	1			1			<p>A forecast LOR2 was declared with an effective period 17:30 - 19:00 (29 hour lead time) due to reduced net import (MN 99876). A forecast LOR1 was declared with an effective period 19:00 - 19:30 (30 hour lead time) due to reduced net import (MN 99878). The forecast LOR2 was cancelled due to increased generation availability (MN 99897). A forecast LOR2 condition was redeclared with an effective period of 17:30 - 18:00 (27 hour lead time) due to reduced net import and decreased generation availability (MN 99900). The forecast LOR2 was cancelled due to increased net import and increased generation availability (MN 99904). A forecast LOR2 condition was later redeclared with an effective period of 17:30 - 18:30 (22 hour lead time) due to decreased generation availability (MN 99919). The forecast LOR2 was cancelled due to increased net import and increased generation availability (MN 99925). Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and net import (MN 99898, MN 99912, MN 99920 and MN 99990). The forecast LOR1 was cancelled due to increased generation availability (MN 100021). An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 17:30 -18:30 (MN 100022). The actual LOR1 was cancelled when the effective period elapsed (MN 100027).</p>
6/07/2022	NSW	2						<p>Mid Day: A forecast LOR1 was declared with an effective period 12:30 - 16:00 (6 minute lead time) due to decreased generation availability and increased forecast demand (MN 100048). An actual LOR1 was declared due to decreased generation availability and increased demand. Actual conditions existed from 12:30 - 16:00 (MN 100049). The actual LOR1 was cancelled due to increased generation availability (MN 100051).</p> <p>Evening Peak: A forecast LOR1 was declared with an effective period 17:30 - 19:00 (11 hour lead time) due to decreased generation availability (MN 100039). Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 100048, MN 100050 and MN 100054).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>An actual LOR1 was declared due to decreased generation availability and increased demand. Actual conditions existed from 17:30 - 19:00 (MN 100057).</p> <p>The actual LOR1 was cancelled due to increased generation availability (MN 100058).</p>
7/07/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 17:30 - 19:30 (28 hour lead time) due to decreased generation availability and reduced net import (MN 100050).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 100054, MN 100060, MN 100071 and MN 100074).</p> <p>The forecast LOR1 was cancelled due to increased generation availability.</p>
8/07/2022	NSW	2	1		1			<p>Morning Peak: An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 07:00 - 10:30 (MN 100087).</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 100093).</p> <p>Mid Day: A forecast LOR1 was declared with an effective period 14:30 - 17:30 (7 hour lead time) due to decreased generation availability and increased forecast demand (MN 100089).</p> <p>Evening Peak: A forecast LOR1 was declared with an effective period 18:00 - 18:30 (51 hour lead time) due to decreased generation availability (MN 100053).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 100071, MN 100074, MN 100079, MN 100086, MN 100089, MN 100096, MN 100099).</p> <p>A forecast LOR2 was declared with an effective period 17:30 - 19:30 (10 hour lead time) due to decreased generation availability, reduced net import and increased forecast demand (MN 100088).</p> <p>The forecast LOR2 was cancelled due to increased generation availability and decreased forecast demand (MN 100098).</p> <p>An actual LOR1 was declared due to decreased generation availability and increased demand. Actual conditions existed from 17:30 - 20:30 (MN 100103).</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 100106).</p> <p>The actual LOR1 was cancelled when the effective period elapsed.</p>
9/07/2022	NSW	1	1		1			<p>Morning Peak: A forecast LOR1 was declared with an effective period 08:00 - 09:00 (1 hour lead time) due to decreased generation availability and reduced net import (MN 100111).</p> <p>An update to the forecast LOR1 was issued with an extended effective period 08:00 - 09:30 (6 minute lead time). The forecast LOR1 condition worsened due to decreased generation</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>availability (MN 100113).</p> <p>An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 08:30 - 09:30 (MN 100114).</p> <p>The actual LOR1 was cancelled due to increased generation availability and decreased demand (MN 100115).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with an effective period 18:00 - 18:30 (31 hour lead time) due to decreased generation availability (MN 100094).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100095).</p> <p>A forecast LOR1 was declared with an effective period 17:30 - 18:30 (27 hour lead time) due to decreased generation availability (MN 100100).</p> <p>The forecast LOR1 was cancelled (MN 100104) and redeclared (MN 100108) with similar effective periods due to change in generation availability and net import. Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and net import (MN 100111, MN 100112, MN 100113, MN 100117 and MN 100121).</p> <p>The forecast LOR1 was cancelled due to increased generation availability.</p>
10/07/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 18:00 - 18:30 (51 hour lead time) due to decreased generation availability (MN 100101).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability (MN 100117, MN 100121 and MN 100122).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100128).</p>
11/07/2022	NSW	1						<p>A forecast LOR1 was declared with an effective period 17:30 - 19:00 (11 hour lead time) due to decreased generation availability and increased forecast demand (MN 100134).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 100147 and MN 100166).</p> <p>An actual LOR1 was declared due to increased demand. Actual conditions existed from 17:30 - 19:00 (MN 100170).</p> <p>The actual LOR1 was cancelled when the effective period elapsed.</p>
12/07/2022	NSW	1			4			<p>A forecast LOR2 was declared with an effective period from 05:00 12/07/2022 to 04:00 13/07/2022 (20 hour lead time) due to decreased generation availability (MN 100149).</p> <p>An update to the forecast LOR2 was issued with a shortened effective period from 06:00 12/07/2022 to 04:00 13/07/2022 (19 hour lead time) but decreased forecast reserve level due to decreased generation availability (MN 100151).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100152).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>A forecast LOR1 was declared with an effective period 17:30 - 19:30 (27 hour lead time) due to decreased generation availability (MN 100160).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 100167, MN 100173, MN 100176, MN 100185 and MN 100197).</p> <p>An actual LOR1 was declared due to increased demand. Actual conditions existed from 17:30 - 19:30 (MN 100204).</p> <p>The actual LOR1 was cancelled when the effective period elapsed.</p>
14/07/2022	NSW	1						<p>A forecast LOR1 was declared with an effective period 17:30 - 19:00 (27 hour lead time) due to decreased generation availability and reduced net import (MN 100229).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability (MN 100237 and MN 100243).</p> <p>The forecast LOR1 was cancelled due to increased generation availability and increased net import (MN 100244).</p> <p>A forecast LOR1 was redeclared with an effective period 17:30 - 19:00 (1 hour lead time) due to decreased generation availability (MN 100250).</p> <p>An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 17:30 - 19:30 (MN 100251).</p> <p>The actual LOR1 was cancelled when the effective period elapsed.</p>
19/07/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 17:30 - 18:30 (7 minute lead time) due to decreased generation availability and increased forecast demand (MN 100375).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100376).</p>
20/07/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 17:30 - 19:00 (24 hour lead time) due to decreased generation availability and increased forecast demand (MN 100375).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition worsened due to decreased generation availability and increased forecast demand (MN 100376, MN 100388 and MN 100390).</p> <p>The forecast LOR1 was cancelled due to increased generation availability and decreased forecast demand (MN 100397).</p>
21/07/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 17:30 - 19:00 (1 hour lead time) due to decreased generation availability, reduced net import and increased forecast demand (MN 100424).</p> <p>The forecast LOR1 was cancelled due to increased generation availability.</p>
3/09/2022	NSW		1					<p>A forecast LOR1 was declared with an effective period 19:00 - 20:00 (21 hour lead time) due to decreased generation availability and reduced net import (MN 101463).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								The forecast LOR1 was cancelled due to increased net import (MN 101464).
4/07/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 17:30 – 19:30 (28 hour lead time) due to decreased generation availability and increased forecast demand (MN 99819).</p> <p>Several updates were issued for the forecast LOR1 conditions with changes in effective period due to changes in generation availability (MN 99882, 99903).</p> <p>An actual LOR1 was declared due to decreased generation availability and actual demand was 800 MW higher than initially forecasted caused an actual LOR1 condition. Actual conditions existed from 16:30 - 19:30.</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 99918).</p> <p>An actual LOR1 was declared due to decreased generation availability (MN 99923). Actual conditions existed from 20:30 - 22:00.</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 99924).</p>
5/07/2022	QLD	3		1	2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 07:00 – 08:00 (8 hour lead time) due to decreased generation availability (MN 99927).</p> <p>A forecast LOR2 was declared with effective period 10:30 – 11:30 (4 hour lead time) due to decreased generation availability (MN 99965).</p> <p>An update to the forecast LOR2 condition was issued due to changed effective period 10:30 – 12:30 and forecast reserve level. The forecast condition worsened due to decreased generation availability and increased forecast demand (MN 99967).</p> <p>An actual LOR1 was declared at 08:00 due to decreased generation availability and increased demand. Actual conditions existed from 08:00 – 10:00 (MN 99969).</p> <p>An actual LOR2 was declared at 08:30 due to decreased generation availability (MN 99972). Actual conditions existed from 08:30 - 09:00.</p> <p>The actual LOR2 condition was cancelled at 09:20 when the effective period elapsed (MN 99976).</p> <p>Midday:</p> <p>A forecast LOR2 was declared with effective period 14:00 – 14:30 (20 hour lead time) due to decreased generation availability (MN 99910).</p> <p>Several updates to the forecast LOR condition were issued with similar effective periods due to the fluctuation in forecast reserve levels between LOR1 and LOR2. The forecast LOR condition improved or worsened due to changes in generation availability, FUM level, and forecast demand (MN 99921, MN 99927, MN 99981).</p> <p>An actual LOR1 was declared due to decreased generation availability and reduced net import and increased demand forecast (MN 99987). Actual conditions existed from 12:35 - 17:00.</p> <p>The actual LOR1 condition was cancelled at 13:00 when the effective period elapsed</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>(MN 99982).</p> <p>An actual LOR1 was declared at 14:30 due to increased demand (MN 100010). The actual LOR1 condition was cancelled at 15:30 when the effective period elapsed (MN 100016).</p> <p>Evening Peak:</p> <p>With a 3 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 17:00 – 23:30. The forecast LOR conditions worsened or improved due to changes in generation availability and forecast demand.</p> <p>An actual LOR1 condition was present between 17:30 – 19:00 due to increased demand (MN 100023, MN 100029).</p>
6/07/2022	QLD	1	2		1			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:30 - 07:30 (22 hour lead time) due to decreased generation availability and increased FUM value (MN 99971).</p> <p>An update to the forecast LOR2 condition was issued with an effective period of 06:00 - 08:00 (20 hour lead time) due to change in effective period and forecast reserve level. The forecast reserve level worsened due to decreased generation availability (MN 99977).</p> <p>A forecast LOR1 was declared with effective period 06:30 - 08:00 (14 hour lead time) due to decreased generation availability and increased FUM value.</p> <p>Midday:</p> <p>A forecast LOR1 was declared with effective period 12:30 - 16:00 (6 minute lead time) due to decreased generation availability and increased forecast demand (MN 100048).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 17:30 - 18:00 (25 hour lead time) due to decreased generation availability (MN 99908).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods covering 17:00 – 22:00. The forecast LOR1 condition improved or worsened due to change in generation availability and demand forecast (MN 100019, MN 100035, MN 100042, MN 100043, MN 100046, MN 100047, MN 100052, MN 100055).</p> <p>An actual LOR1 was declared due to decreased generation availability and reduced net import (MN 100056). Actual conditions existed from 17:30 - 22:00.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 100061).</p>
7/07/2022	QLD	2			2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:00 - 07:30 (42 hour lead time) due to decreased generation availability and increased forecast demand (MN 99985).</p> <p>Several updates to the forecast LOR2 condition were issued with similar effective. The forecast LOR2 condition improved or worsened due to change in FUM value and generation</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>availability (MN 99989, 100011, 100015, 100037).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100040) and redeclared as a forecast LOR1 with similar effective period 06:00 - 06:30 (14 minute lead time) due to decreased generation availability and increased forecast demand (MN 100062).</p> <p>An actual LOR1 was declared due to decreased generation availability and increased demand (MN 100064). Actual conditions existed from 06:30 - 07:30.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 100065).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared (54 hour lead time) with effective period 17:30 - 18:00, 19:30 - 20:00 and 20:30 - 21:00 due to decreased generation availability and increased forecast demand (MN 99985).</p> <p>Several updates to the forecast LOR2 condition were issued with similar effective. The forecast LOR2 condition improved or worsened due to change in FUM value and generation availability (MN 99989, 100011).</p> <p>A forecast LOR1 was declared with effective period 20:00 - 20:30 (9 hour lead time) due to decreased generation availability and increased forecast demand (MN 100068).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective. The forecast LOR1 condition improved or worsened due to change in FUM value and generation availability (MN 100069, MN 100072, MN 100075, MN 100076, MN 100078).</p> <p>An actual LOR1 was declared due to decreased generation availability (MN 100080). Actual conditions existed from 17:30 - 21:30.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 100082).</p>
8/07/2022	QLD		1		1			<p>A forecast LOR2 was declared with effective period 06:30 – 07:00 (70 hour lead time) due to forced generator outage and unplanned transmission network outage causing decreased generation availability (MN 99966).</p> <p>An update to the forecast LOR2 condition was issued (66 hour lead time) due to change in effective period 06:00 – 07:30 and forecast reserve level. The forecast reserve level worsened due to decreased generation availability (MN 99986).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100040, 100041) and redeclared as a forecast LOR1 with similar effective period 07:00 – 7:30 (18 hour lead time) due to decreased generation availability (MN 100072).</p> <p>Several updates were issued for the forecast LOR1 condition with no significant change to previous LOR condition (MN 100075, 100083).</p>
10/07/2022	QLD				1			<p>A forecast LOR2 was declared with effective period 17:30 - 18:00 (70 hour lead time) due to forced generator outage and unplanned transmission network outage causing decreased generation availability as well as increased FUM value (MN 100081).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100084).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
11/07/2022	QLD	1			1			<p>Morning Peak: A forecast LOR2 was declared with effective period 06:30 - 07:00 (66 hour lead time) due to forced generator outage and unplanned transmission network outage causing decreased generation availability as well as increased FUM value (MN 100097). The forecast LOR2 was cancelled due to decreased FUM value (MN 100102).</p> <p>Evening Peak: A forecast LOR1 was declared with effective period 17:30 - 20:00 (5 hour lead time) due to forced generator outage and unplanned transmission network outage causing decreased generation availability (MN100153). An actual LOR1 was declared due to decreased generation availability (MN 100169). Actual conditions existed from 17:00 - 19:00.</p>
12/07/2022	QLD	1			2			<p>Morning Peak: A forecast LOR2 was declared with effective period 06:30 - 07:30 (64 hour lead time) due to decreased generation availability and increased FUM value (MN 100118). The forecast LOR2 was cancelled due to decreased FUM value (MN 100120).</p> <p>Evening Peak: A forecast LOR2 was declared with effective period 18:00 - 20:00 (70 hour lead time) due to decreased generation availability and increased FUM value (MN 100123). Several updates to the forecast LOR2 condition were issued with similar effective. The forecast LOR2 condition improved or worsened due to change in FUM value and generation availability (MN 100124, 100125, 100126, 100127, 100130). More updates to the forecast LOR2 condition were issued (29 hour lead time) due to change in forecast reserve level. The forecast reserve level worsened due to decreased generation availability and increased forecast demand (MN 100154, 100161). An actual LOR1 was declared due to decreased generation availability and increased demand forecast (MN 100205). Actual conditions existed from 17:30 - 18:30. The actual LOR1 condition was cancelled when the effective period elapsed. (MN 100213).</p>
13/07/2022	QLD	2			2			<p>Morning Peak: A forecast LOR1 was declared with effective period 06:30 - 07:00 (4 day lead time) due to decreased generation availability (MN 100119). A forecast LOR2 was declared with effective period 06:00 - 08:00 (67 hour lead time) due to decreased generation availability and increased FUM value (MN 100127). Several updates to the forecast LOR2 were issued due to changes in effective period 06:00 - 7:30 and forecast reserve levels. The forecast LOR2 conditions fluctuated due to changes in FUM value and generation availability (MN 100131, 100132, 100133, 100147, 100150, 100155, 100158, 100162, 100175, 100177, 100184, 100187, 100189, 100194.)</p>

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>LOR2 condition downgraded to LOR1 condition due to decreased FUM value (MN 100195) (14 hour lead time).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period 05:30 - 7:00 and forecast reserve levels. The forecast LOR1 conditions fluctuated due to changes in generation availability and FUM value (MN 100215, 100217)</p> <p>An actual LOR1 was declared due to decreased generation availability (MN 100219). Actual conditions existed from 06:30 - 07:30.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 100220).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 18:00 - 18:30 (63 hour lead time) due to decreased generation availability and increased FUM value (MN 100132).</p> <p>Several updates to the forecast LOR2 were issued due to changes in effective period 16:30 - 21:30 and forecast reserve levels. The forecast LOR2 conditions fluctuated due to changes in FUM value and generation availability (MN 100147, 100150, 100155, 100158, 100162, 100177, 100187, 100188.)</p> <p>LOR2 condition downgraded to LOR1 condition due to decreased FUM value (MN 100189, 100195) (25 hour lead time).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period 16:30 - 23:00 and forecast reserve levels. The forecast LOR1 conditions fluctuated due to changes in generation availability (MN 100189, 100195, 100215, 100216, 100235)</p> <p>An actual LOR1 was declared due to decreased generation availability (MN 100239). Actual conditions expected to exist from 17:30 - 19:00 hrs.</p> <p>An update to the actual LOR1 condition was issued due to change in effective period and forecast reserve level. The forecast reserve level worsened due to increased demand (MN 100240).</p> <p>Actual conditions existed from 17:30 - 21:30.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 100242).</p>
14/07/2022	QLD		1		2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:30 – 07:30 (70 hour lead time) due to increased FUM (MN 100148).</p> <p>Several updates to the forecast LOR2 condition were issued with similar effective periods. The forecast LOR2 condition improved or worsened due to changes in generation availability, forecast demand, and FUM level.</p> <p>(MN 100156, MN 100174, MN 100179, MN 100182, MN 100218, MN 100221, MN 100223, MN 100225)</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100230).</p>

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 18:00 – 20:30 (3 day lead time) due to increased forecast demand (MN 100159).</p> <p>A forecast LOR2 was declared with effective period 18:00 – 18:30 (65 hour lead time) due to increased FUM (MN 100174).</p> <p>Several updates to the forecast LOR2 condition were issued due to change in effective period and forecast reserve level. The forecast LOR condition improved or worsened due to changes in generation availability, forecast demand, and FUM level. (MN 100182, MN 100218, MN 100221, MN 100223, MN 100225)</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and decreased forecast demand (MN 100230).</p>
15/07/2022	QLD	2			1			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:30 - 07:00 (70 hour lead time) due to decreased generation availability and increased forecast demand (MN 100178).</p> <p>Several updates to the forecast LOR2 were issued due to changes in effective period 06:00 - 07:30 and forecast reserve levels. The forecast LOR2 conditions fluctuated due to changes in FUM value and generation availability (MN 100222, 100224, 100234).</p> <p>The forecast LOR2 condition downgraded to forecast LOR1 condition due increased generation availability (MN 100245, 100246)</p> <p>An actual LOR1 was declared due to reduced net import (MN 100254). Actual conditions existed from 06:30 - 07:30.</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 17:30 - 21:00 (28 hour lead time) due to decreased generation availability (MN 100246).</p> <p>An actual LOR1 was declared reduced net import (MN 100273). Actual conditions existed from 17:30 - 21:00.</p>
16/07/2022	QLD		1		1			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:30 - 07:00 (65 hour lead time) due to decreased generation availability and increased FUM value (MN 100227).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100228).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 17:30 - 18:00 (2.88 hour lead time) due to decreased generation availability and increased FUM value (MN 100281).</p> <p>An update to the forecast LOR1 was issued due to a change in effective period (17:30 - 19:30) and forecast reserve level (29 minute lead time). The forecast LOR1 condition worsened due to decreased generation availability (MN 100290)</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								The forecast LOR1 was cancelled due to increased generation availability (MN 100292).
17/07/2022	QLD		1		1			<p>A forecast LOR2 was declared with effective period 19:30 - 20:00 (56 hour lead time) due to decreased generation availability and increased FUM value (MN 100259).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100265).</p> <p>A forecast LOR1 was declared with effective period 17:30 - 18:30 (6 hour lead time) due to decreased generation availability and increased forecast demand (MN 100319).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100329).</p>
18/07/2022	QLD				1			<p>A forecast LOR2 was declared with effective period 06:30 - 07:00 (70 hour lead time) due to decreased generation availability and increased FUM value (MN 100256).</p> <p>Forecast LOR2 conditions were cancelled, redeclared and cancelled several times for the similar effective period. The forecast LOR conditions fluctuated due to changes in FUM value (MN 100257, 100258, 100274, 100277, 100280, 100286)</p>
19/07/2022	QLD				1			<p>A forecast LOR2 was declared with effective period 06:30 - 07:00 (63 hour lead time) due to decreased generation availability and increased FUM value (MN 100285).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100293).</p>
20/07/2022	QLD	1			3			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:30 - 07:00 (71 hour lead time) due to decreased generation availability and increase in FUM value (MN 100315).</p> <p>Several updates to the forecast LOR2 were issued due to changes in effective period 06:30 - 8:00 and forecast reserve levels. The forecast LOR2 conditions fluctuated due to changes in FUM value and generation availability (MN 100316, 100334).</p> <p>A forecast LOR1 was declared with effective period 11:00 - 11:30 (48 hour lead time) due to decreased generation availability and increased forecast demand (MN 100344).</p> <p>LOR2 and LOR1 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 06:30 - 8:00. The forecast LOR conditions worsened or improved due to fluctuations in FUM value and forecast demand and generation availability (MN 100348, 100350, 100352, 100355, 100358, 100359, 100360, 100362).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 19:00 - 20:00 (5 day lead time) due to decreased generation availability, increased forecast demand and increased FUM value.</p> <p>LOR2 (68 hour lead time) and LOR1 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 17:00 - 21:00. The forecast LOR conditions worsened or improved due to changes in FUM value and forecast demand and generation availability (MN 100282, 100323, 100334, 100336, 100338, 100339, 100340, 100344, 100360, 100362, 100364, 100367).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>The LOR2 condition was downgraded to LOR1 condition due to increased generation availability, Several updates to the forecast LOR1 were issued due to changes in effective period 17:00 – 20:00 and forecast reserve levels. The forecast LOR1 conditions improved due to decreased demand forecast (MN 100369, 100377, 100382, 100396, 100399).</p> <p>An actual LOR1 was declared due to due to increased demand (MN 100401). Actual conditions existed from 17:30 - 19:00.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 100403).</p>
21/07/2022	QLD	1			2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 10:30 - 11:00 (70 hour lead time) due to decreased generation availability and increased FUM value (MN 100347).</p> <p>Several updates to the forecast LOR2 were issued due to changes in effective period 10:00 - 11:30 and forecast reserve levels. The forecast LOR2 conditions fluctuated due to changes in FUM value and generation availability and demand forecast (MN 100355, 100358, 100359, 100361, 100363, 100374, 100378, 100380, 100385, 100391).</p> <p>The forecast LOR2 was cancelled due to increased generation availability and decreased FUM value (MN 100394).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 19:00 - 20:30 (6 day lead time) due to decreased generation availability and increased forecast demand (MN 100269).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period 18:00 – 20:30 and forecast reserve levels. The forecast LOR1 conditions fluctuated due to changes in generation availability and demand forecast (MN 100283, 100349).</p> <p>A forecast LOR2 was declared with effective period 17:00 - 21:30 (65.28 hour lead time) due to decreased generation availability and increased FUM value (MN 100358).</p> <p>Forecast LOR2 and LOR1 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 17:00 – 21:30. The forecast LOR conditions fluctuated due to changes in FUM value and generation availability (MN 100358, 100359, 100361, 100361, 100363, 100374, 100374, 100378, 100380, 100380, 100384, 100384, 100385, 100391, 100398, 100405, 100407, 100409, 100416, 100417).</p> <p>An actual LOR1 was declared due to increased demand (MN 100426). Actual conditions existed from 17:30 - 18:30.</p> <p>The actual LOR1 condition was cancelled due to increased generation availability. (MN 100427).</p>
22/07/2022	QLD				2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective periods 07:00 - 07:30 and 10:30 – 11:00 (68 hour lead time) due to decreased generation availability and increased FUM value (MN 100365, 100370).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>The forecast LOR2 condition was cancelled and redeclared (45 hour lead time) for the similar effective period, 06:30 – 08:00, due to fluctuations in the FUM value (MN 100368, 100386). Several updates to the forecast LOR2 were issued due to changes in effective period and forecast reserve levels. The forecast LOR2 conditions fluctuated due to changes in the FUM value (MN 100389, 100392).</p> <p>These LOR conditions cleared due to increased generation and decreased FUM value.</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 17:00 - 21:30 (65 hour lead time) due to decreased generation availability and increased forecast demand (MN 100379). LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 18:00 - 21:00. The forecast LOR1 conditions worsened or improved due to changes in FUM value (MN 100381, 100386, 100389, 100392, 100395, 100409, 100413)</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100414).</p>
24/07/2022	QLD		1					<p>A forecast LOR1 was declared with effective period 17:30 - 19:30 (1 hour lead time) due to decreased generation availability (MN 100471).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100473).</p>
25/07/2022	QLD		1		1			<p>A forecast LOR2 was declared with effective period 19:30 - 20:00 (30 hour lead time) due to decreased generation availability (MN 100454).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100470).</p> <p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (2 hour lead time) due to decreased generation availability and reduced net import (MN 100493).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100495).</p>
26/07/2022	QLD		1					<p>A forecast LOR1 was declared with effective period 18:00 - 18:30 (6 hour lead time) due to decreased generation availability (MN 100510).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period and forecast reserve levels. The forecast LOR condition worsened due to decreased generation availability (MN 100514, 100527)</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100531).</p>
27/07/2022	QLD		1		2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:30 - 07:00 (42 hour lead time) due to decreased generation availability and increased FUM value (MN 100485).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 17:00 - 20:00 (68 hour lead time) due to decreased generation availability and increased FUM value (MN 100474).</p> <p>Forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times,</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>due to changing effective period and forecast reserve levels. The effective period ranged 17:00 – 22:30. The forecast LOR conditions worsened or improved due to changes in FUM value and generation availability (MN 100478, 100479, 100481, 100485, 100488, 100499, 100503, 100505, 100512, 100513, 100523, 100524, 100526, 100532, 100536)</p> <p>The forecast LOR1 was cancelled due to decreased FUM value (MN 100537).</p>
28/07/2022	QLD		1		2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:30 - 07:30 (65 hour lead time) due to decreased generation availability and increased FUM value (MN 100485).</p> <p>Several updates to the forecast LOR2 condition were issued with similar effective periods with no significant change to previous LOR condition (MN 100486, 100496, 100506, 100509, 100511, 100534).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 20:00 - 21:00 (3 day lead time) due to decreased generation availability (MN 100492).</p> <p>A forecast LOR2 was declared with effective period 17:00 - 20:00 (68 hour lead time) due to decreased generation availability and increased FUM value (MN 100496).</p> <p>Forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 17:00 – 22:30. The forecast LOR conditions worsened or improved due to changes in FUM value and generation availability (MN 100498, 100506, 100509, 100511, 100521, 100528, 100530, 100534, 100540, 100544, 100544, 100547, 100568, 100572, 100572)</p> <p>The forecast LOR1 was cancelled due to decreased demand forecast (MN 100574).</p>
29/07/2022	QLD		1		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:30 - 07:00 (69 hour lead time) due to decreased generation availability and increased FUM value (MN 100504).</p> <p>Forecast LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 05:30 – 06:30. The forecast LOR conditions worsened or improved due to changes in FUM value (MN 100507, 100518, 100529, 100535, 100543, 100551, 100556, 100558, 100562, 100563, 100566).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100567).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 19:30 - 20:30 (34 hour lead time) due to decreased generation availability and increased FUM value (MN 100562).</p> <p>Forecast LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The effective period ranged 17:30 – 20:30. The forecast LOR conditions worsened or improved due to changes in FUM value and</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								generation availability (MN 100563, 100566, 100594, 100601) The forecast LOR1 was cancelled due to decreased FUM value (MN 100604).
30/07/2022	QLD				1			A forecast LOR2 was declared with effective period 17:30 - 21:00 (65 hour lead time) due to decreased generation availability and increased FUM value. (MN 100557). Several updates to the forecast LOR2 were issued due to changes in effective period and forecast reserve levels. The forecast LOR condition worsened due to decreased generation availability (MN 100565, 100576, 100576, 100578) The forecast LOR1 was cancelled due to decreased FUM value (MN 100596).
31/07/2022	QLD		1		1			A forecast LOR2 was declared with effective period 17:00 - 20:00 (3.09 day lead time) due to decreased generation availability and increased FUM value (MN 100571). Several updates to the forecast LOR2 were issued due to changes in effective period and forecast reserve levels. The forecast LOR condition worsened due to decreased generation availability (100577, 100579, 100610).
1/08/2022	QLD		1		2			Morning Peak: A forecast LOR2 was declared with effective period 06:30 - 07:30 (69 hour lead time) due to decreased generation availability and increased FUM value (MN 100581). Several updates to the forecast LOR2 were issued due to changes in effective period 06:00 – 08:00 and forecast reserve levels. The forecast LOR condition worsened and improved due to fluctuating FUM value (MN 100602, 100605). Evening Peak: A forecast LOR1 was declared with effective period 18:00 - 20:30 (3 day lead time) due to decreased generation availability (MN 100597). A forecast LOR2 was declared with effective period 16:30 - 20:00 (67 hour lead time) due to decreased generation availability and decreased FUM value (MN 100605). Forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The forecast LOR conditions fluctuated due to changes FUM value and generation availability (MN 100607, 100610, 100617, 100622, 100624, 100628, 100643, 100660) The forecast LOR1 was cancelled due to increased generation availability and decreased FUM value (MN 100666).
2/08/2022	QLD		1		1			Morning Peak: A forecast LOR2 was declared with effective period 06:00 - 07:30 (68 hour lead time) due to decreased generation availability and increased FUM value (MN 100610). Several updates to the forecast LOR2 condition were issued with similar effective periods with no significant change to previous LOR condition (MN 100617, 100624). Evening Peak:

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>A forecast LOR1 was declared with effective period 17:00 - 19:00 (24 hour lead time) due to decreased generation availability and increased FUM value (MN 100661).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period 17:00 – 19:00 and forecast reserve levels. The forecast LOR condition improved and worsened due to change in generation availability (MN 100667, 100686).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100688).</p>
3/08/2022	QLD	1			2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 06:00 - 07:30 (62 hour lead time) due to decreased generation availability and increased forecast demand (MN 100631).</p> <p>The forecast LOR2 condition was cancelled and redeclared (44 hour lead time) for the similar effective period (06:30 – 07:00) due to change in the FUM value (MN 100640, 100645).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100651).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 20:00 - 21:00 (57 hour lead time) due to decreased generation availability and increased FUM value (MN 100645).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100651).</p> <p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (11 hour lead time) due to increased forecast demand (MN 100723).</p> <p>An actual LOR1 was declared due to decreased generation availability (MN 100732).</p> <p>Actual conditions existed from 17:00 - 19:00.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 100736).</p>
4/08/2022	QLD				1			<p>A forecast LOR2 was declared with effective period 06:00 - 07:00 (65 hour lead time) due to decreased generation availability and increased FUM value (MN 100646).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100653).</p>
7/08/2022	QLD		1					<p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (1 hour lead time) due to decreased generation availability (MN 100792).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100793).</p>
8/08/2022	QLD		1					<p>A forecast LOR1 was declared with effective period 17:30 - 19:30 (4 hour lead time) due to decreased generation availability (MN 100796).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100801).</p>
11/08/2022	QLD				1			<p>A forecast LOR2 was declared with effective period 19:00 - 20:30 (53 hour lead time) due to decreased generation availability and increase in FUM (100809).</p> <p>An update to the forecast LOR2 condition was issued (51.6 hour lead time) due to change in effective period 19:30 - 20:00 and forecast reserve level. The forecast reserve level improved due to decreased FUM value (MN 100814).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								The forecast LOR2 was cancelled due to decreased FUM value (MN 100818).
12/08/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 06:00 - 06:30 (3 hour lead time) reduced net import (MN 100898).</p> <p>An update to the forecast LOR1 condition was issued (2 hour lead time) due to change in effective period 05:30 – 07:00 and forecast reserve level. The forecast reserve level worsened due to decreased generation availability (MN 100814).</p> <p>An actual LOR1 was declared due to decreased generation availability and reduced net import (MN 100902). Actual conditions existed from 05:00 - 07:00.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 100903).</p>
13/08/2022	QLD	3			2			<p>Morning Peak: An actual LOR1 was declared due to decreased generation availability and reduced net import and increased demand forecast (MN 100926). Actual conditions existed from 06:00 - 06:30. The actual LOR1 condition was cancelled when the effective period elapsed (MN 100927).</p> <p>Midday: A forecast LOR1 was declared with effective periods of 11:00 - 11:30 (20 hour lead time) and 14:00 - 14:30 (23 hour lead time) due to increased forecast demand and reduced net import (MN 100918). Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 100922 and MN 100924). A forecast LOR2 was declared with an effective period 11:00 - 11:30 (2 hour lead time) due to reduced net import and increased forecast demand (MN 100929). The forecast LOR2 was cancelled due to increased net import (MN 100932). A forecast LOR2 was redeclared with an effective period 11:00 - 13:00 (48 minute lead time) due to reduced net import and increased forecast demand (MN 100933). The forecast LOR2 was cancelled due to increased net import (MN 100934).</p> <p>Evening Peak: A forecast LOR2 was declared with an effective period 19:30 - 20:00 (47 hour lead time) due to decreased generation availability and increased forecast demand (MN 100892). Several updates to the forecast LOR2 condition were issued with similar effective periods. The forecast LOR2 condition improved or worsened due to change in generation availability and forecast demand (MN 100893 and MN 100894). A forecast LOR1 was declared with an effective period 17:30 - 21:30 (28 hour lead time) due to decreased generation availability and reduced net import (MN 100910). Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>and net import (MN 100918, MN 100922 and MN 100924, MN 100936, MN 100946).</p> <p>An actual LOR1 was declared due to decreased generation availability and reduced net import and increased demand forecast. Actual conditions expected to exist from 08:30 - 22:00 (MN 100930).</p> <p>The actual LOR1 condition was cancelled due to increased generation availability (MN 100935).</p> <p>An actual LOR1 was redeclared due to reduced net import and increased demand (MN 100950). Actual conditions existed from 16:45 - 22:30.</p> <p>The actual LOR1 condition cancelled due to increased generation availability (MN 100953).</p>
15/08/2022	QLD	1	1		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:30 - 07:00 (4 day lead time) due to decreased generation availability and reduced net import (MN 100891).</p> <p>A forecast LOR2 was declared with effective period 06:30 - 07:00 (70 hour lead time) due to decreased generation availability, reduced net import and increased FUM value (MN 100905).</p> <p>Forecast LOR2 and LOR1 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The forecast LOR conditions fluctuated due to changes FUM value and generation availability (MN 100906, 100908, 100911, 100923)</p> <p>The forecast LOR1 and LOR2 was cancelled due to decreased FUM value (MN 100912, 100925).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 18:00 - 21:00 (4 day lead time) due to decreased generation availability and reduced net import (MN 100891).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN)</p> <p>A forecast LOR2 was declared with effective period 17:30 - 19:00 (70 hour lead time) due to decreased generation availability, reduced net import and increased FUM value (MN 100921).</p> <p>The forecast LOR2 was cancelled due to decreased FUM value (MN 100925).</p> <p>Forecast LOR1 were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The forecast LOR conditions fluctuated due to changes in FUM value (100981, 100982, 100990).</p> <p>An actual LOR1 was declared due to reduced net import (MN 100992). Actual conditions existed from 17:30 - 18:30.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 100993).</p>
16/08/2022	QLD	2			2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:00 - 07:00 (5 day lead time) due to decreased generation availability and reduced net import (MN 100888).</p>

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>An update to the forecast LOR1 condition was issued (4 day lead time) with no significant change to previous LOR condition (MN 100913).</p> <p>A forecast LOR2 was declared with effective period 06:00 - 07:00 (71 hour lead time) due to decreased generation availability and increased FUM value (MN 100928).</p> <p>Forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve levels. The forecast LOR conditions fluctuated due to changes in FUM value (MN 100942, 100955, 100958, 100961, 100965, 100970, 100974, 100979).</p> <p>An actual LOR1 was declared due to reduced net import and increased demand (MN 101012).</p> <p>Actual conditions existed from 06:30 - 07:30.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 101013).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 19:30 - 21:00 (7 day lead time) due to decreased generation availability and reduced net import (MN 100811).</p> <p>Several updates to the forecast LOR1 condition were issued with effective periods ranging 17:30 – 22:30. The forecast LOR1 condition improved or worsened due to change in generation availability and demand forecast (MN 100841, 100888, 100913, 100941)</p> <p>A forecast LOR1 was declared with effective period 17:00 - 22:00 (60 hour lead time) due to decreased generation availability and reduced net import and increased FUM value (100955).</p> <p>Forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period ranged 17:00 – 22:00 and forecast reserve levels. The forecast LOR conditions fluctuated due to changes in FUM value (MN 100958, 100958, 100961, 100965, 100970, 100974, 100977, 100979, 101022, 101027, 101031, 101033, 101046).</p> <p>An actual LOR1 was declared due to reduced net import and decreased generation availability (MN 101051).</p> <p>Actual conditions existed from 17:30 - 20:30.</p> <p>The actual LOR1 condition was cancelled due to increased generation availability. (MN 101058).</p> <p>A forecast LOR1 was declared with effective period 19:30 - 21:00 (7 day lead time) due to decreased generation availability and reduced net import (MN 100811).</p> <p>Several updates to the forecast LOR1 condition were issued with effective periods ranging 17:30 – 22:30. The forecast LOR1 condition improved or worsened due to change in generation availability and demand forecast (MN 100841, 100888, 100913, 100941)</p> <p>A forecast LOR1 was declared with effective period 17:00 - 22:00 (60 hour lead time) due to decreased generation availability and reduced net import and increased FUM value (100955).</p> <p>Forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times,</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>due to changing effective period ranged 17:00 – 22:00 and forecast reserve levels. The forecast LOR conditions fluctuated due to changes in FUM value (MN 100958, 100958, 100961, 100965, 100970, 100974, 100977, 100979, 101022, 101027, 101031, 101033, 101046).</p> <p>An actual LOR1 was declared due to reduced net import and decreased generation availability (MN 101051).</p> <p>Actual conditions existed from 17:30 - 20:30.</p> <p>The actual LOR1 condition was cancelled due to increased generation availability. (MN 101058).</p>
17/08/2022	QLD		2		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:30 – 07:00 (7 day lead time) due to decreased generation availability (MN 100842).</p> <p>Several updates to the forecast LOR1 condition were issued due to change in effective period and forecast reserve level. The effective period ranged 05:30 – 07:30. The forecast LOR condition improved due to decreased FUM level (MN 100889, MN 100914, MN 100943).</p> <p>A forecast LOR2 was declared with effective period 05:00 – 08:00 (70 hour lead time) due to increased FUM level (MN 100956). This declaration replaced the LOR1 declaration made in MN 100842.</p> <p>Several updates to the forecast LOR2 condition were issued with similar effective period due to change forecast reserve level. The forecast LOR condition changed due to change FUM level.</p> <p>(MN 100962, MN 100966, MN 100971, MN 100975, MN 100983, MN 100989, MN 100996, MN 101015)</p> <p>The forecast LOR2 condition was cancelled due to decreased FUM level and increased generation availability (MN 101029).</p> <p>Evening Peak:</p> <p>With a 7 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 17:30 – 22:00. The forecast LOR conditions worsened or improved due to changes in FUM level and generation availability.</p> <p>(MN 100842, MN 100889, MN 100914, MN 100943, MN 100959, MN 100966, MN 100971, MN 100975, MN 100983, MN 100989, MN 100996, MN 101015, MN 101024, MN 101030, MN 101029, MN 101040, MN 101047, MN 101049, MN 101060, MN 101061, MN 101131, MN 101141)</p>
18/08/2022	QLD	1	1		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:00 – 07:00 (7 day lead time) due to decreased generation availability (MN 100890).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective period. The</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>forecast LOR condition improved due to increased generation availability (MN 100916, MN 100944, MN 100960).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 100967).</p> <p>A forecast LOR2 was declared with effective period 05:30 – 06:00 (70 hour lead time) due to increased FUM level (MN 100968).</p> <p>Several updates to the forecast LOR2 condition were issued due to change in effective period and forecast reserve level. The effective period ranged 05:30 – 07:30. The forecast LOR condition improved due to decreased FUM level (MN 100969, MN 100972, MN 100976, MN 100980, MN 100997).</p> <p>The forecast LOR2 condition was cancelled due to decreased FUM level (MN 101037).</p> <p>A forecast LOR1 was redeclared with effective period 06:30 – 07:00 (25 hour lead time) due to increased FUM (MN 101063).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and decreased FUM (MN 101069).</p> <p>An actual LOR1 condition was present between 06:30 – 07:30 due to increased demand (MN 101147, MN 101148).</p> <p>Evening Peak:</p> <p>With a 7 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 17:30 – 22:00. The forecast LOR conditions worsened or improved due to changes in FUM level.</p>
19/08/2022	QLD		2		1			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:30 – 07:00 (4 day lead time) due to decreased generation availability (MN 100985).</p> <p>A forecast LOR2 was declared with effective period 06:00 – 07:00 (70 hour lead time) due to increased FUM level (MN 101014). This declaration replaced the LOR1 declaration made in MN 100985.</p> <p>Several updates to the forecast LOR2 condition were issued due to change in effective period and forecast reserve level. The effective period ranged 05:30 – 07:30. The forecast LOR condition improved due to decreased FUM level and increased generation availability (MN 101017, MN 101020, MN 101026, MN 101038).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and decreased FUM level (MN 101042).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 17:30 – 18:00 (2 hour lead time) due to decreased generation availability (MN 101210).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								101219). A forecast LOR1 was redeclared with effective period 19:00 – 19:30 (2 hour lead time) due to decreased generation availability (MN 101222). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101223).
21/08/2022	QLD		1		1			Morning Peak: A forecast LOR2 was declared with effective period 06:00 – 07:00 (66 hour lead time) due to increased FUM level (MN 101150). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101152). Evening Peak: A forecast LOR1 was declared with effective period 20:00 – 20:30 (6 day lead time) due to increased forecast demand (MN 100986). The forecast LOR1 condition was cancelled due to decreased forecast demand (MN 101036).
22/08/2022	QLD				2			Morning Peak: A forecast LOR2 was declared with effective period 06:30 – 07:00 (69 hour lead time) due to increased FUM level (MN 101190). Several updates to the forecast LOR2 condition were issued due to change in effective period and forecast reserve level. The effective period ranged 06:00 – 07:30. The forecast LOR condition improved or worsened due to changes in FUM level (MN 101193, MN 101194). The forecast LOR2 condition was cancelled due to decreased FUM level (MN 101197). Midday: A forecast LOR2 was declared with effective period 14:00 – 14:30 (51 hour lead time) due to increased forecast demand (MN 101225). Several updates to the forecast LOR2 condition were issued due to change in effective period and forecast reserve level. The effective period was updated to include 11:00 – 11:30. The forecast LOR condition worsened or improved due to changes in forecast demand (MN 101227, MN 101237). The forecast LOR2 condition was cancelled due to decreased forecast demand (MN 101242).
24/08/2022	QLD				1			A forecast LOR2 was declared with effective period 06:00 – 07:00 (55 hour lead time) due to increased FUM level (MN 101270). The forecast LOR2 condition was cancelled due to decreased FUM level (MN 101273).
25/08/2022	QLD				1			A forecast LOR2 was declared and cancelled twice with effective period 06:00 – 07:00 (69 hour and 56 hour lead times) due to fluctuating FUM level MN 101288, MN 101301, MN 101315, MN 101322).

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
5/09/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 17:30 - 19:30 (10 hour lead time) due to decreased generation availability and increased forecast demand (MN 101477).</p> <p>An actual LOR1 was declared due to increased demand forecast (MN 101482). Actual conditions existed from 18:00 - 19:00.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 101485)</p>
6/09/2022	QLD	1			1			<p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (6 day lead time) due to decreased generation availability and reduced net import (MN 101444).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability. (MN 101486, 101496, 101519).</p> <p>A forecast LOR2 was declared with effective period 18:00 - 18:30 (14 minute lead time) due to decreased generation availability (MN 101522).</p> <p>The forecast LOR2 condition was cancelled due to decreased demand (MN 101523).</p> <p>An actual LOR1 was declared due to decreased generation availability and reduced net import (MN 101521). Actual conditions existed from 17:00 - 21:00.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 101525).</p>
7/09/2022	QLD		1					<p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (7 day lead time) due to decreased generation availability (MN 101445).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 101453).</p> <p>A forecast LOR1 was redeclared for a similar effective period of 18:00 - 18:30 (13 hour lead time) due to decreased generation availability and reduced net import (MN 101527).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 101529).</p>
11/09/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 17:30 - 18:30 (3 hour lead time) due to decreased generation availability (MN 101602).</p> <p>An update to the forecast LOR1 was issued due to a change in effective period (17:30 - 19:30) and forecast reserve level (29 minute lead time). The forecast LOR1 condition worsened due to decreased generation availability (MN 101607)</p> <p>An actual LOR1 was declared due to decreased generation availability and reduced net import (MN 101609). Actual conditions existed from 17:00 - 19:30.</p> <p>The actual LOR1 condition was cancelled due to a decrease in demand (MN 101611).</p>
12/09/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (2 hour lead time) due to decreased generation availability and increased forecast demand (MN 101625).</p> <p>The forecast LOR1 was cancelled due to decreased demand forecast (MN 101626).</p> <p>A forecast LOR1 was redeclared for 17:30 - 19:00 (0 hour lead time) due to decreased</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>generation availability (MN 101628).</p> <p>An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 17:30 - 19:30 (MN 101631).</p> <p>The actual LOR1 condition was cancelled due to a decrease in demand (MN 101633).</p>
13/09/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 18:00 - 19:30 (0.48 hour lead time) due to decreased generation availability and increased forecast demand (MN 101665).</p> <p>An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 18:00 - 19:30 (MN 101631, 101669).</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 101672).</p>
14/09/2022	QLD	1						<p>A forecast LOR1 was declared with effective period 18:00 - 19:00 (12 hour lead time) due to decreased generation availability (MN 101673).</p> <p>The forecast LOR1 condition was cancelled and redeclared (8 hour lead time) for the same effective period due to change in forecast demand (MN 101675, 101679).</p> <p>An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 17:30 - 19:30 (MN 101710).</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed. (MN 101712).</p>
26/09/2022	QLD		1					<p>A forecast LOR1 was declared with effective period 17:30 - 18:00 (3 hour lead time) due to decreased generation availability (MN 101941).</p> <p>An update to the forecast LOR1 condition was issued with a similar effective period of 18:00 - 20:00 (2 hour lead time). The forecast LOR1 condition changed due to changes in generation availability (MN 101944).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 101947).</p>
1/07/2022	SA		2		2			<p>Morning Peak:</p> <p>With a 6 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 07:00 – 10:00. The forecast LOR conditions worsened or improved due to changes in generation availability and FUM level.</p> <p>(MN 99471, MN 99474, MN 99479, MN 99620, MN 99703, MN 99709, MN 99716, MN 99723, MN 99727, MN 99728, MN 99742, MN 99749, MN 99754, MN 99759)</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 99762).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 99775).</p> <p>Evening Peak:</p> <p>With a 4 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 17:00 – 18:30. The forecast LOR conditions worsened or improved due to changes in generation availability.</p> <p>(MN 99709, MN 99716, MN 99723, MN 99727, MN 99736, MN 99742, MN 99759)</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 99762).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 99775).</p>
2/07/2022	SA		1					<p>A forecast LOR1 was declared with an effective period 18:30 - 19:00 (3 day lead time) due to decreased generation availability (MN 99756).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 99780).</p>
4/07/2022	SA		2		1			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with an effective period 08:00 - 08:30 (7 day lead time) due to decreased generation availability (MN 99717).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 99760).</p> <p>Evening Peak:</p> <p>With a 7 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 17:30 – 21:00. The forecast LOR conditions worsened or improved due to changes in generation availability and FUM level.</p> <p>(MN 99710, MN 99717, MN 99718, MN 99731, MN 99737, MN 99743, MN 99747, MN 99760, MN 99768, MN 99769, MN 99776, MN 99791, MN 99805)</p>
5/07/2022	SA		1		1			<p>With a 7 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 17:30 – 21:30. The forecast LOR conditions worsened or improved due to changes in generation availability and net import.</p> <p>(MN 99738, MN 99741, MN 99748, MN 99758, MN 99763, MN 99771, MN 99777, MN 99792, MN 99785, MN 99806)</p>
6/07/2022	SA		2		1			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 08:00 – 08:30 (6 day lead time) due to decreased generation availability (MN 99778).</p> <p>The forecast LOR1 condition was cancelled due to increased net import (MN 99807).</p> <p>Evening Peak:</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>With a 7 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period and forecast reserve level. The effective period ranged 17:30 – 22:30. The forecast LOR conditions worsened or improved due to changes in generation availability and net import.</p> <p>(MN 99751, MN 99757, MN 99764, MN 99767, MN 99770, MN 99778, MN 99786, MN 99793, MN 99798, MN 99807)</p>
7/07/2022	SA		2		1			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 07:30 – 09:00 (6 day lead time) due to decreased generation availability (MN 99794).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period and forecast reserve level. The LOR1 condition improved due to increased generation availability (MN 99808, MN 99823).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability and net import (MN 100007).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective periods 18:00 – 21:30 (6 day lead time) due to decreased generation availability (MN 99794).</p> <p>A forecast LOR2 was declared with effective period 18:30 – 19:00 (5 day lead time) due to decreased generation availability (MN 99751).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 99817).</p> <p>Several updates to the forecast LOR1 were issued due to changes in effective period and forecast reserve levels. The LOR1 condition improved due to increased generation availability (MN 99808, MN 99823).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 100007).</p>
8/07/2022	SA		2					<p>A forecast LOR1 was declared with effective period 18:30 – 20:30 (3 day lead time) due to decreased generation availability (MN 100747).</p> <p>A forecast LOR2 was declared with effective period 18:30 – 20:30 (3 day lead time) due to decreased generation availability (MN 100753).</p> <p>An update to the forecast LOR2 was issued due to a change in effective period and forecast reserve level. The forecast LOR conditions worsened due to decreased generation availability (MN 100756).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100764).</p> <p>An update to the forecast LOR1 condition was issued due to changes in effective period and forecast reserve level. The forecast LOR conditions improved due to increased generation</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								availability (MN 100765). The forecast LOR1 condition was cancelled due to increased generation availability.
9/07/2022	SA		1					A forecast LOR1 was declared with effective period 18:00 – 21:00 (7 day lead time) due to decreased generation availability (MN 99810). Several updates to the forecast LOR1 were issued due to changes in effective period and forecast reserve level. The LOR1 condition changed due to changed generation availability (MN 99825, MN 99896). The forecast LOR1 condition was cancelled due to increased generation availability (MN 100005).
16/07/2022	SA		1		1			A forecast LOR2 was declared with effective period 18:00 – 20:30 (28 hour lead time) due to decreased generation availability (MN 100266). The forecast LOR2 condition was cancelled due to increased generation availability (MN 100279). A forecast LOR1 was declared with effective period 18:30 – 19:00 (3 hour lead time) due to decreased generation availability (MN 100284). An update to the forecast LOR1 was issued due to a change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability (MN 100288). The forecast LOR1 condition was cancelled due to increased generation availability (MN 100291).
18/07/2022	SA	1	1		1			Morning Peak: A forecast LOR1 was declared with effective period 08:30 – 09:00 (19 hour lead time) due to decreased generation availability (MN 100321). Several updates were issued due to changes in effective period and forecast reserve level. The forecast LOR1 condition changed due to changed generation availability (MN 100325, MN 100331, MN 100335). The forecast LOR1 condition was cancelled due to increased generation availability. Evening Peak: A forecast LOR1 was declared with effective period 18:30 – 19:00 (4 day lead time) due to decreased generation availability (MN 100249). An update to the forecast LOR1 was issued due to a change in effective period and forecast reserve level. The forecast LOR1 condition worsened due to decreased generation availability (MN 100267). The forecast LOR1 condition was cancelled due to increased generation availability (MN 100275). A forecast LOR2 was declared with effective period 18:00 – 20:30 (49 hour lead time) due to

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>reduced net import and decreased generation availability (MN 100289).</p> <p>Several updates to the forecast LOR2 were issued due to changes in effective period and forecast reserve level. The LOR2 condition changed due to changed generation availability (MN 100294, MN 100295, MN 100314, MN 100320, MN 100324, MN 100330).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100332).</p> <p>A forecast LOR1 was declared with effective period 17:00 – 17:30 and 21:00 – 21:30 (27 hour lead time) due to decreased generation availability and reduced net import (MN 100321).</p> <p>Several updates were issued due to change in effective period and forecast reserve level. The forecast LOR1 condition changed due to changed generation availability (MN 100325, MN 100331, MN 100335, MN100343, MN 100345, MN 100351, MN 100354).</p> <p>A forecast LOR2 was redeclared with effective period 18:30 – 19:00 (14 hour lead time) due to decreased generation (MN 100337).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100346).</p> <p>An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 08:30 - 09:15 (MN 100356).</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 100357).</p>
23/07/2022	SA				1			<p>A forecast LOR2 was declared with effective period 18:30 – 19:30 (68 hour lead time) due to decreased generation availability and increased FUM (MN 100408).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100415).</p> <p>A forecast LOR2 was redeclared with effective period 18:00 – 21:00 (50 hour lead time) due to decreased generation availability and increased FUM (MN 100420).</p> <p>Several updates were issued due to changes in effective period and forecast reserve level. The forecast LOR2 condition worsened due to decreased generation availability (MN 100425, MN 100429, MN 100432).</p> <p>The forecast LOR2 condition was cancelled due to increased net import (MN 100435).</p>
24/07/2022	SA				1			<p>A forecast LOR2 was declared with effective period 00:00 – 01:00 (36 hour lead time) due to decreased generation availability (MN 100430).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and increased net import (MN 100439).</p>
27/07/2022	SA		1		2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 08:00 – 08:30 (46 hour lead time) due to decreased generation availability (MN 100480).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN</p>

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>100487).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (6 day lead time) due to decreased generation availability (MN 100419).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 100447).</p> <p>A forecast LOR2 was declared with effective period 18:00 – 18:30 (56 hour lead time) due to decreased generation availability (MN 100480).</p> <p>An update to the forecast LOR2 was issued due to a change in effective period and forecast reserve level. The forecast LOR2 condition worsened due to decreased generation availability (MN 100484).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100487).</p> <p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (28 hour lead time) due to decreased generation availability (MN 100515).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability and decreased forecast demand (MN 100550).</p>
28/07/2022	SA		2		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 07:30 – 09:00 (4 day lead time) due to decreased generation availability (MN 100460).</p> <p>A forecast LOR2 was declared with effective period 08:00 – 08:30 (69 hour lead time) due to decreased generation availability and high FUM (MN 100483).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability.</p> <p>A forecast LOR1 was redeclared twice more with effective period 08:00 – 08:30 (18 hour lead time and 15 hour lead time) due to decreased generation availability (MN 100546, MN100555).</p> <p>The forecast LOR1 conditions were cancelled due to increased generation availability (MN 100549, MN 100559).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (5 day lead time) due to decreased generation availability (MN 100448).</p> <p>A forecast LOR2 was declared with effective period 18:00 – 18:30 (4 day lead time) due to decreased generation availability (MN 100453).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100475).</p> <p>Several updates to the forecast LOR1 were issued due to change in effective period and forecast reserve level. The forecast LOR1 condition changed due to changed generation</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>availability (MN 100460, MN 100491).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability (MN 100525).</p> <p>A forecast LOR2 was redeclared with effective period 18:00 – 18:30 (69 hour lead time) due to decreased generation availability (MN 100497).</p> <p>Several updates to the forecast LOR2 were issued due to change in forecast reserve level. The forecast LOR2 condition changed with changed generation availability (MN 100502, MN 100517, MN 10541, MN 100545).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100548, MN 100554).</p>
2/08/2022	SA				2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 07:30 – 09:30 (36 hour lead time) due to decreased generation availability and high FUM (MN 100637).</p> <p>An update to the forecast LOR2 was issued due to a change in effective period and forecast reserve levels. The forecast LOR conditions improved due to decreased FUM (MN 100641).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and increased net import (MN 100644).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 16:00 – 22:00 (44 hour lead time) due to decreased generation availability and high FUM (MN 100637).</p> <p>An update to the forecast LOR2 was issued due to a change in effective period and forecast reserve levels. The forecast LOR conditions worsened due to increased forecast demand (MN 100641).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and increased net import (MN 100644).</p>
3/08/2022	SA				2			<p>Morning Peak:</p> <p>A forecast LOR2 was declared with effective period 08:00 – 09:00 (60 hour lead time) due to decreased generation availability and high FUM (MN 100637).</p> <p>An update to the forecast LOR2 was issued due to a change in forecast reserve levels. The forecast LOR conditions worsened due to increased forecast demand (MN 100641).</p> <p>The forecast LOR2 condition was cancelled due to increased net import (MN 100644).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 18:00 – 19:00 (70 hour lead time) due to decreased generation availability and high FUM (MN 100637).</p> <p>An update to the forecast LOR2 was issued due to a change in effective period and forecast reserve levels. The forecast LOR conditions worsened due to decreased generation (MN</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								100641). The forecast LOR2 condition was cancelled due to increased generation availability and increased net import (MN 100644).
7/08/2022	SA		1		1			A forecast LOR1 was declared with effective period 18:30 – 20:30 (3 day lead time) due to decreased generation availability (MN 100747). A forecast LOR2 was declared with effective period 18:30 – 20:30 (3 day lead time) due to decreased generation availability (MN 100753). An update to the forecast LOR2 was issued due to a change in effective period and forecast reserve level. The forecast LOR conditions worsened due to decreased generation availability (MN 100756). The forecast LOR2 condition was cancelled due to increased generation availability (MN 100764). An update to the forecast LOR1 condition was issued due to a change in effective period and forecast reserve level. The forecast LOR conditions improved due to increased generation availability (MN 100765). The forecast LOR1 condition was cancelled due to increased generation availability.
8/08/2022	SA	1	1		2			Morning Peak: A forecast LOR2 was declared with effective period 07:30 – 08:30 (68 hour lead time) due to decreased generation availability (MN 100758). The forecast LOR2 condition was cancelled due to increased generation (MN 100763). A forecast LOR1 was declared with effective period 07:30 – 08:30 (62 hour lead time) due to the cancellation of the LOR2 after generation availability increased (MN 100766). An update to the forecast LOR1 was issued due to change in forecast reserve level. The forecast LOR condition worsened due to decreased generation availability (MN 100786). The forecast LOR1 condition was cancelled due to increased generation availability. Evening Peak: A forecast LOR1 was declared with effective period 18:30 – 19:30 (5 day lead time) due to decreased generation availability (MN 100727). A forecast LOR2 was declared with effective period 18:00 – 21:00 (3 day lead time) due to decreased generation availability (MN 100758). This replaced the forecast LOR1 declaration issued in market notice 100727. The forecast LOR2 condition was cancelled due to increased generation availability (MN 100763). An update to the forecast LOR1 was issued with effective period 18:00 – 21:30 (3 day lead time) due to the cancellation of the LOR2 after generation availability increased (MN 100766). A forecast LOR2 was declared with effective period 18:30 – 19:30 (67 hour lead time) due to

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>increased FUM (MN 100777).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 100782).</p> <p>An update to the forecast LOR1 was issued due to change in effective period and forecast reserve level. The forecast reserve level improved due to increased generation availability (MN 100786).</p> <p>Several forecast LOR2 conditions was declared and cancelled due to changed generation availability, FUM, and forecast demand (MN 100787, MN 100788, MN 100789, MN 100790, MN 100794).</p> <p>An actual LOR1 was declared with effective period 18:15 – 20:45 (MN 100802).</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 100803).</p>
15/08/2022	SA		2		2		1	<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 07:00 – 09:00 (7 day lead time) due to decreased generation availability (MN 100797).</p> <p>A forecast LOR2 was declared with effective period 08:00 – 08:30 (6 day lead time) due to decreased generation availability (MN 100808).</p> <p>A forecast LOR1 update was issued with effective period 06:30 – 07:30 and 08:30 – 09:30 (6 day lead time) due to decreased generation availability (MN 100810).</p> <p>An update to the forecast LOR2 was issued with effective period 07:30 – 09:00 (5 day lead time). The forecast reserve levels worsened due to increased forecast demand and decreased generation availability (MN 100821).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (7 day lead time) due to decreased generation availability (MN 100797).</p> <p>A forecast LOR2 was declared with effective period 17:30 – 18:30 (6 day lead time) due to decreased generation availability (MN 100806). This replaced the forecast LOR1 declaration issued in MN 100797.</p> <p>A forecast LOR1 update was issued with effective period 17:00 – 17:30 and 18:30 – 22:00 (6 day lead time) due to decreased generation availability (MN 100810).</p> <p>The forecast LOR2 condition improved before worsening due fluctuating generation availability and increased forecast demand (MN 100817, MN 100821).</p> <p>A forecast LOR3 was declared with effective period 18:00 – 18:30 (5 day lead time) due to increased forecast demand and decreased generation availability (MN 100822).</p> <p>The forecast LOR1, LOR2, and LOR3 were cancelled due to increased generation availability and net import (MN 100824, MN 100825, MN 100826).</p>
16/08/2022	SA	1	1		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 06:30 – 09:00 (6 day lead time) due to</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>decreased generation availability (MN 100844).</p> <p>A forecast LOR2 was declared with effective period 07:30 – 08:00 (5 day lead time) due to decreased generation availability (MN 100858).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100859).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100887).</p> <p>Evening Peak:</p> <p>A forecast LOR2 was declared with effective period 18:00 – 18:30 (6 day lead time) due to decreased generation availability (MN 100826).</p> <p>A forecast LOR1 was declared with effective period 17:30 – 18:00 (6 day lead time) due to decreased generation availability (MN 100844).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100848).</p> <p>A forecast LOR2 was redeclared with effective period 18:00 – 18:30 (6 day lead time) due to decreased generation availability and increased forecast demand (MN 100858).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 100859).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100887).</p> <p>A forecast LOR1 was declare and cancelled several times with effective period 19:00 – 20:00 (30 hour lead time) due to fluctuation in generation availability (MN 100978, MN 100987, MN 100991, MN 101052, MN 101054, MN 101055).</p> <p>An actual LOR1 was declared with effective period 19:30 – 20:15 (MN 101056).</p> <p>The actual LOR1 was cancelled when the effective period elapsed (MN 101057).</p>
18/08/2022	SA		1					<p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (6 day lead time) due to decreased generation availability (MN 100917).</p> <p>The forecast LOR1 was cancelled due to increased generation availability (MN 100945).</p>
20/08/2022	SA	1			1			<p>A forecast LOR2 was declared with effective period 19:00 – 21:00 (50 hour lead time) due to decreased generation availability (MN 101163).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 101169).</p> <p>A forecast LOR2 was redeclared with effective period 19:00 – 20:30 (37 hour lead time) due to decreased generation availability and increased forecast demand (MN 100858).</p> <p>The forecast LOR2 was cancelled due to increased generation availability (MN 101189).</p> <p>A forecast LOR1 was declared with effective period 18:30 – 22:00 (30 hour lead time) after the forecast LOR2 condition was cancelled (MN 101195).</p> <p>An updated to the forecast LOR1 was issued due to change in effective period to 19:00 – 22:30 (3 hour lead time). The forecast LOR condition changed due to increased forecast demand (MN 101247).</p> <p>An actual LOR1 was declared with effective period 18:30 – 22:45 (MN 101247).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								The actual LOR1 was cancelled when the effective period elapsed (MN 101248).
23/08/2022	SA		2		2			<p>Morning Peak: A forecast LOR1 was declared with effective period 08:30 – 09:00 (4 day lead time) due to decreased generation availability (MN 101199). A forecast LOR2 was declared with effective period 08:30 – 09:00 (3 day lead time) due to decreased generation availability and increased FUM (MN 101238). This replaced the forecast LOR1 condition issued in MN 101199. The forecast LOR2 condition was cancelled due to increased generation availability (MN 101249).</p> <p>Evening Peak: A forecast LOR1 was declared with effective period 18:30 – 20:00 (6 day lead time) due to decreased generation availability (MN 101099). A forecast LOR2 was declared with effective period 18:30 – 20:30 (6 day lead time) due to decreased generation availability (MN 101145). This replaced the forecast LOR1 condition issued in MN 101099. The forecast LOR condition fluctuated between LOR1 and LOR2 levels due to fluctuating generation availability (MN 101149, MN 101157, MN 101164, MN 101184, MN 101199, MN 101239). A forecast LOR2 was declared with effective period 19:30 – 21:30 (62 hour lead time) due to increased FUM (MN 101253). An update to the forecast LOR2 was issued due to a change in effective period (18:30 – 21:30) and forecast reserve levels. The forecast LOR conditions worsened due to decreased generation availability (MN 101255). An update to the forecast LOR1 was issued due to a change in effective period (21:30 – 22:00) due to decreased generation availability (MN 101263). The forecast LOR1 and LOR2 conditions were cancelled due to increase generation availability and increased net import (MN 101267, MN 101302).</p>
24/08/2022	SA		2		2			<p>Morning Peak: A forecast LOR1 was declared with effective period 07:30 – 08:00 (6 day lead time) due to decreased generation availability (MN 101200). A forecast LOR2 was declared with effective period 07:00 – 08:30 (3 day lead time) due to decreased generation availability (MN 101262). The forecast LOR2 condition was cancelled due to increased generation availability (MN 101303). The forecast LOR1 condition was cancelled due to</p> <p>Evening Peak: A forecast LOR1 was declared with effective period 18:00 – 21:00 (7 day lead time) due to</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>low generation availability (MN 101100).</p> <p>A forecast LOR2 was declared with effective period 19:00 – 20:00 (7 day lead time) due to decreased generation availability (MN 101142).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 101144).</p> <p>An update to the forecast LOR1 was issued with effective period 18:00 – 21:00 (6 day lead time) due to increased generation availability (MN 101158).</p> <p>A forecast LOR2 was declared with effective period 18:00 – 21:00 (6 day lead time) due to decreased generation availability (MN 101187).</p> <p>Several updates were issued for the LOR1 and LOR2 conditions due to change in effective period and forecast reserve levels. The forecast reserve level fluctuated due to fluctuating generation availability (MN 101198, MN 101200, MN 101220).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 101231).</p> <p>An update to the forecast LOR1 was issued with effective period 18:00 – 22:00 (4 day lead time) (MN 101240) after cancellation of LOR2 condition issued in MN 101231.</p> <p>A forecast LOR2 was redeclared with effective period 18:30 – 21:30 (4 day lead time) due to decreased generation availability (MN 101251).</p> <p>Several updates to the forecast LOR1 and LOR2 condition were issued due to change in effective period and forecast reserve levels. The forecast LOR condition changed due to fluctuating generation availability (MN 101262, MN 101264, MN 101268, MN 101272, MN 101286, MN 101287, MN 101289).</p> <p>The forecast LOR1 was cancelled (MN 101303) due to increased generation availability (MN 101303).</p> <p>Several updates to the forecast LOR2 condition were issued due to change in effective period and forecast reserve level, driven by change in generation availability (MN 101324 and MN 101328).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 101330).</p> <p>A forecast LOR1 was declared with effective period 18:30 – 22:00 (28 hour lead time) due to decreased generation availability (MN 101335).</p> <p>The forecast LOR1 was cancelled due to increased generation availability and net import (MN 101338).</p>
25/08/2022	SA		2		2			<p>Morning Peak:</p> <p>A forecast LOR1 was declared with effective period 07:30 – 08:30 (7 day lead time) due to decreased generation availability (MN 101200).</p> <p>Several updates to the forecast LOR1 were issued due to change in effective period and forecast reserve level. The forecast LOR condition worsened due to decreased generation</p>

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>availability (MN 101241, MN 101265).</p> <p>A forecast LOR2 was declared with effective period 06:00 – 09:00 (3 day lead time) due to increased FUM (MN 101290). This replaced the forecast LOR1 condition.</p> <p>Several updates to the forecast LOR2 were issued due to change in effective period and forecast reserve level. The forecast LOR condition fluctuated due to increased and decreased generation availability (MN 101292, MN 101295, MN 101311, MN 101316, MN 101319, MN 101321).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 101339).</p> <p>A forecast LOR1 was redeclared with effective period 07:30 – 08:30 (18 hour lead time) due to decreased generation availability (MN 101344).</p> <p>An update to the forecast LOR1 was issued due to change of effective period and forecast reserve level. The forecast LOR condition worsened due to decreased generation availability (MN 101349).</p> <p>The forecast LOR1 was cancelled due to increased generation capacity (MN 101350).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared with effective period 18:00 – 21:30 (7 day lead time) due to decreased generation availability (MN 101159).</p> <p>A forecast LOR2 was declared with effective period 19:00 – 21:00 (7 day lead time) due to decreased generation availability (MN 101165).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 101185).</p> <p>A forecast LOR1 update was issued with effective period 18:30 – 21:00 (6 day lead time) due to increased forecast reserve (MN 101201, MN 101241).</p> <p>Forecast LOR2 were declared, cancelled, and updated several times due to fluctuating generation availability (MN 101245, MN 101250, MN 101252, MN 101290, MN 101292, MN 101295, MN 101311, MN 101316, MN 101319, MN 101321, MN 101327, MN 101339).</p> <p>A forecast LOR1 was declared with effective period 17:30 – 18:00 (18 hour lead time) due to decrease in generation availability (MN 101344).</p> <p>The forecast LOR1 condition was updated (MN 101349), cancelled (MN 101350), redeclared (MN 101351), and updated several times (MN 101352, MN 101354, MN 101357) due to changing generation availability.</p> <p>The forecast LOR1 was cancelled due to increased generation and net import (MN 101358).</p> <p>Night:</p> <p>A forecast LOR1 was declared with effective period 20:30 – 01:30 (4 day lead time) due to decreased generation availability (MN 101265).</p> <p>A forecast LOR2 was declared with effective period 17:00 – 02:00 (51 hour lead time) due to decreased generation availability (MN 101321).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								The forecast LOR2 condition was cancelled due to increased generation availability and increased net import (MN 101339).
26/08/2022	SA		2		2			<p>Morning Peak:</p> <p>With a 5 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period (06:30 – 09:30) and forecast reserve levels. The forecast LOR conditions fluctuated due to changes in generation availability and FUM levels (MN 101266, MN 101305, MN 101323, MN 101325, MN 101329). A forecast LOR1 was declared with effective period 08:00 – 09:00 (28 hour lead time) due to decreased generation availability and decreased net import (MN 101355). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101377).</p> <p>Evening Peak:</p> <p>With a 5 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period 17:00 – 22:30 and forecast reserve levels. The forecast LOR conditions fluctuated due to change in generation availability and net import.</p> <p>(MN 101266, MN 101296, MN 101297, MN 101305, MN 101310, MN 101320, MN 101323, MN 101325, MN 101329, MN 101332, MN 101340, MN 101342, MN 101345)</p> <p>A forecast LOR1 was declared with effective period 17:30 – 18:30 (28 hour lead time) due to decreased generation availability and net import (MN 101355).</p> <p>Several updates to the forecast LOR1 condition were issued with similar effective periods. The forecast LOR1 condition improved or worsened due to change in generation availability and forecast demand (MN 101361, MN 101365, MN 101369, MN 101374, MN 101376). The forecast LOR1 condition was cancelled due to increased net import (MN 101377).</p>
29/08/2022	SA	1			1			<p>A forecast LOR2 was declared with effective period 06:30 – 07:00 (42 hour lead time) due to decreased generation availability and increased FUM level (MN 101382).</p> <p>The forecast LOR2 condition was cancelled due to decreased FUM levels (MN 101384).</p> <p>A forecast LOR1 was declared with effective period 06:00 – 08:00 (1 hour lead time) due to decreased generation availability (MN 101389).</p> <p>An update to the forecast LOR1 condition was issued due to changed effective period 07:00 – 08:00 and forecast reserve level. The forecast condition improved with improved generation availability (MN 101390).</p> <p>The forecast LOR1 was cancelled due to increased generation availability and decreased forecast demand (MN 101391).</p> <p>An actual LOR1 was declared with effective period 07:00 – 08:00 due to decreased generation availability (MN 101392).</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 101393).</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
30/08/2022	SA		2		1			<p>Morning Peak: A forecast LOR1 was declared with effective period 07:00 – 08:30 (5 day lead time) due to decreased generation availability (MN 101356). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101372).</p> <p>Evening Peak: A forecast LOR1 was declared with effective period 18:00 – 18:30 (6 day lead time) due to decreased generation availability and net import (MN 101346). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101372). A forecast LOR2 was declared with effective period 18:00 – 18:30 (32 hour lead time) due to decreased generation availability and increased FUM (MN 101394). The forecast LOR2 condition was cancelled due to increased net import (MN 101395).</p>
31/08/2022	SA		1					A forecast LOR1 was declared and cancelled twice with effective period 18:00 – 18:30 (5 day and 3 day lead times) due to fluctuating generation availability. (MN 101373, MN 101383, MN 101388, MN 101402).
1/09/2022	SA		1					A forecast LOR1 was declared and cancelled twice with effective period 07:30 – 08:00 (7 hour and 5 hour lead times) due to fluctuating generation availability and forecast demand. (MN 101447, MN 101448, MN 101449, MN 101450).
5/09/2022	SA		1					A forecast LOR1 was declared with effective period 18:30 – 19:30 (6 day lead time) due to decreased generation availability (MN 101435). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101446).
7/09/2022	SA		1					A forecast LOR1 was declared with effective period 19:30 – 20:00 (4 hour lead time) due to decreased generation availability and net import (MN 101538). The forecast LOR1 condition was cancelled due to increased net import (MN 101548).
8/09/2022	SA	1						A forecast LOR1 was declared with effective period 00:30 – 01:00 (10 hour lead time) due to decreased generation availability (MN 101538). The forecast LOR1 condition was cancelled due to increased net import (MN 101548). An actual LOR1 was declared with effective period 00:30 – 01:30 due to decreased generation availability (MN 101553). The actual LOR1 condition was cancelled when the effective period elapsed (MN 101554).
9/09/2022	SA		1					A forecast LOR1 was declared with effective period 18:00 – 18:30 (5 day lead time) due to decreased generation availability (MN 101538).

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								The forecast LOR1 condition was cancelled due to increased net import (MN 101548).
10/09/2022	SA	1			2			<p>Morning Peak: A forecast LOR2 was declared with effective period 05:30 – 09:00 (66 hour lead time) due to decreased generation availability and increased FUM (MN 101530). Several updates to the forecast LOR2 condition were issued with similar effective periods. The forecast LOR2 condition improved or worsened due to changes in generation availability and FUM level (MN 101533, MN 101541, MN 101543, MN 101555). The forecast LOR2 condition was cancelled due to increased net import (MN 101557).</p> <p>Evening Peak: With a 5 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period 17:00 – 23:59 and forecast reserve levels. The forecast LOR conditions fluctuated due to change in generation availability and net import. (MN 101480, MN 101506, MN 101530, MN 101534, MN 101533, MN 101541, MN 101543, MN 101555, MN 101557, MN 101558, MN 101573, MN 101575, MN 101577, MN 101580, MN 101584, MN 101585, MN 101586, MN 101589) An actual LOR1 was declared due to decreased generation availability (MN 101596). Actual conditions existed from 18:30 – 21:45. The actual LOR1 condition was cancelled when the effective period elapsed (MN 101597).</p>
11/09/2022	SA	1	1		1			<p>Early Morning: With a 3 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period 00:00 – 04:00 and forecast reserve levels. The forecast LOR conditions fluctuated due to change in generation availability and net import. (MN 101535, MN 101539, MN 101542, MN 101559, MN 101574, MN 101576, MN 101578, MN 101579, MN 101590, MN 101595)</p> <p>Evening Peak: An actual LOR1 was declared due to decreased generation availability (MN 101610). Actual conditions existed from 18:30 – 21:45. The actual LOR1 condition was cancelled when the effective period elapsed (MN 101612).</p>
12/09/2022	SA	2						<p>Morning Peak: With a 5 day lead time, forecast LOR1 conditions were declared and cancelled several times, due to changing effective period 06:30 – 09:00 and forecast reserve levels. The forecast LOR conditions fluctuated due to change in generation availability. (MN 101537, MN 101560, MN 101608, MN 101613, MN 101614) An actual LOR1 was declared due to decreased generation availability (MN 101619). Actual</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								<p>conditions existed from 07:00 – 08:15.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 101620).</p> <p>Evening Peak:</p> <p>A forecast LOR1 was declared and cancelled twice with effective period 19:00 – 19:30 (19 hour and 1 hour lead times) due to fluctuating generation availability (MN 101614, MN 101621, MN 101627, MN 101632).</p> <p>An actual LOR1 was declared due to decreased generation availability (MN 101634). Actual conditions existed from 19:00 – 19:45.</p> <p>The actual LOR1 condition was cancelled when the effective period elapsed (MN 101635).</p>
14/09/2022	SA		1		1			<p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (8 hour lead time) due to decreased generation availability (MN 101680).</p> <p>A forecast LOR2 was declared with effective period 18:00 – 18:30 (6 hour lead time) due to decreased generation availability (MN 101694).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability and increased net import (MN 101695).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability and increased net import (MN 101697).</p>
15/09/2022	SA				1			<p>A forecast LOR2 was declared with effective period 05:30 – 07:30 (43 hour lead time) due to decreased generation availability (MN 101641).</p> <p>An update to the forecast LOR2 condition was issued due to changed effective period 06:30 - 07:30 and forecast reserve level. The forecast condition improved due to increased generation availability (MN 101643).</p> <p>The forecast LOR2 condition was cancelled due to reduced FUM (MN 101650).</p> <p>A forecast LOR2 was redeclared with effective period 05:30 – 07:30 (19 hour lead time) due to decreased generation availability (MN 101676).</p> <p>The forecast LOR2 condition was cancelled due to increased generation availability (MN 101681).</p>
16/09/2022	SA				1			<p>A forecast LOR2 was declared with effective period 18:30 – 20:00 (56 hour lead time) due to decreased generation availability (MN 101677).</p> <p>The forecast LOR2 condition was cancelled due to reduced FUM (MN 101718).</p> <p>A forecast LOR2 was redeclared with effective period 19:00 – 20:00 (34 hour lead time) due to reduced FUM (MN 101719).</p> <p>The forecast LOR2 condition was cancelled due to reduced FUM (MN 101722).</p>
18/09/2022	SA		1					<p>A forecast LOR1 was declared with effective period 18:00 – 18:30 (5 day lead time) due to decreased generation availability (MN 101647).</p> <p>The forecast LOR1 condition was cancelled due to increased generation availability</p>

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								(MN 101700).
19/09/2022	SA		1		1			With a 4 day lead time, forecast LOR1 and LOR2 conditions were declared, updated, and cancelled several times, due to changing effective period 05:30 – 08:30 and forecast reserve levels. The forecast LOR conditions fluctuated due to change in generation availability, FUM level, and net import. (MN 101717, MN 101727, MN 101729, MN 101747, MN 101750, MN 101754, MN 101755, MN 101760)
20/09/2022	SA	1						An actual LOR1 was declared due to decreased generation availability (MN 101840). Actual conditions existed from 22:00 – 22:30. The actual LOR1 condition was cancelled when the effective period elapsed (MN 101841).
22/09/2022	SA	1						An actual LOR1 was declared due to decreased generation availability and increased demand (MN 101858). Actual conditions existed from 18:45 – 21:45. The actual LOR1 condition was cancelled when the effective period elapsed (MN 101861).
29/09/2022	SA		1					A forecast LOR1 was declared with effective period 06:30 – 07:30 (6 day lead time) due to decreased generation availability (MN 101857). The forecast LOR1 condition was cancelled due to increased generation availability (MN101902).
12/07/2022	VIC		1					A forecast LOR1 was declared with effective period 17:30 – 18:30 (7 hour lead time) due to decreased generation availability, increased forecast demand, and reduced net import (MN 100183). The forecast LOR1 condition was cancelled due to increased net import (MN 100198). A forecast LOR1 was redeclared with effective period 18:00 - 19:00 (1 hour lead time) due to reduced net import (MN 100201). The forecast LOR1 condition was cancelled due to increased net import.
29/07/2022	VIC		3					A forecast LOR1 was declared with effective period 04:00 – 23:59 (41 hour lead time) due to decreased generation availability (MN 100538). The forecast LOR1 condition was cancelled due to increased generation availability (MN 100552).
30/07/2022	VIC		1					A forecast LOR1 was declared with effective period 00:00 – 01:30 (61 hour lead time) due to decreased generation availability (MN 100539). The forecast LOR1 condition was cancelled due to increased generation availability (MN 100553).
8/08/2022	VIC				1			A forecast LOR1 was declared with effective period 06:30 – 09:00 (67 hour lead time) due to reduced net import and decreased generation availability (MN 100759). The forecast LOR1 condition was cancelled due to increased net import and increased

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								generation availability (MN 100762).
16/08/2022	VIC		1					A forecast LOR1 was declared with effective period 18:30 – 19:00 (3 day lead time) due to decreased generation availability (MN 100940). The forecast LOR1 condition was cancelled due to increased net import (MN 100957).
4/07/2022	TAS		1					A forecast LOR1 was declared with effective period 08:00 - 09:00 (65 hour lead time) due to decreased generation availability (MN 99789). An update to the forecast LOR1 was issued due to change in effective period and forecast reserve level. The effective period ranged 08:00 - 09:30 (18 hour lead time). The forecast LOR conditions worsened due to decreased generation availability (MN 99820). The forecast LOR1 was cancelled due to increased generation availability (MN 99828).
5/07/2022	TAS		1					A forecast LOR1 was declared with effective period 08:00 - 09:00 (5 day lead time) due to decreased generation availability (MN 99779). Several updates to the forecast LOR1 condition were issued due to change in effective period and forecast reserve level. The forecast LOR condition worsened due to decreased generation availability (MN 99788, MN 99812, MN 999829). The forecast LOR1 condition was cancelled due to increased generation availability (MN 99880).
6/07/2022	TAS		1					A forecast LOR1 was declared with effective period 08:00 - 09:00 (5 day lead time) due to decreased generation availability and increased forecast demand (MN 99790). An update to the forecast LOR1 condition was issued due to change in effective period and forecast reserve levels. The forecast LOR condition improved due to increased generation availability (MN 99895). The forecast LOR1 condition was cancelled due to increased generation availability and decreased forecast demand (MN 100008).
8/07/2022	TAS							A forecast LOR2 was declared with effective period 08:00 - 15:00 (19 hour lead time). This was investigated and due to an input error, this forecast LOR2 condition was declared to be invalid (MN 100070, MN 100073).
9/08/2022	TAS	1						An actual LOR1 was declared due to decreased generation availability. Actual conditions existed from 08:30 - 09:15. The actual LOR1 was cancelled when the effective period elapsed (MN 100804, MN 100805).
6/09/2022	TAS		1					A forecast LOR1 was declared with an effective period 07:30 - 08:00 (65 hour lead time) due to decreased generation availability (MN 101469). The forecast LOR1 condition was cancelled due to increased generation availability (MN 101473). A forecast LOR1 was redeclared with an effective period 08:00 - 08:30 (13 hour lead time)

Lack of Reserve conditions declared

Effective date ^A	Region	LOR1		LOR2		LOR3		Cause and resolution
		Actual	Forecast	Actual	Forecast	Actual	Forecast	
								due to increased forecast operational demand (MN 101483). The forecast LOR1 was cancelled due to increased generation availability (MN 101487).
Total		52	89	1	110	0	1	

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.

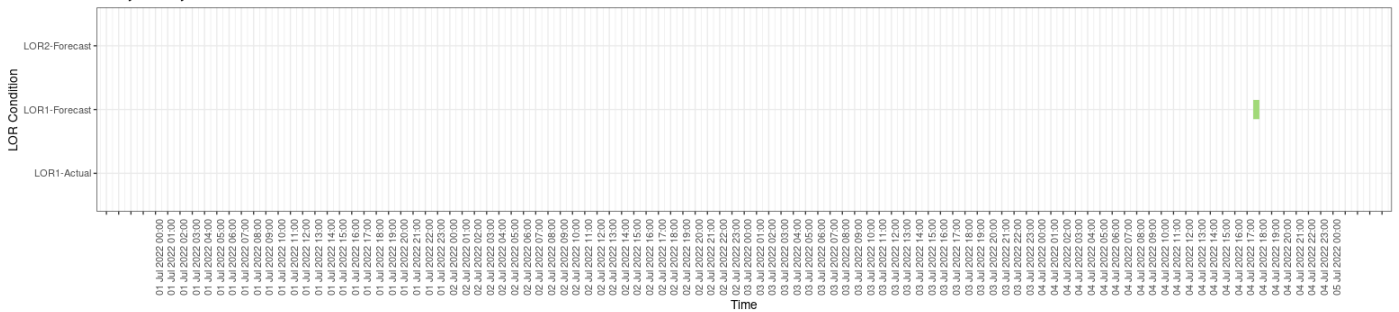
3.1 LOR declarations during the reporting period – Gantt chart

This section shows the LOR declarations during the reporting period 1 July - 30 September 2022 for each region using Gantt charts. Each Gantt chart covers a four day period. Periods with no LOR declarations were omitted and not graphed.

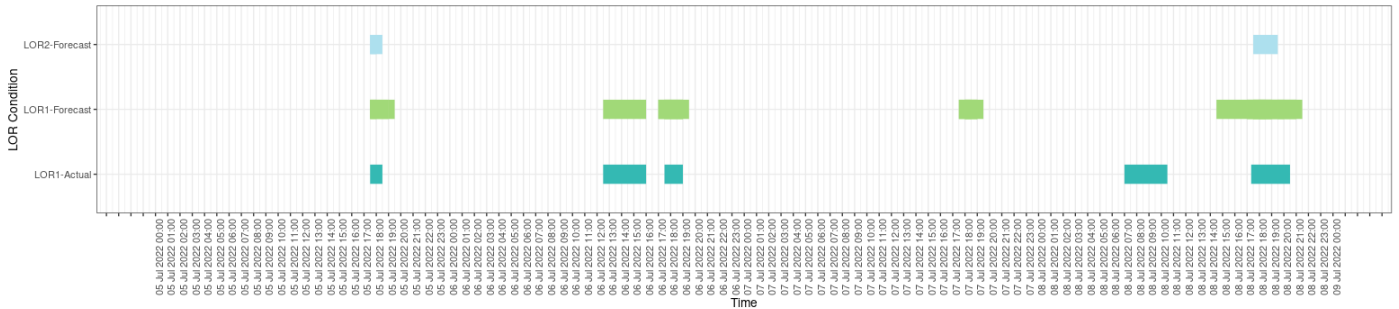
Forecast and actual LOR1, LOR2 and LOR3 conditions including updates are shaded according to the legend at the bottom of each page for the corresponding effective periods based on the market notices.

3.1.1 New South Wales

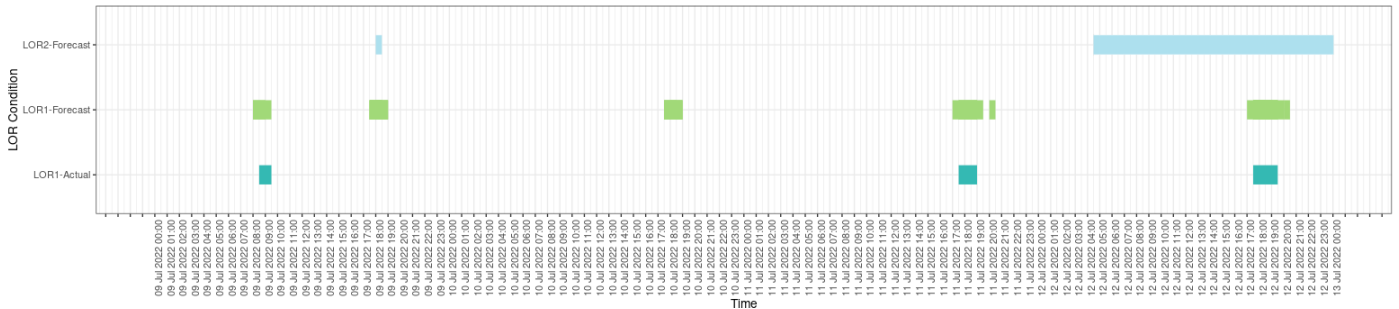
1 July - 4 July 2022

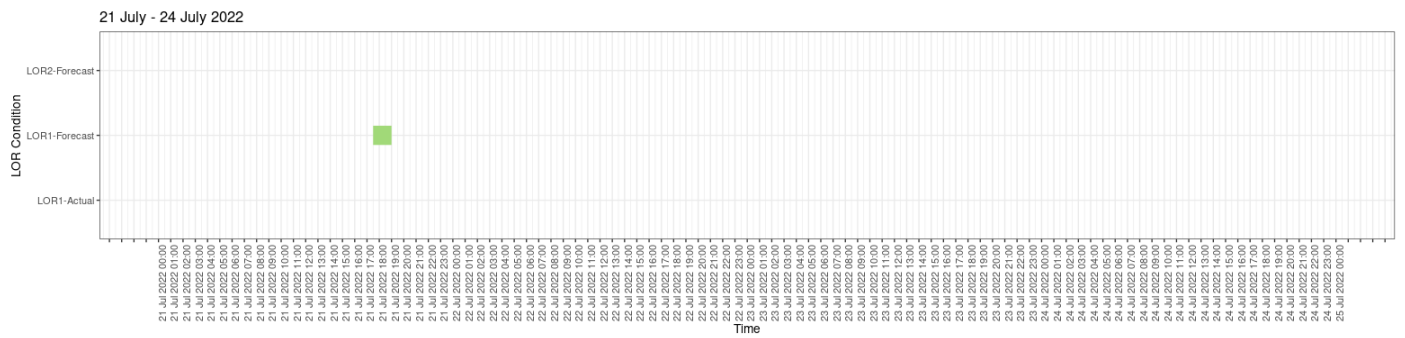
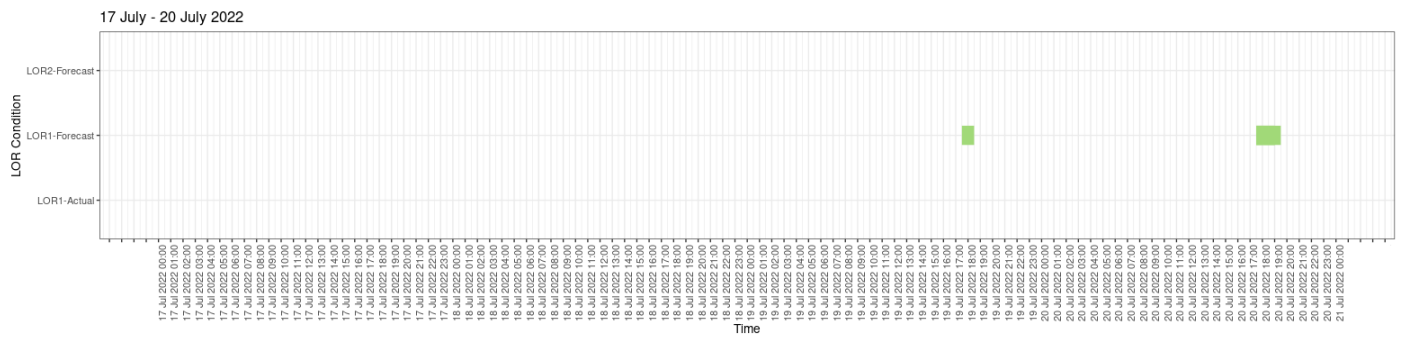
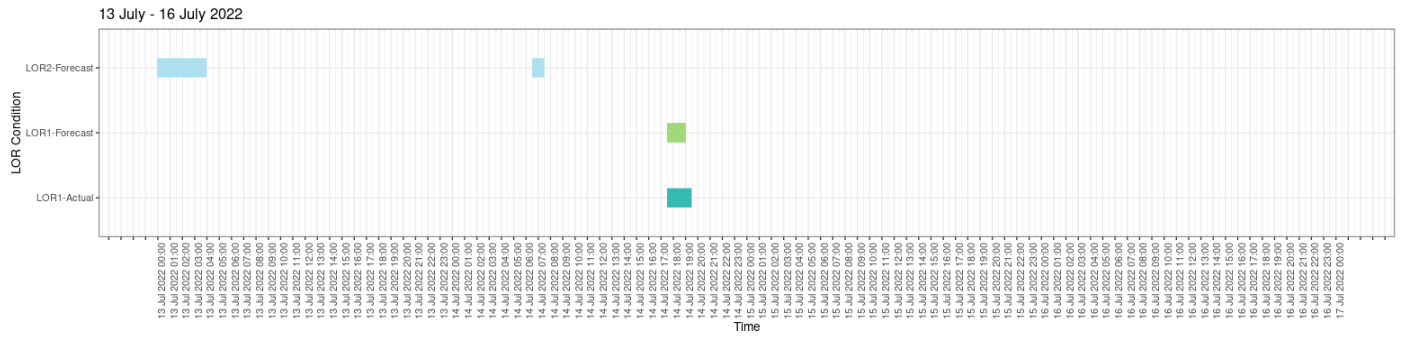


5 July - 8 July 2022

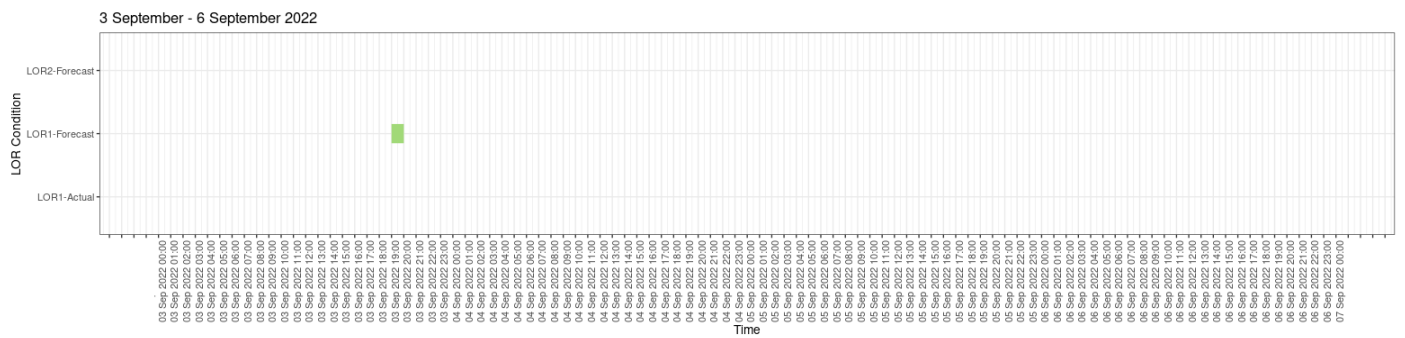


9 July - 12 July 2022





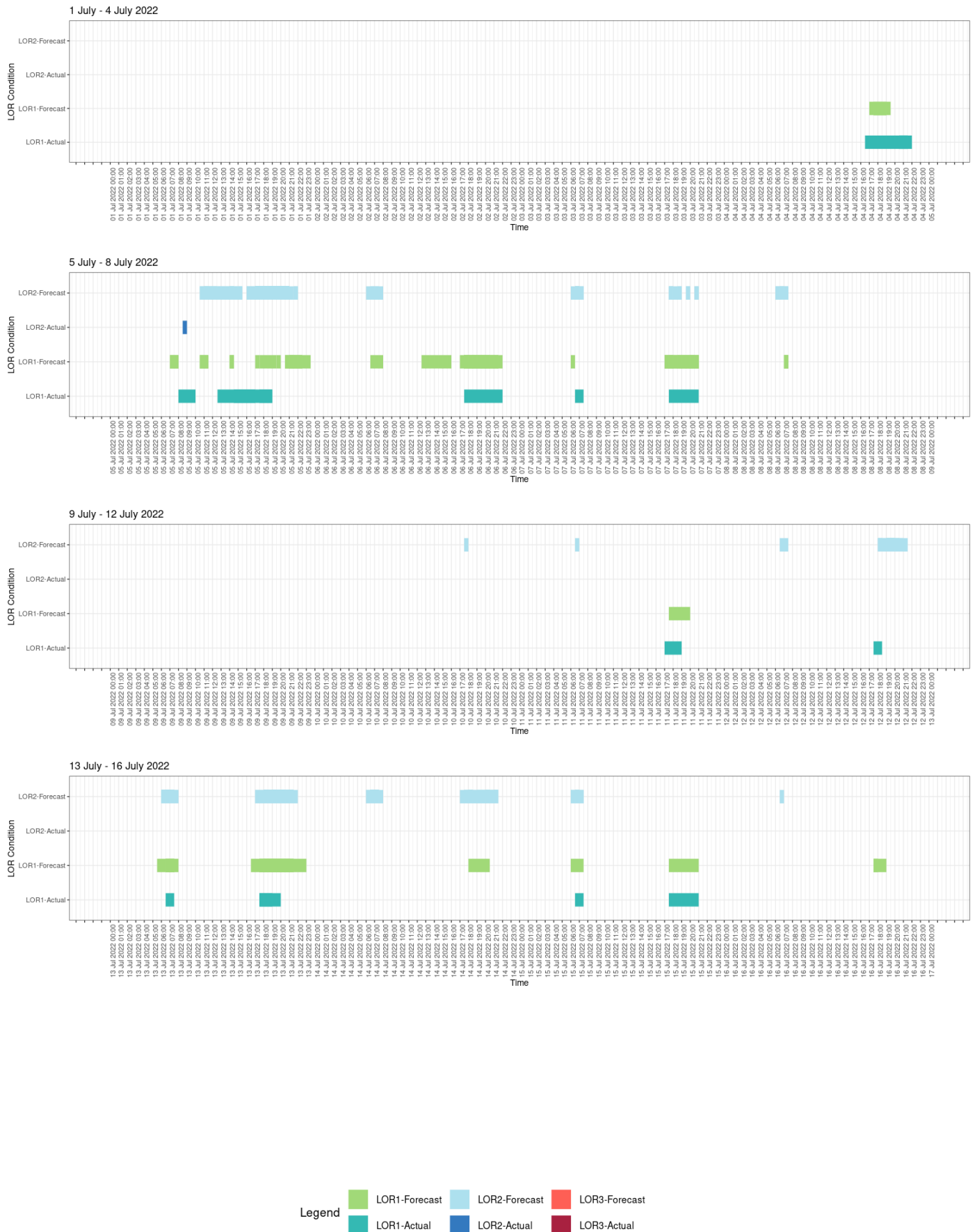
There were no LOR declarations in the period from 25 July to 2 September 2022.

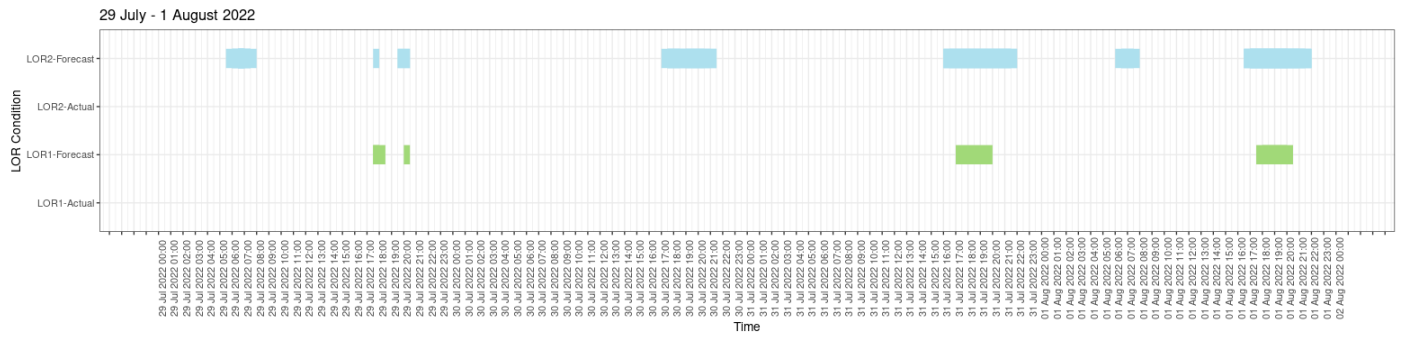
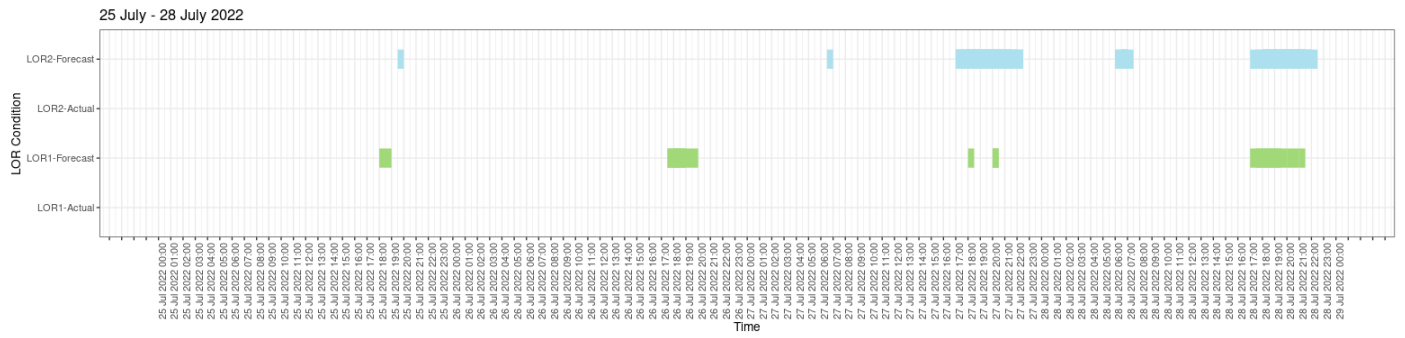
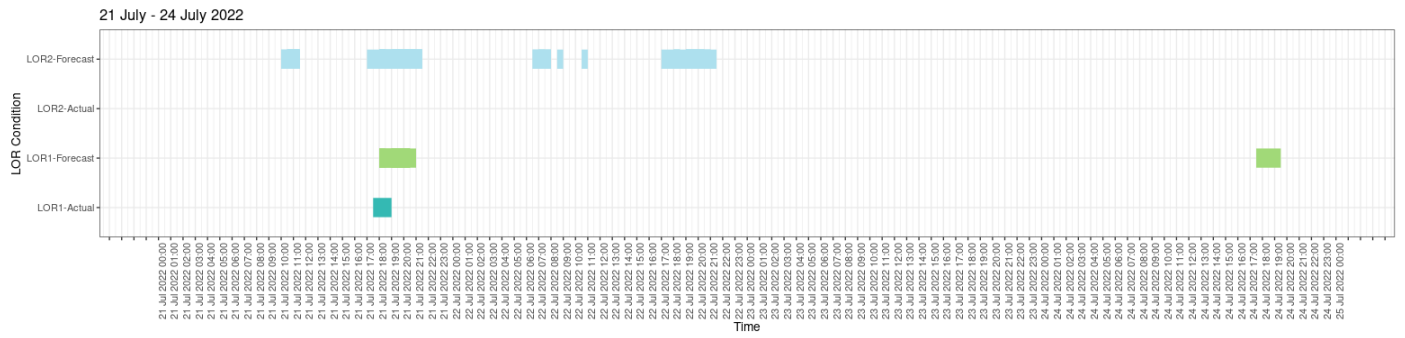
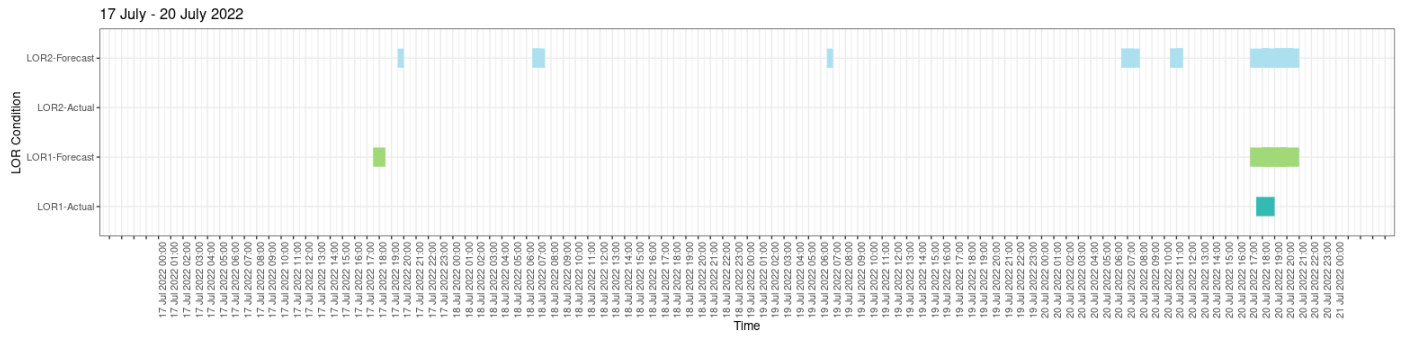


There were no LOR declarations in the period from 7 September to 30 September 2022.



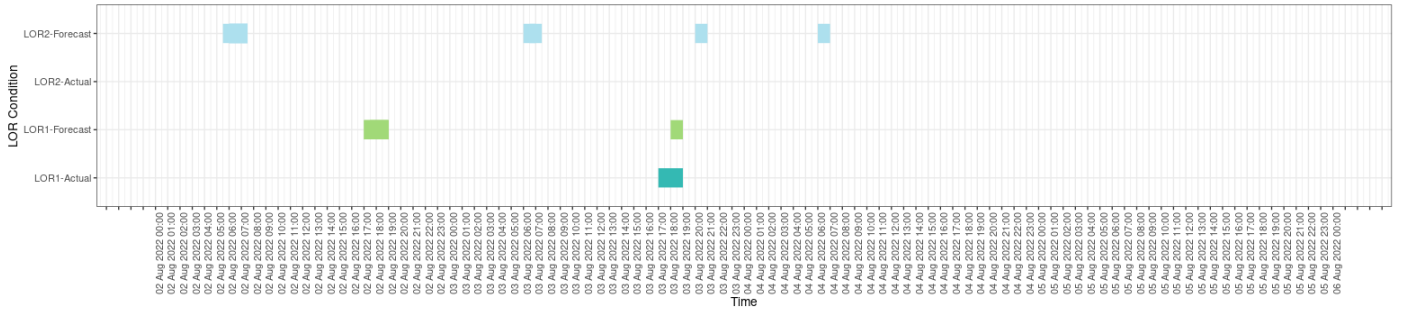
3.1.2 Queensland



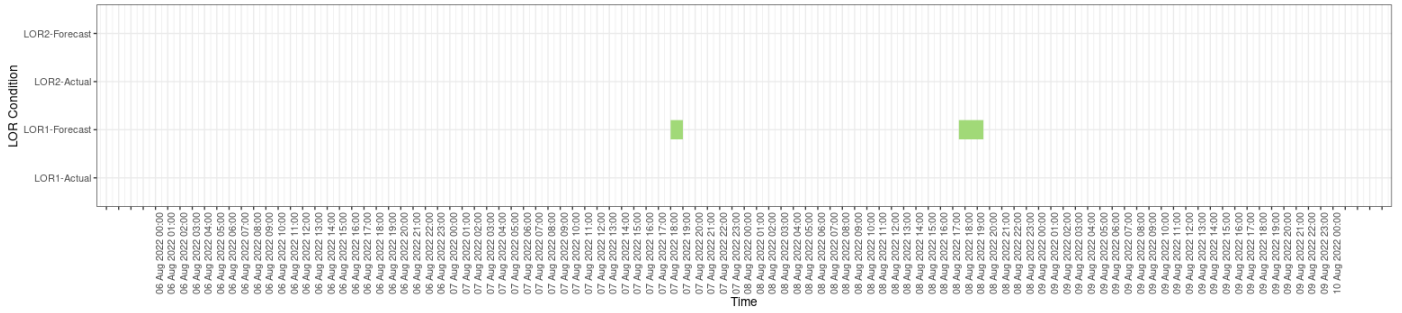


Lack of Reserve conditions declared

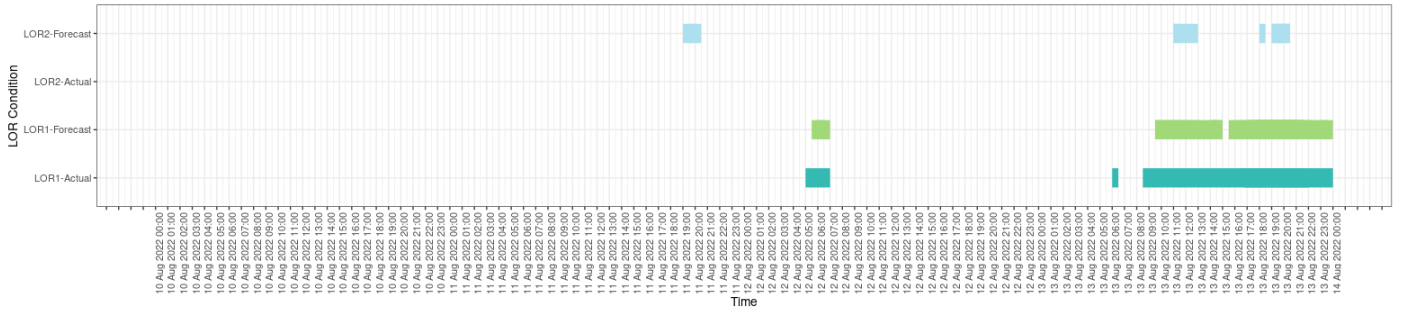
2 August - 5 August 2022



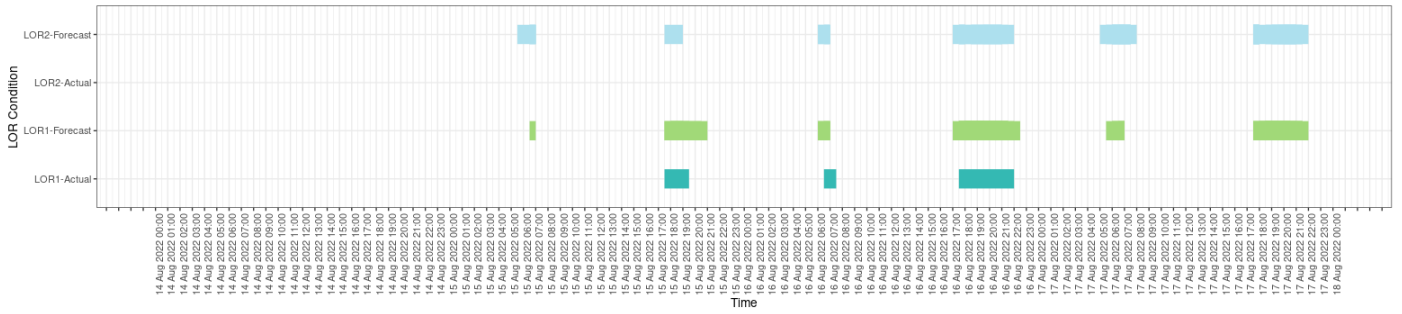
6 August - 9 August 2022



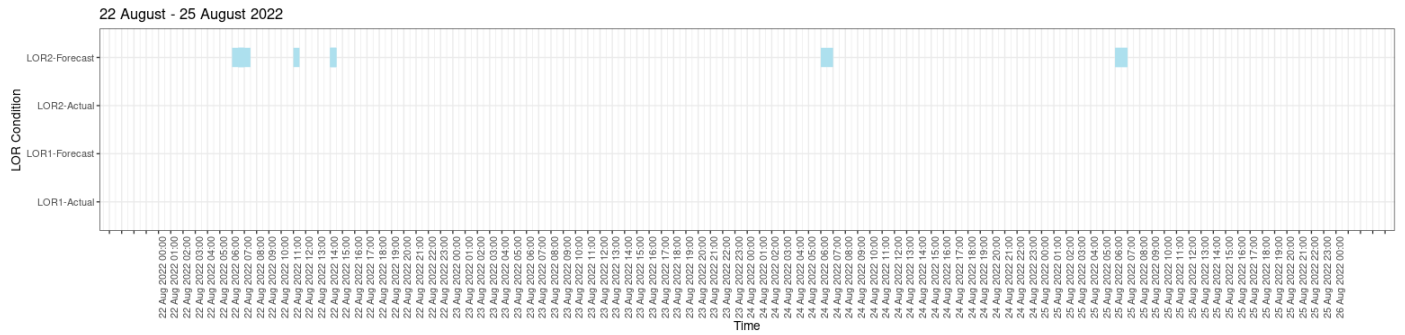
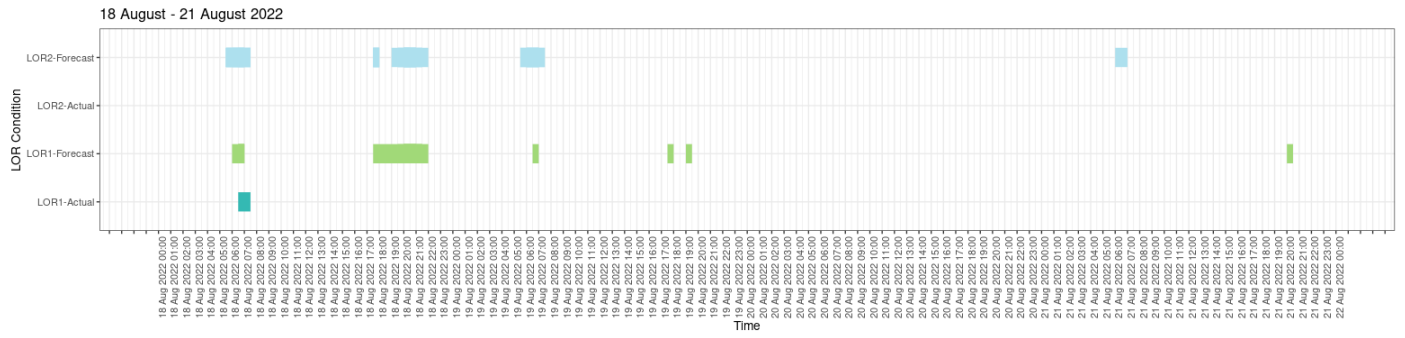
10 August - 13 August 2022



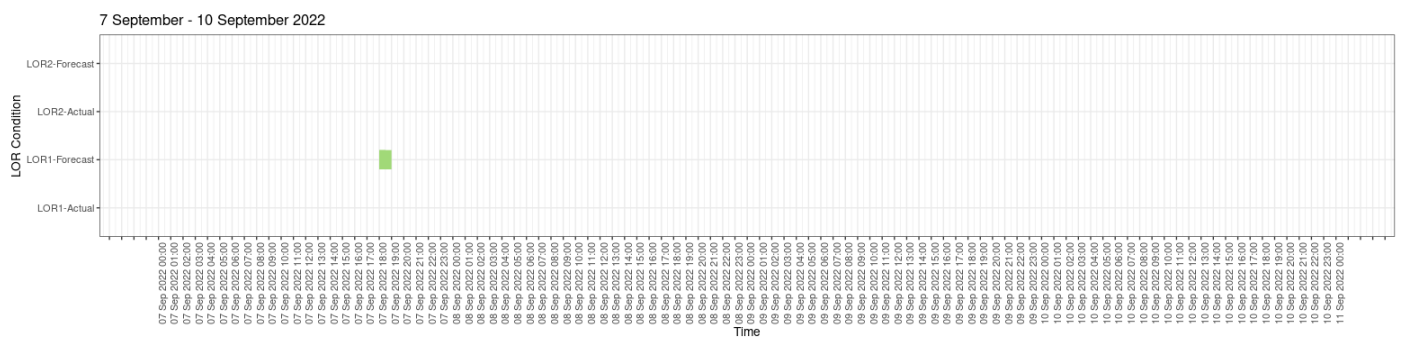
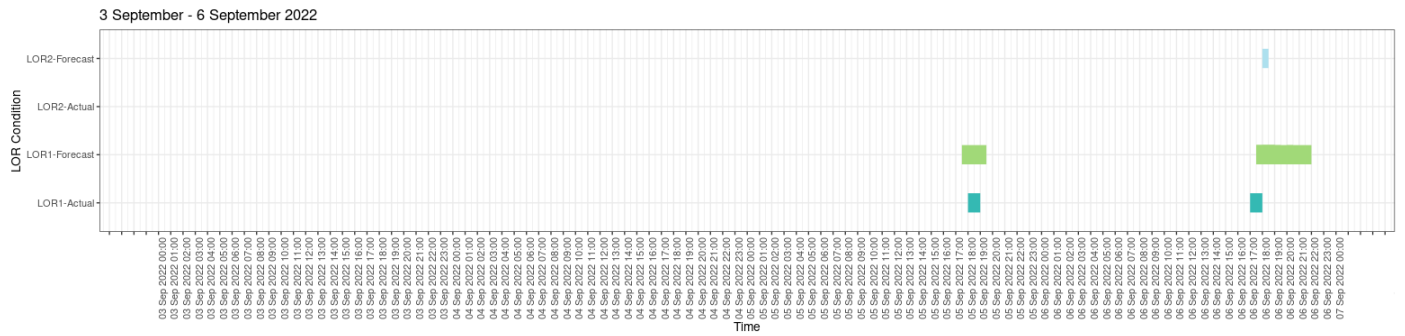
14 August - 17 August 2022

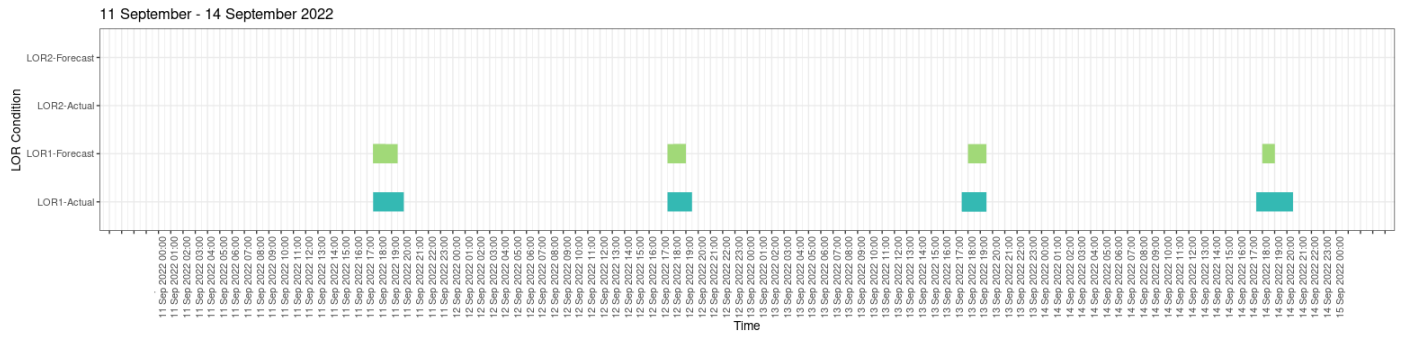


Lack of Reserve conditions declared

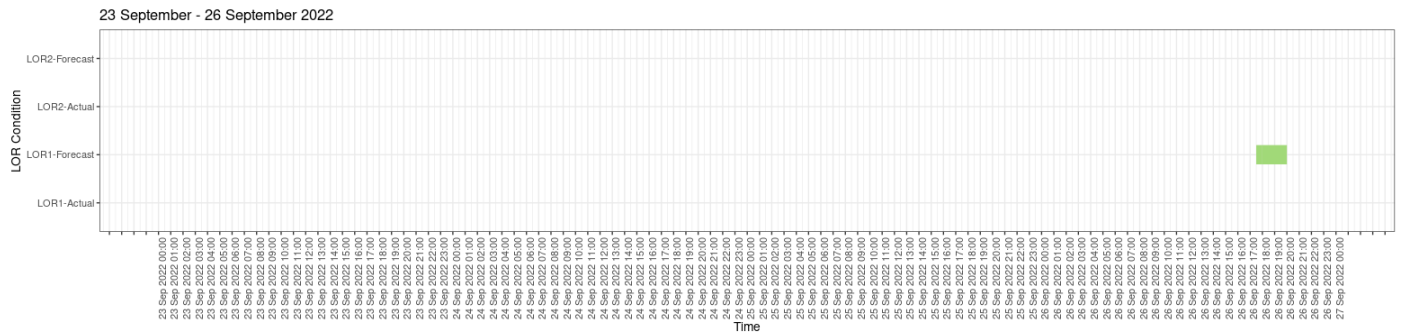


There were no LOR declarations in the period from 26 August to 2 September 2022.



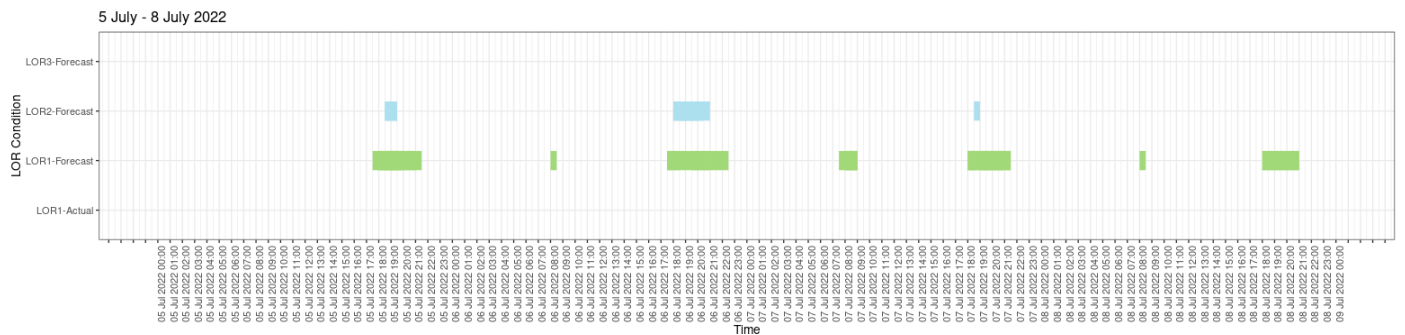
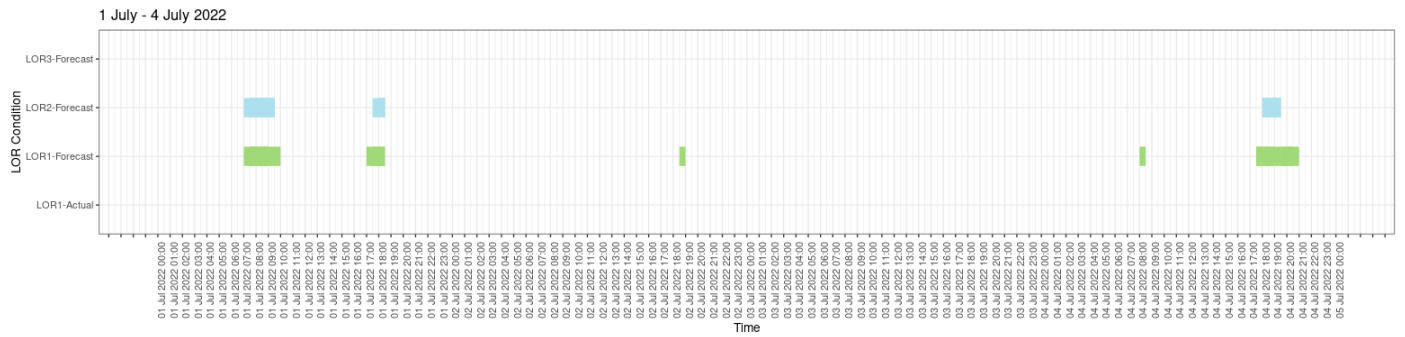


There were no LOR declarations in the period from 15 September to 22 September 2022.



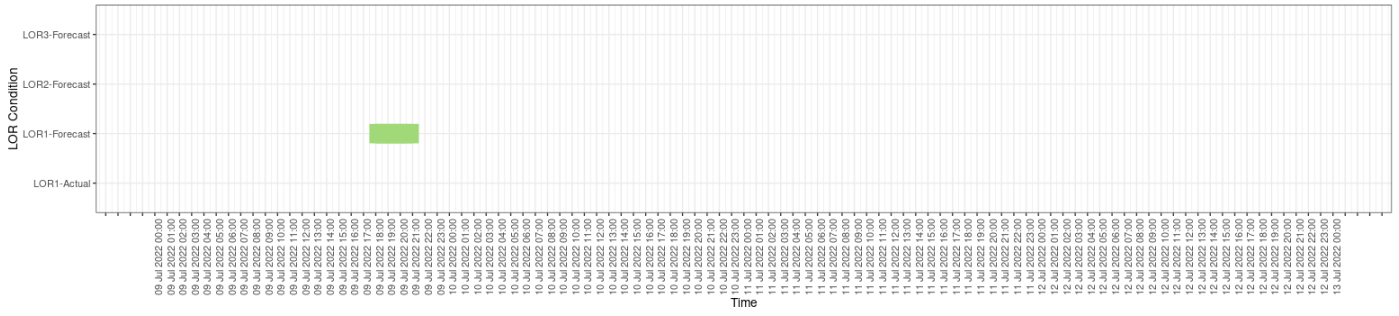
There were no LOR declarations in the period from 27 September to 30 September 2022.

3.1.3 South Australia

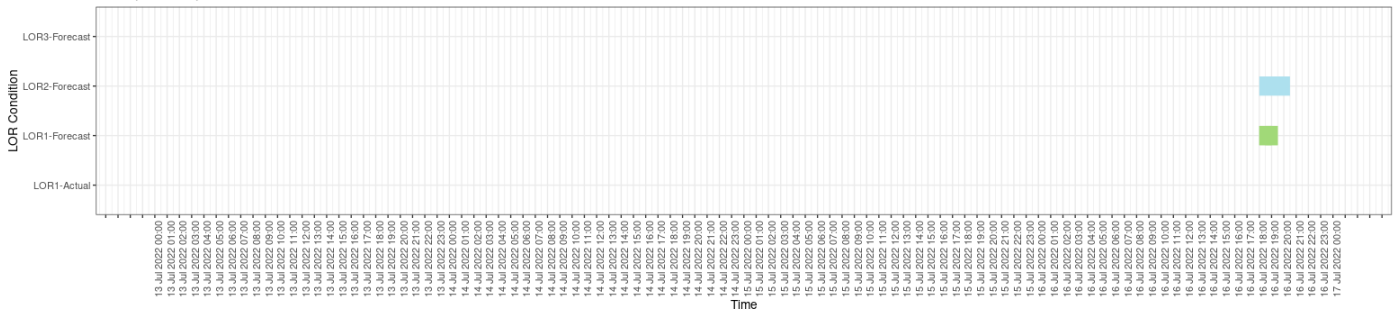




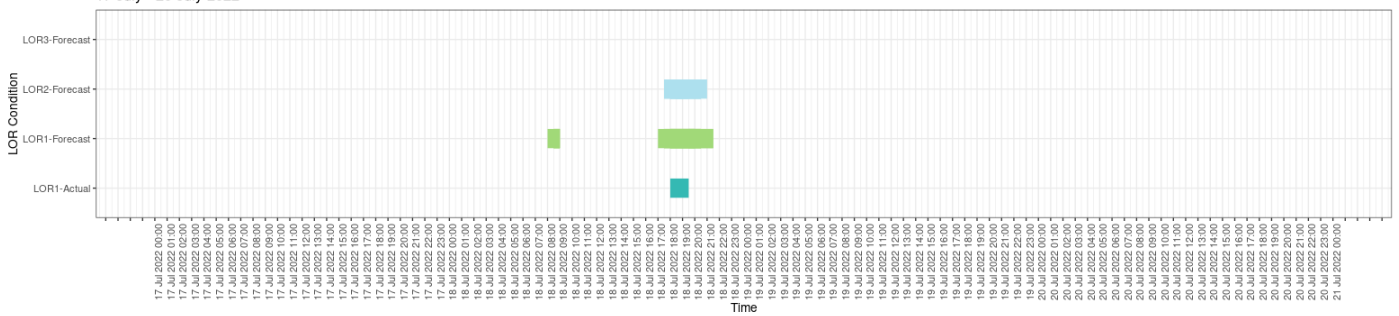
9 July - 12 July 2022



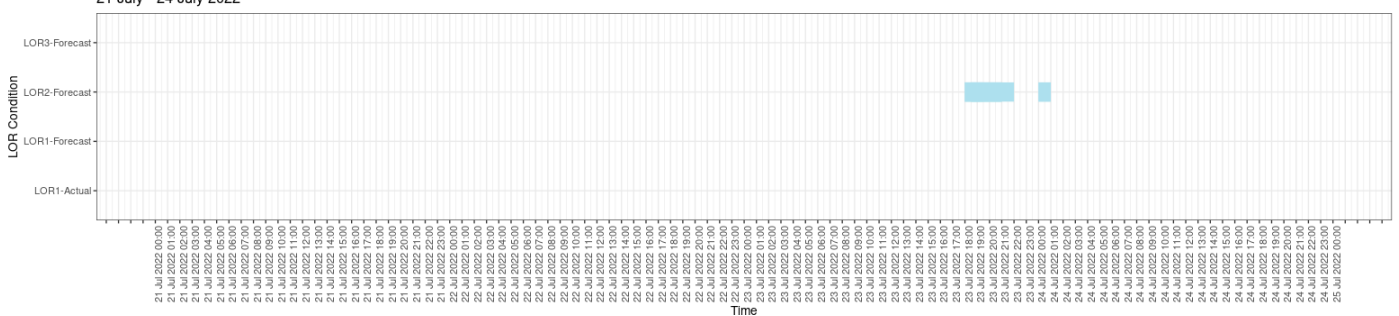
13 July - 16 July 2022



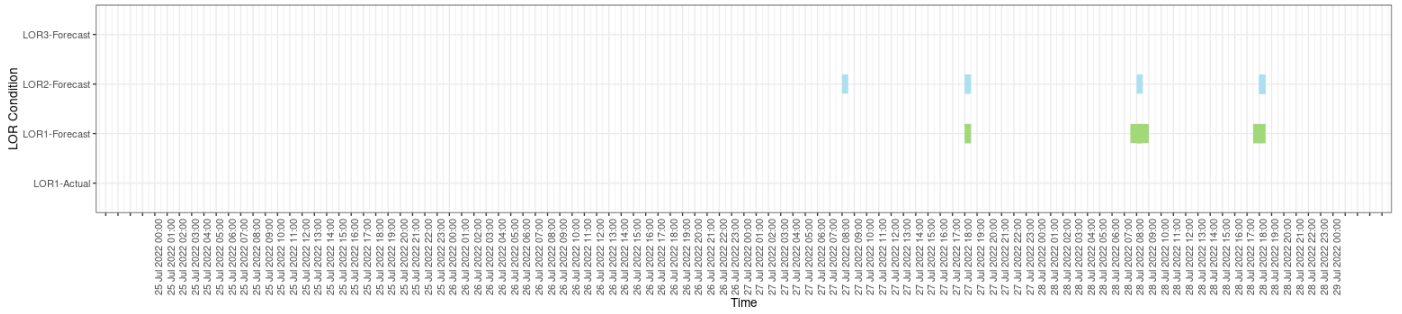
17 July - 20 July 2022



21 July - 24 July 2022

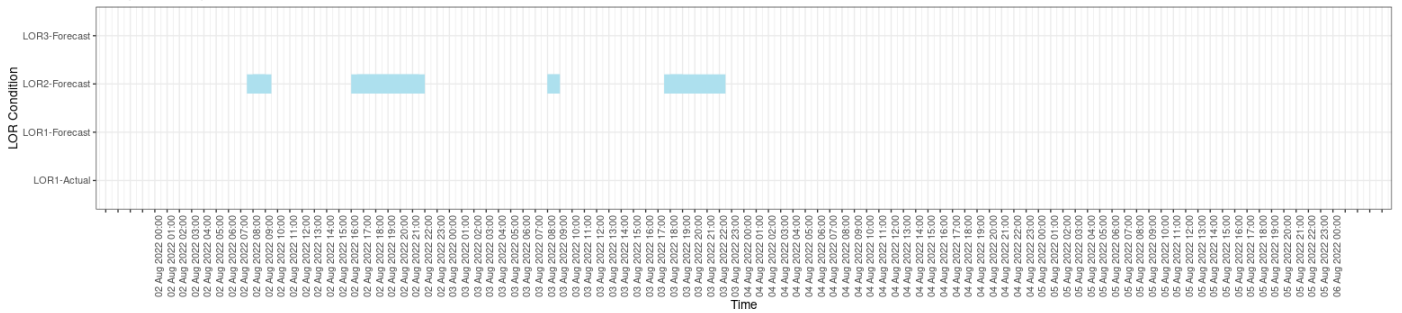


25 July - 28 July 2022

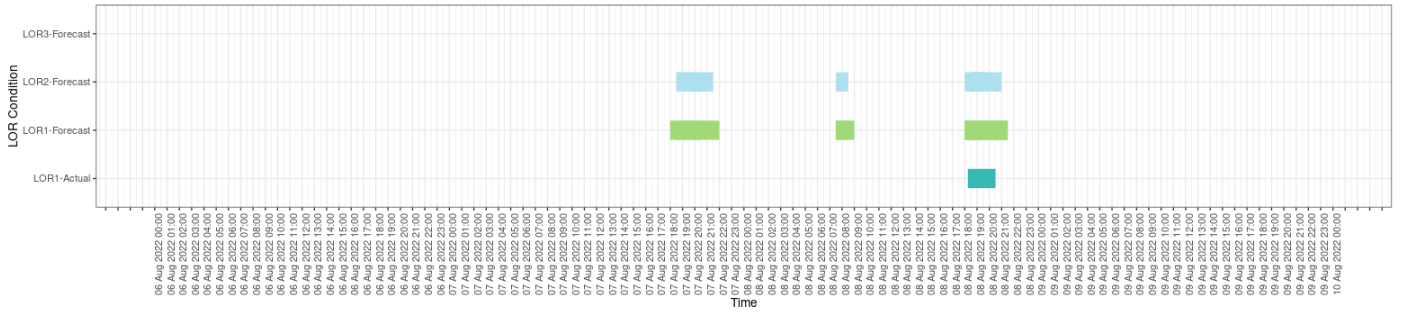


There were no LOR declarations in the period from 29 July to 1 August 2022.

2 August - 5 August 2022

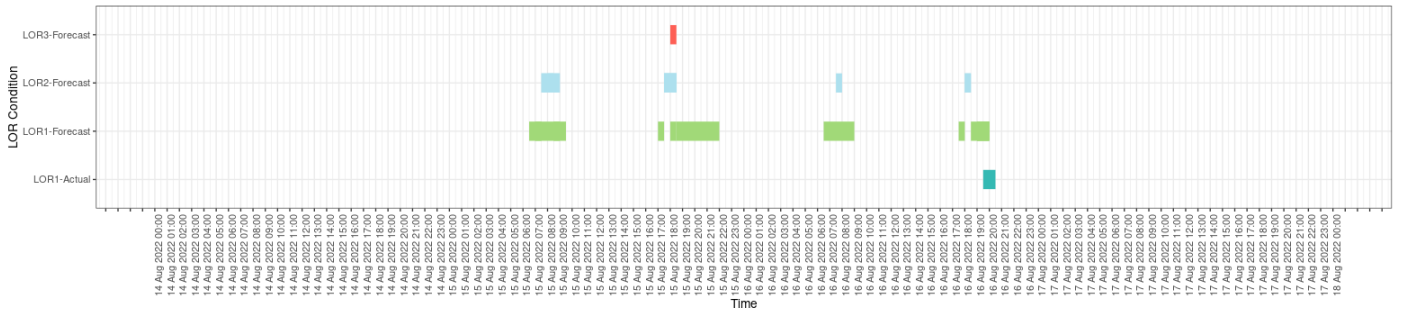


6 August - 9 August 2022

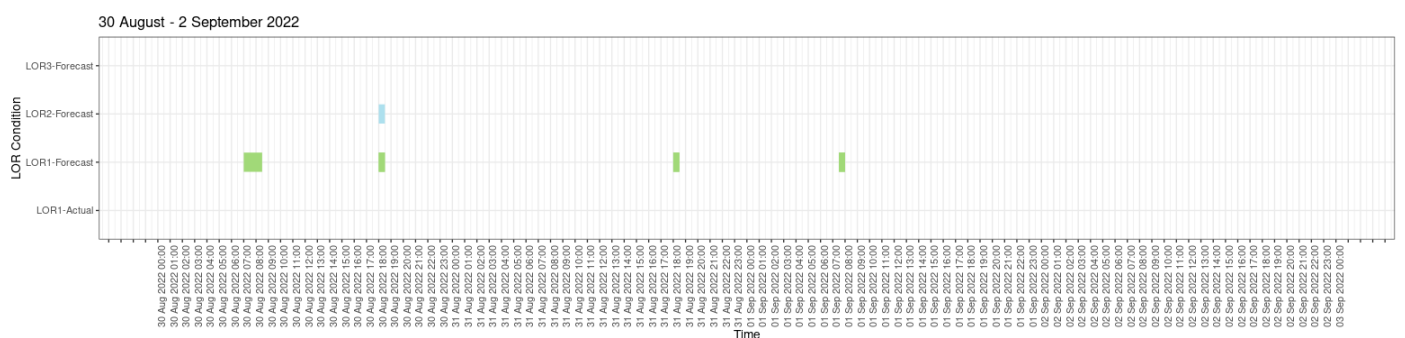
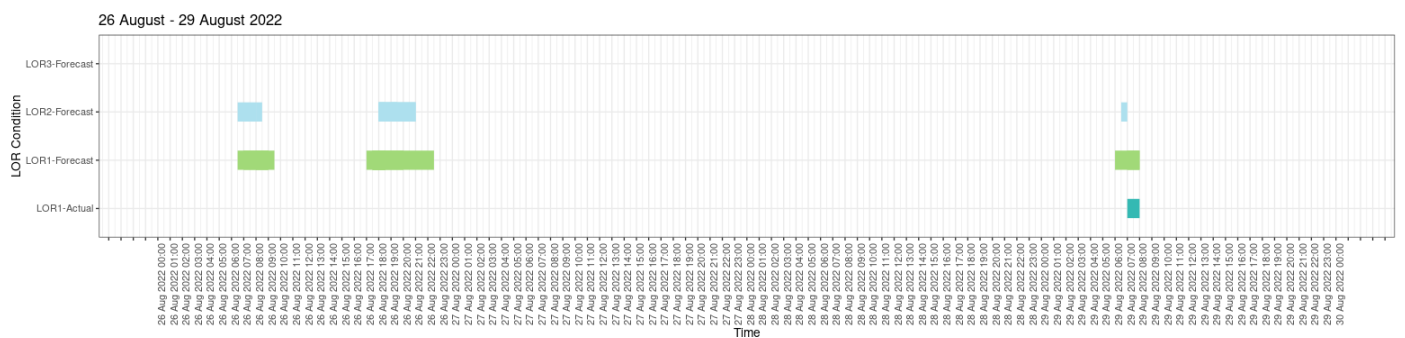
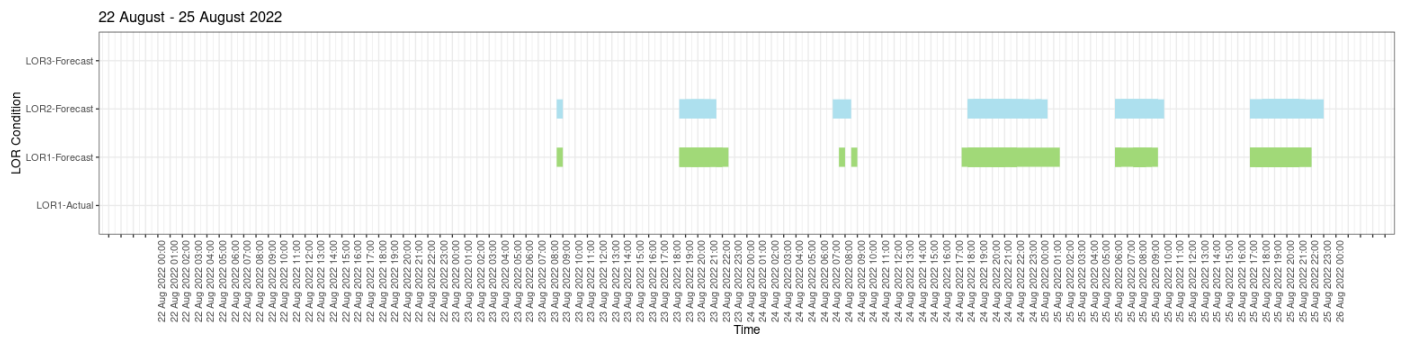
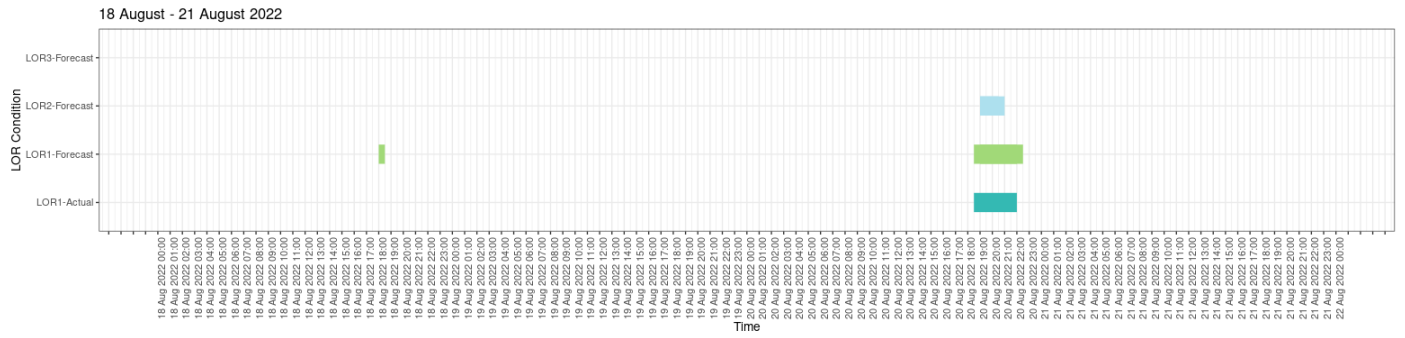


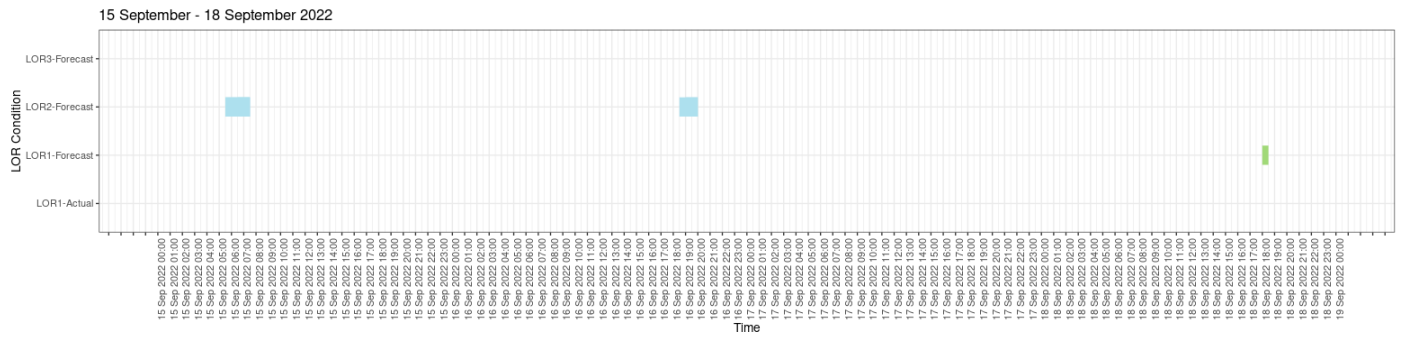
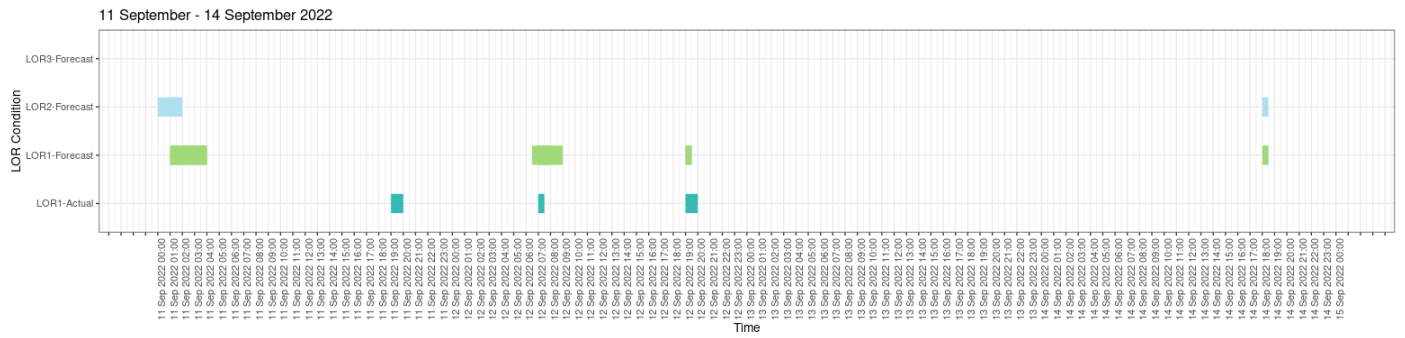
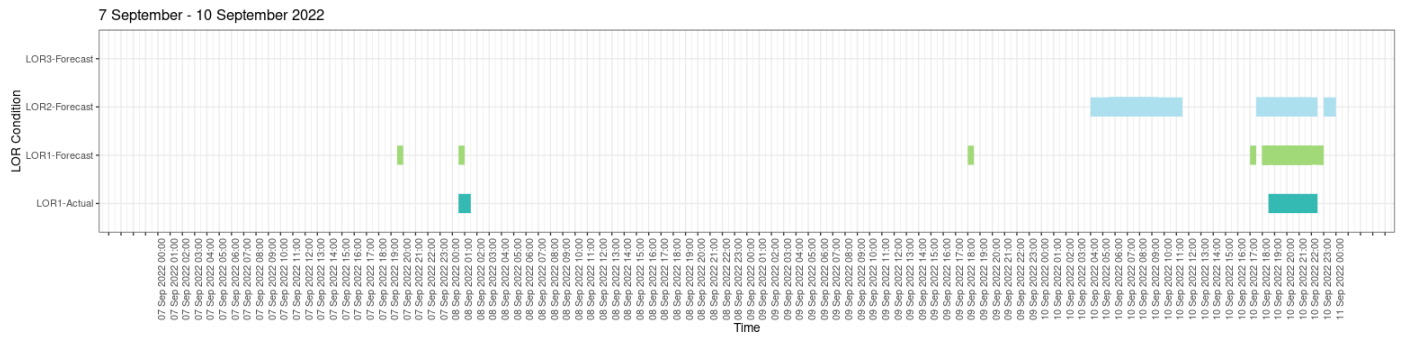
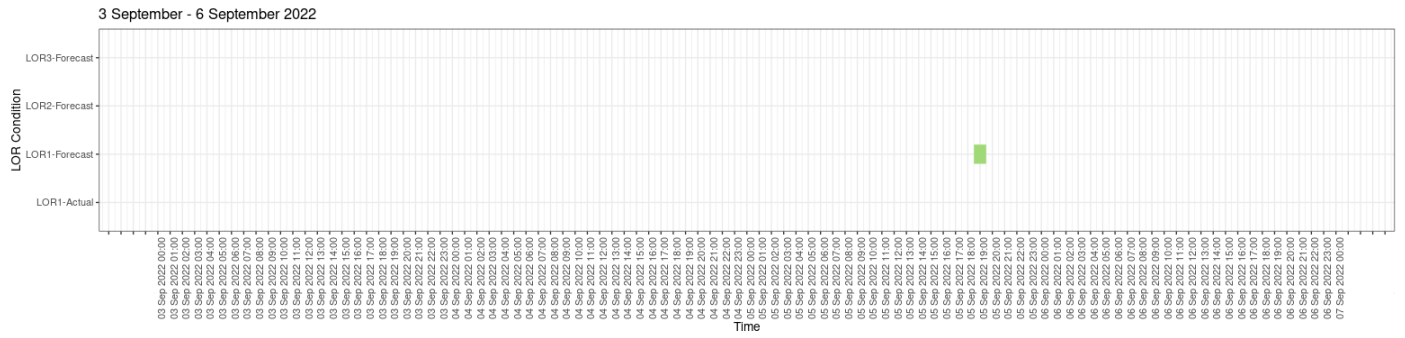
There were no LOR declarations in the period from 10 August to 13 August 2022.

14 August - 17 August 2022

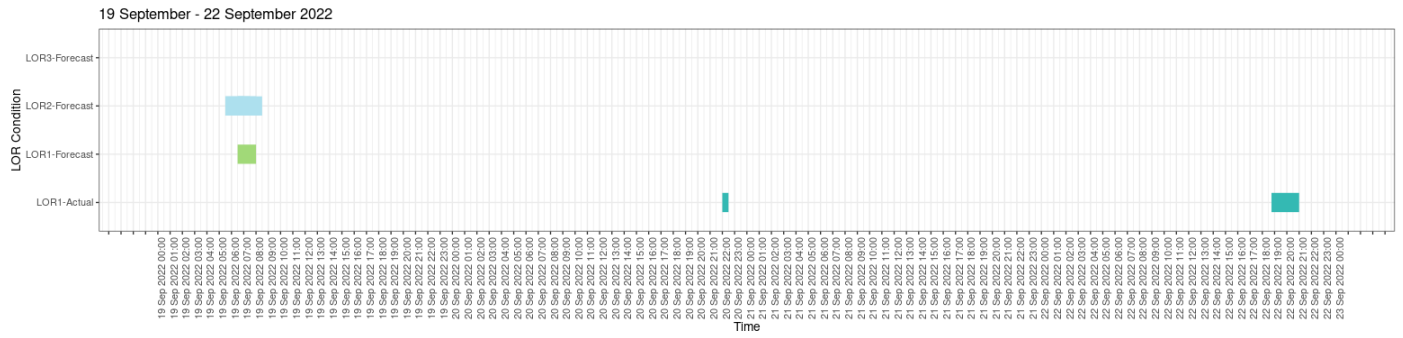


Lack of Reserve conditions declared

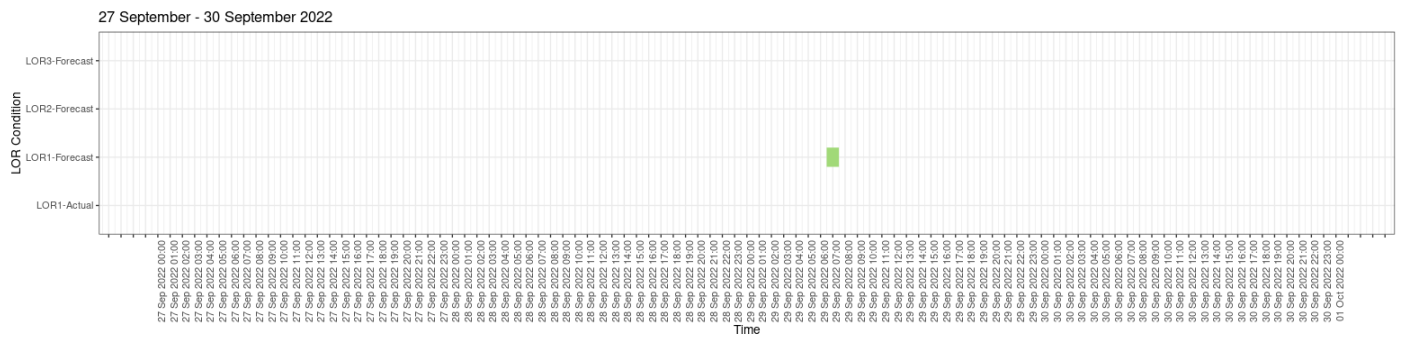




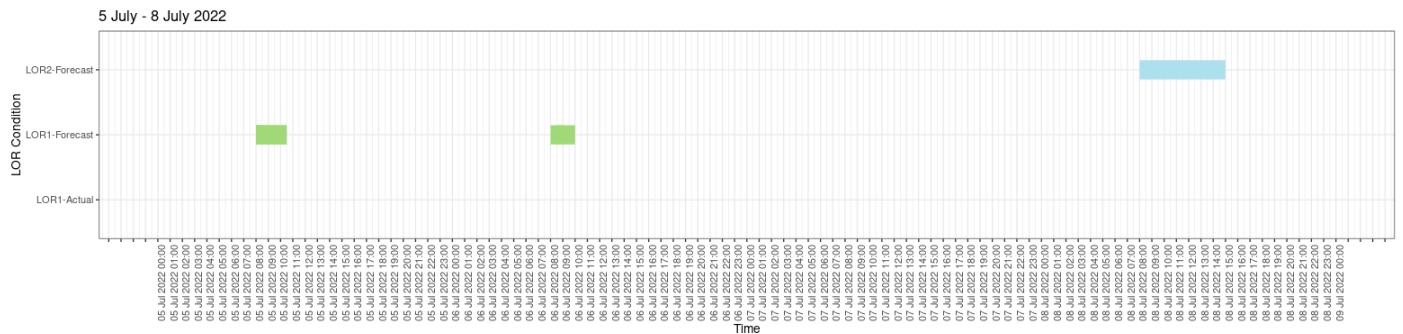
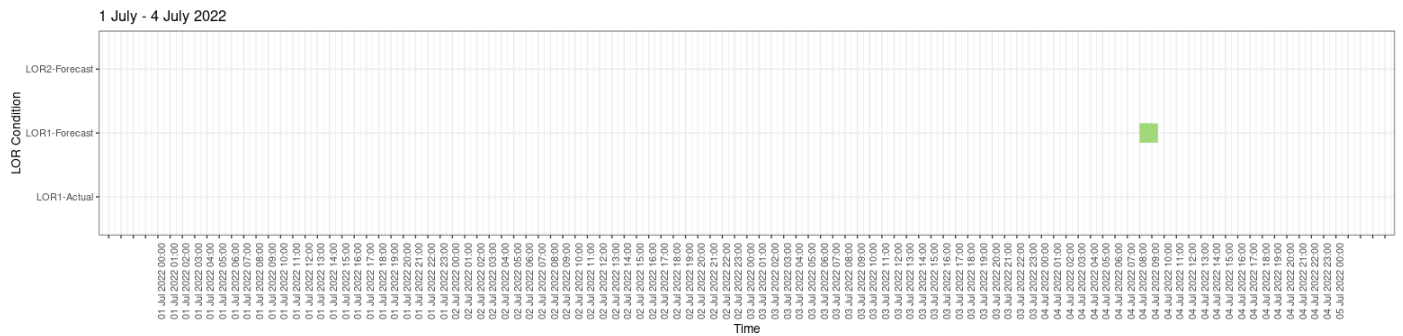
Lack of Reserve conditions declared



There were no LOR declarations in the period from 23 September to 26 September 2022.



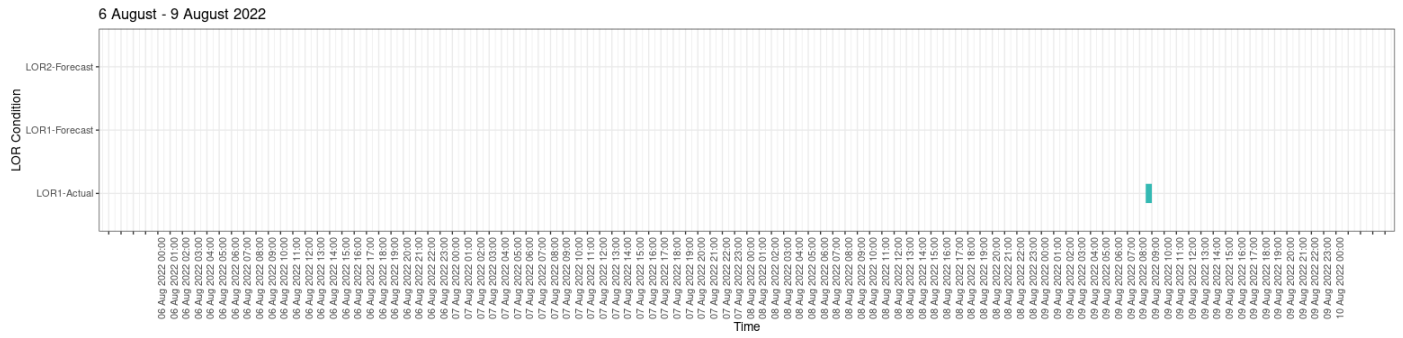
3.1.4 Tasmania



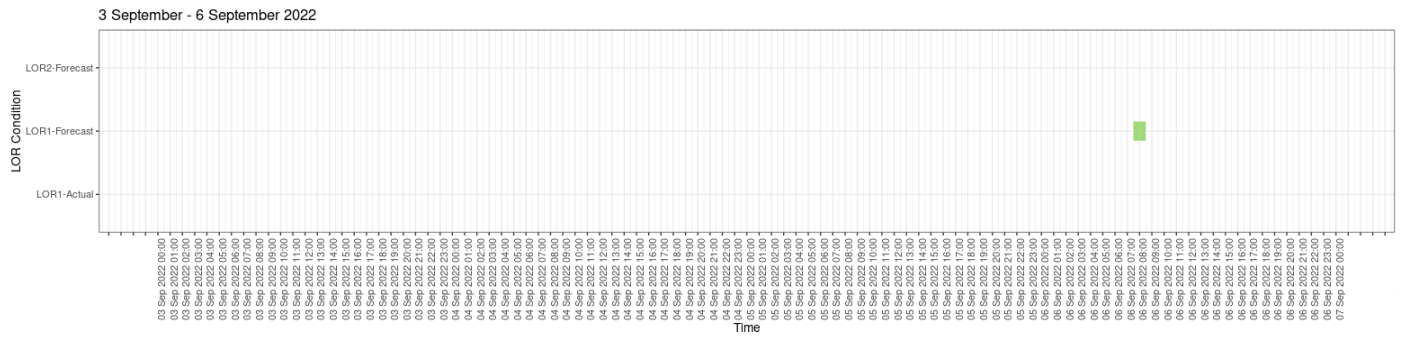
There were no LOR declarations in the period from 9 July to 5 August 2022.



Lack of Reserve conditions declared



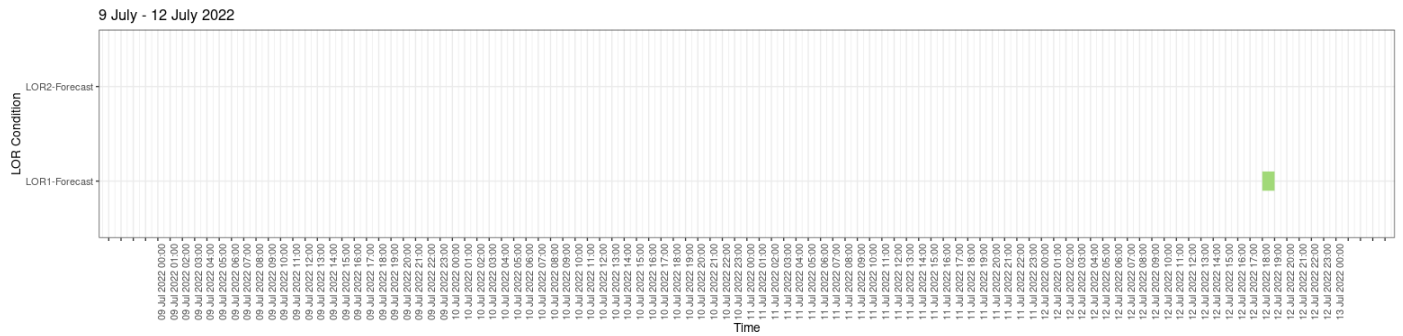
There were no LOR declarations in the period from 10 August to 2 September 2022.



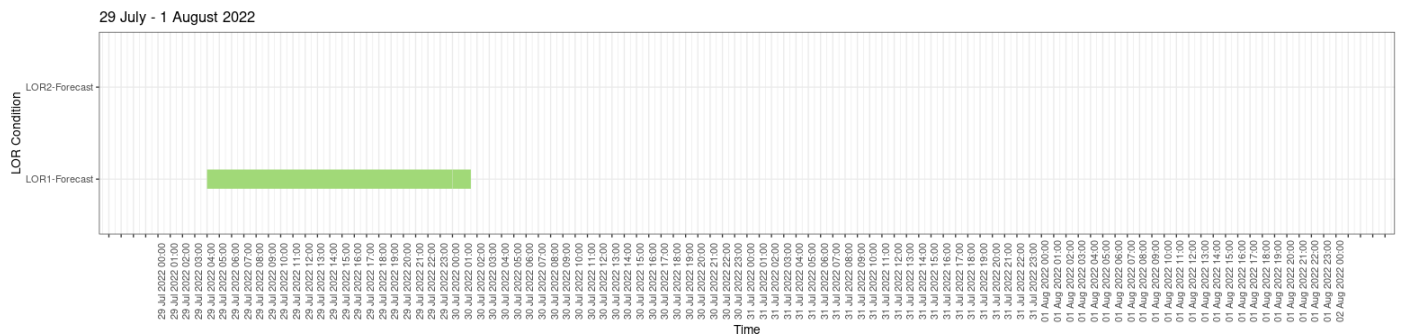
There were no LOR declarations in the period from 7 September to 30 September 2022.

3.1.5 Victoria

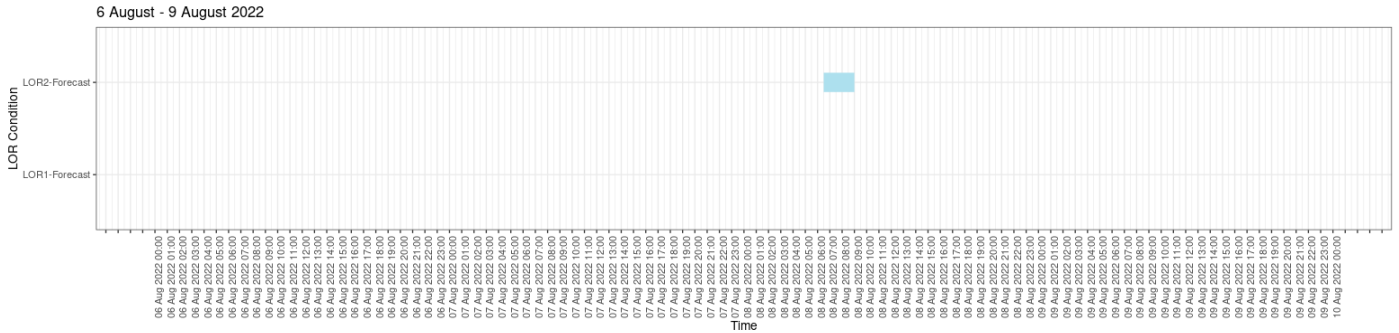
There were no LOR declarations in the period from 1 July to 8 July 2022.



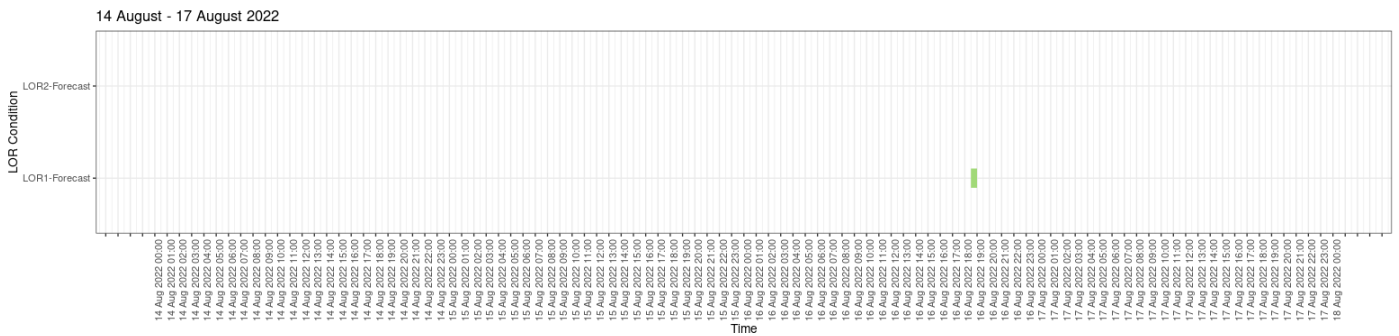
There were no LOR declarations in the period from 13 July to 28 July 2022.



There were no LOR declarations in the period from 2 August to 5 August 2022.



There were no LOR declarations in the period from 10 August to 13 August 2022.



There were no LOR declarations in the period from 18 July to 30 September 2022.



4 Review of performance

4.1 Forecast Uncertainty Measure values

As in Section 2.1, this section will compare the 10th, 50th (median) and 90th percentile FUM values for this reporting period to those for each quarter from Quarter 3 2021 to Quarter 3 2022 (Figure 2 to Figure 6). FUM values decreasing is indicative of the distribution tightening with decreasing forecast uncertainty.

The most material changes in FUM values between Quarter 2 2022 and Quarter 3 2022 are summarised in this section. Values from 4/9/2022 to 5/9/2022 have been removed from the visualisations due to an outage impacting data delivered to the BBN and therefore impacted the FUM. For forecast horizons not mentioned in this section, the changes from Quarter 2 2022 were minor:

- New South Wales – 10th percentile FUM values decreased for the 2 and 60 hours ahead forecast horizons and increased for the 12 hours ahead forecast horizon. The median FUM values decreased for the 2 hours ahead forecast horizon, as did the 90th percentile for the 12 hours ahead forecast horizon. 90th percentile FUM values increased for the 2 and 6 hours ahead forecast horizons.
- Queensland – 10th percentile FUM values decreased for the 60 hours ahead forecast horizon. The median FUM values increased for the 48 hours ahead forecast horizon. The 90th percentile FUM values increased for the 60 hours ahead forecast horizon.
- South Australia – 10th percentile and median FUM values decreased for the 60 hours ahead forecast horizon.
- Tasmania – 90th percentile FUM values decreased for the 60 hours ahead forecast horizon.
- Victoria – 90th percentile FUM values decreased for the 24 hours ahead forecast horizon.

Figure 2 New South Wales region: FUM values for the reporting period, and compared to previous four quarters

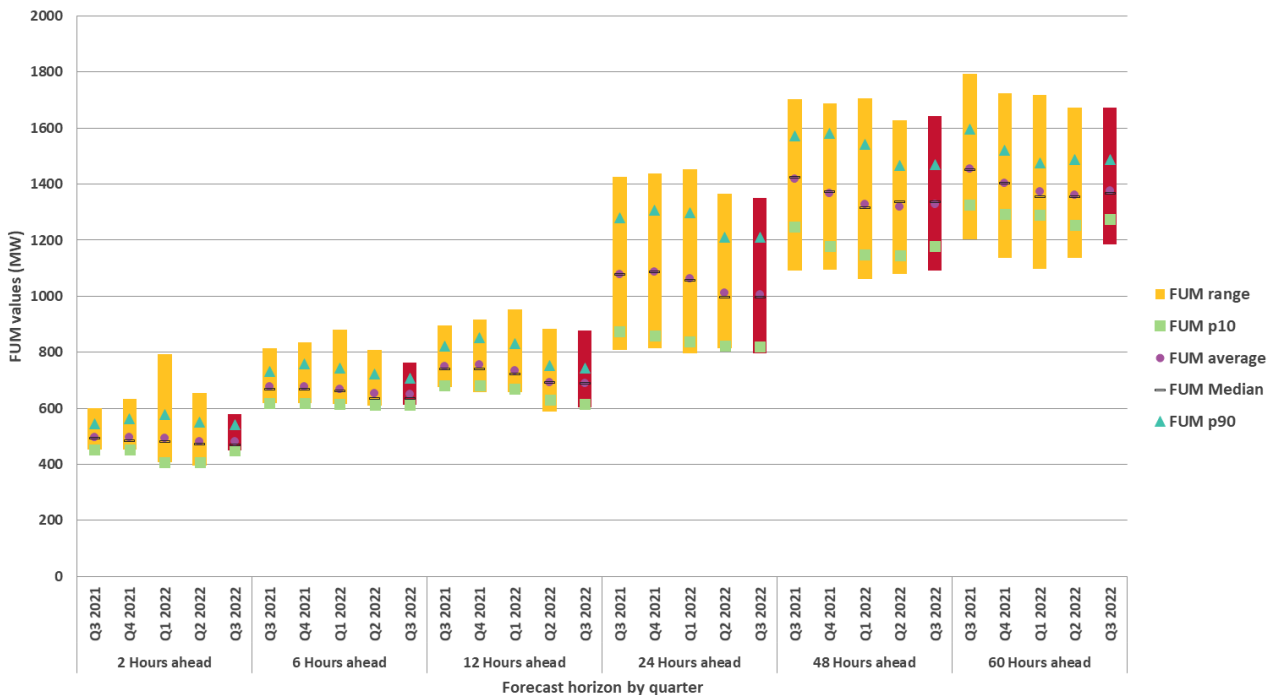




Figure 3 Queensland region: FUM values for the reporting period, and compared to previous four quarters

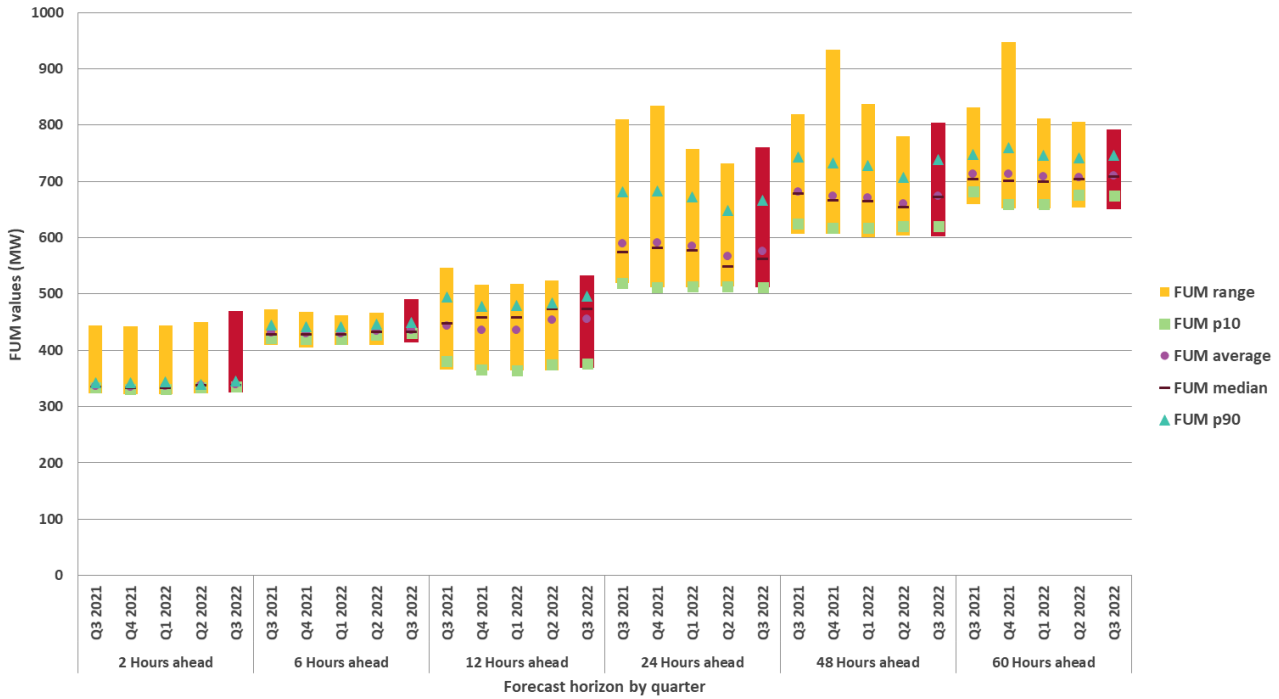


Figure 4 South Australia region: FUM values for the reporting period, and compared to previous four quarters

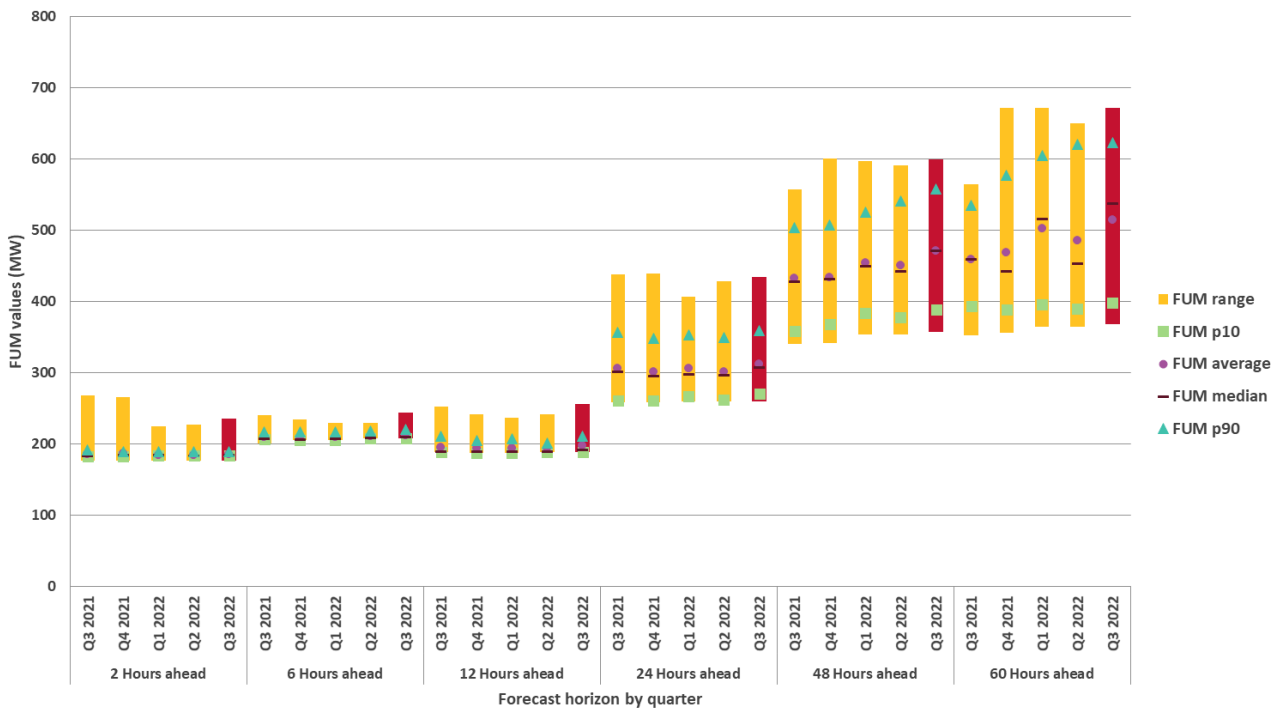




Figure 5 Tasmania region: FUM values for the reporting period, and compared to previous four quarters

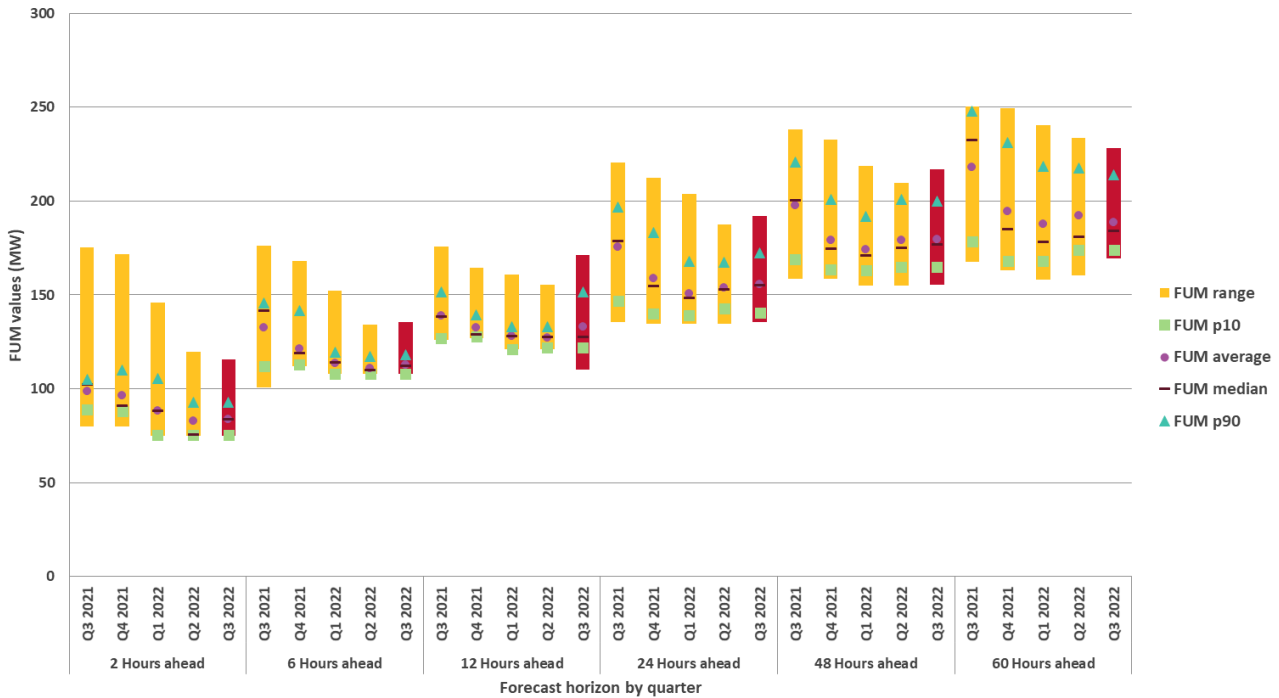
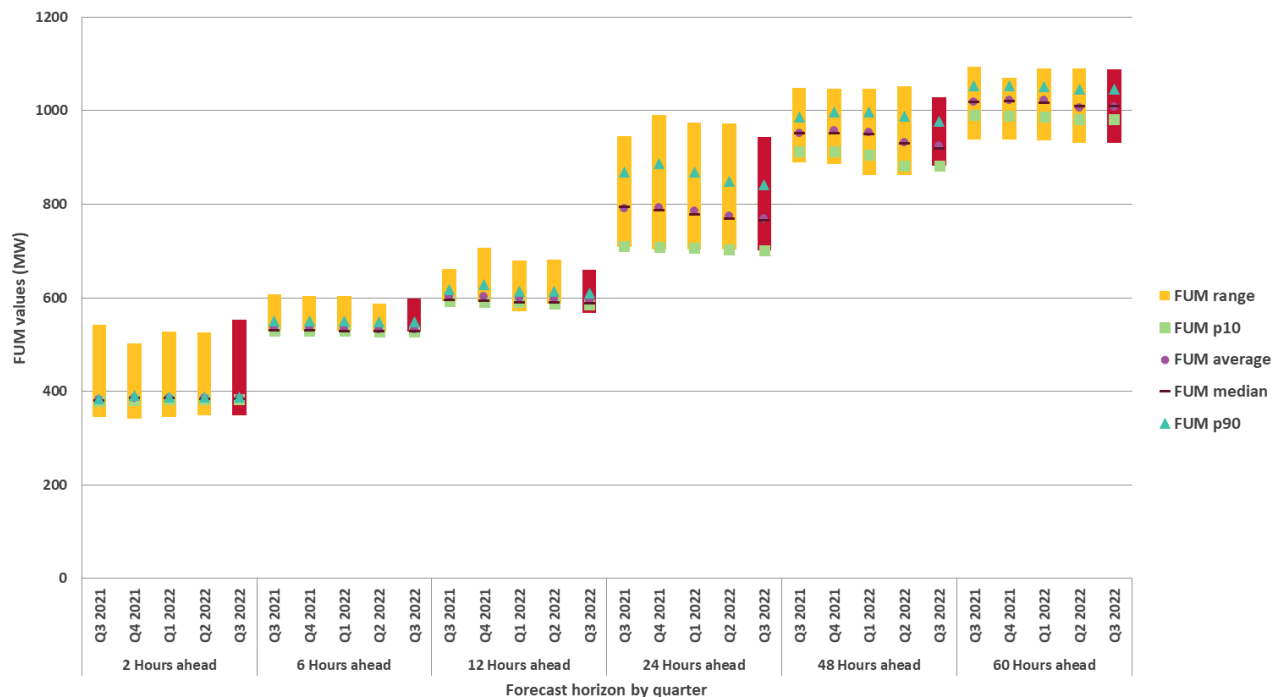


Figure 6 Victoria region: FUM values for the reporting period, and compared to previous four quarters



4.2 Forecast and actual LOR declarations

A summary of the count and causes of declared forecast and actual LOR conditions in the remainder of Quarter 3 2022 can be found in Table 2 in Section 3 of this report.

Of the 253 LOR declarations in the reporting period, 200 were for forecast LOR conditions:

- 89 forecast LOR1 conditions were declared.
- 110 forecast LOR2 conditions were declared.
- One forecast LOR3 conditions were declared.
- None of the forecast LOR1 conditions were set by the FUM.
- 91 forecast LOR2 conditions were set by the FUM.
- A total of 52 actual LOR1 conditions were declared. Of these, 45 were observed as forecast LOR1 prior to being declared as an actual, therefore not counted as a forecast declaration based on the declaration count principles outlined in Section 3. Seven were declared as actual LOR1 conditions without prior forecast.
- There was one actual LOR2 condition declared, which was observed as forecast LOR2 prior to being declared as an actual.
- There was one forecast LOR3 condition declared which did not eventuate into an actual.

Table 3 Summary of LOR conditions during reporting period, 1 July to 30 September 2022

Region	LOR1		LOR2		LOR3	
	Actual	Forecast	Actual	Forecast	Actual	Forecast
NSW	9	9	0	7	0	0
QLD	30	26	1	59	0	0
SA	12	44	0	43	0	1
TAS	1	4	0	0	0	0
VIC	0	6	0	1	0	0
Total	52	89	1	110	0	1

Quarter 2 2022 was impacted by unprecedented market and operational challenges and an extended market suspension in all NEM regions⁶, resulting in an exceptionally high 406 LOR declarations (351 forecast LOR events and 55 actual LOR events), By contrast, 69 LOR declarations were made in Quarter 3 2021 (49 forecast LOR events and 20 actual events).

During the reporting period, there were 91 LOR declarations set by the FUM, so the percentage of LOR conditions where the FUM set the reserve requirement was 36%. In Quarter 2 2022 the percentage was 22% (non-market suspension period), while in Quarter 3 2021 it was 20%.

Reliability and Emergency Reserve Trader (RERT) activations

During the reporting period, RERT services were activated on 5 July (Queensland)⁷.

⁶ AEMO's market event and reviewable operating incident report can be found at https://www.aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/market_event_reports/2022/nem-market-suspension-and-operational-challenges-in-june-2022.pdf.

⁷ RERT reporting can be found at <https://aemo.com.au/energy-systems/electricity/emergency-management/reliability-and-emergency-reserve-trader-rert/rert-reporting>.

Table 4 LORs declared during the reporting period by trigger (FUM or LCR)

Effective period	LOR1	LOR2	LOR3
New South Wales (NSW)			
04/07/2022	Forecast		
05/07/2022	Forecast then Actual	Forecast	
06/07/2022	Forecast then Actual		
	Forecast then Actual		
07/07/2022	Forecast		
08/07/2022	Actual	Forecast	
	Forecast then Actual		
09/07/2022	Forecast then Actual	Forecast	
	Forecast		
10/07/2022	Forecast		
11/07/2022	Forecast then Actual		
12/07/2022	Forecast then Actual	Forecast	
		Forecast	
		Forecast	
		Forecast	
14/07/2022	Forecast then Actual		
19/07/2022	Forecast		
20/07/2022	Forecast		
21/07/2022	Forecast		
03/09/2022	Forecast		
Queensland (QLD)			
04/07/2022	Forecast then Actual		
05/07/2022	Forecast then Actual	Forecast then Actual	
	Actual	Forecast	
	Forecast then Actual	Forecast	
06/07/2022	Forecast	Forecast	
	Forecast		
	Forecast then Actual		
07/07/2022	Forecast then Actual	Forecast	
	Forecast then Actual	Forecast	
08/07/2022	Forecast	Forecast	
10/07/2022		Forecast	
11/07/2022	Forecast then Actual	Forecast	
12/07/2022	Forecast then Actual	Forecast	
		Forecast	
13/07/2022	Forecast then Actual	Forecast	
	Forecast then Actual	Forecast	
14/07/2022	Forecast	Forecast	
		Forecast	

Effective period	LOR1	LOR2	LOR3
15/07/2022	Forecast then Actual	Forecast	
	Forecast then Actual		
16/07/2022	Forecast	Forecast	
17/07/2022	Forecast	Forecast	
18/07/2022		Forecast	
19/07/2022		Forecast	
20/07/2022	Forecast then Actual	Forecast	
		Forecast	
		Forecast	
21/07/2022	Forecast then Actual	Forecast	
		Forecast	
22/07/2022		Forecast	
		Forecast	
24/07/2022	Forecast		
25/07/2022	Forecast	Forecast	
26/07/2022	Forecast		
27/07/2022	Forecast	Forecast	
		Forecast	
28/07/2022	Forecast	Forecast	
		Forecast	
29/07/2022	Forecast	Forecast	
		Forecast	
30/07/2022		Forecast	
31/07/2022	Forecast	Forecast	
01/08/2022	Forecast	Forecast	
		Forecast	
02/08/2022	Forecast	Forecast	
03/08/2022	Actual	Forecast	
		Forecast	
04/08/2022		Forecast	
07/08/2022	Forecast		
08/08/2022	Forecast		
11/08/2022		Forecast	
12/08/2022	Forecast then Actual		
13/08/2022	Forecast then Actual	Forecast	
	Forecast then Actual		
	Forecast then Actual		
15/08/2022	Forecast	Forecast	
	Forecast then Actual	Forecast	
16/08/2022	Forecast then Actual	Forecast	
	Forecast then Actual	Forecast	

Effective period	LOR1	LOR2	LOR3
17/08/2022	Forecast	Forecast	
	Forecast	Forecast	
18/08/2022	Forecast then Actual	Forecast	
	Forecast	Forecast	
19/08/2022	Forecast	Forecast	
	Forecast		
21/08/2022	Forecast	Forecast	
22/08/2022		Forecast	
		Forecast	
24/08/2022		Forecast	
25/08/2022		Forecast	
05/09/2022	Forecast then Actual		
06/09/2022	Forecast then Actual	Forecast	
07/09/2022	Forecast		
11/09/2022	Forecast then Actual		
12/09/2022	Forecast then Actual		
13/09/2022	Forecast then Actual		
14/09/2022	Forecast then Actual		
26/09/2022	Forecast		
South Australia (SA)			
01/07/2022	Forecast	Forecast	
	Forecast	Forecast	
02/07/2022	Forecast		
04/07/2022	Forecast	Forecast	
	Forecast		
05/07/2022	Forecast	Forecast	
06/07/2022	Forecast	Forecast	
	Forecast		
07/07/2022	Forecast	Forecast	
	Forecast		
08/07/2022	Forecast		
	Forecast		
09/07/2022	Forecast		
16/07/2022	Forecast	Forecast	
18/07/2022	Forecast	Forecast	
	Forecast then Actual		
23/07/2022		Forecast	
24/07/2022		Forecast	
27/07/2022	Forecast	Forecast	
		Forecast	

Effective period	LOR1	LOR2	LOR3
28/07/2022	Forecast	Forecast	
	Forecast	Forecast	
02/08/2022		Forecast	
		Forecast	
03/08/2022		Forecast	
		Forecast	
07/08/2022	Forecast	Forecast	
08/08/2022	Forecast then Actual	Forecast	
	Forecast	Forecast	
15/08/2022	Forecast	Forecast	Forecast
	Forecast	Forecast	
16/08/2022	Forecast	Forecast	
	Forecast then Actual	Forecast	
18/08/2022	Forecast		
20/08/2022	Forecast then Actual	Forecast	
23/08/2022	Forecast	Forecast	
	Forecast	Forecast	
24/08/2022	Forecast	Forecast	
	Forecast	Forecast	
25/08/2022	Forecast	Forecast	
	Forecast	Forecast	
26/08/2022	Forecast	Forecast	
	Forecast	Forecast	
29/08/2022	Forecast then Actual	Forecast	
30/08/2022	Forecast	Forecast	
	Forecast		
31/08/2022	Forecast		
01/09/2022	Forecast		
05/09/2022	Forecast		
07/09/2022	Forecast		
08/09/2022	Forecast then Actual		
09/09/2022	Forecast		
10/09/2022	Forecast then Actual	Forecast	
		Forecast	
11/09/2022	Actual	Forecast	
	Forecast		
12/09/2022	Forecast then Actual		
	Forecast then Actual		
14/09/2022	Forecast	Forecast	
15/09/2022		Forecast	
16/09/2022		Forecast	

Effective period	LOR1	LOR2	LOR3
18/09/2022	Forecast		
19/09/2022	Forecast	Forecast	
20/09/2022	Actual		
22/09/2022	Actual		
29/09/2022	Forecast		
Tasmania (TAS)			
04/07/2022	Forecast		
05/07/2022	Forecast		
06/07/2022	Forecast		
09/08/2022	Actual		
06/09/2022	Forecast		
Victoria (VIC)			
12/07/2022	Forecast		
29/07/2022	Forecast		
	Forecast		
	Forecast		
	Forecast		
30/07/2022	Forecast		
08/08/2022		Forecast	
16/08/2022	Forecast		

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 Causes of LOR declarations

As summarised in Table 2, a total of 253 LOR conditions were declared during the reporting period: 200 forecast and 53 actual LOR conditions.

Based on Table 2:

- Of the 134 forecast LOR1 conditions declared, 45 resulted in actual LOR1 conditions. These were counted as actual LOR1 conditions based on the declaration count principles outlined in Section 3.
- Of the 111 forecast LOR2 conditions declared, one resulted in an actual LOR2 condition. It was counted as an actual LOR2 condition based on the declaration count principles outlined in Section 3.
- There were 89 forecast LOR1 conditions that did not develop into actual LOR1 conditions, and 110 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 or transmission network service providers (TNSPs) rescheduling planned transmission outages. Some of the forecast LOR conditions were cancelled when the FUM value decreased

As Table 4 above shows, during the reporting period there were seven instances where actual LOR conditions occurred with no prior forecast.

- The LOR conditions in New South Wales and South Australia were mainly driven by decreased generation availability and high demand forecasts.
- The LOR conditions in Queensland were mainly driven by decreased generation availability and increased FUM values.
- The LOR conditions in Victoria and Tasmania were mainly due to decreased generation availability.

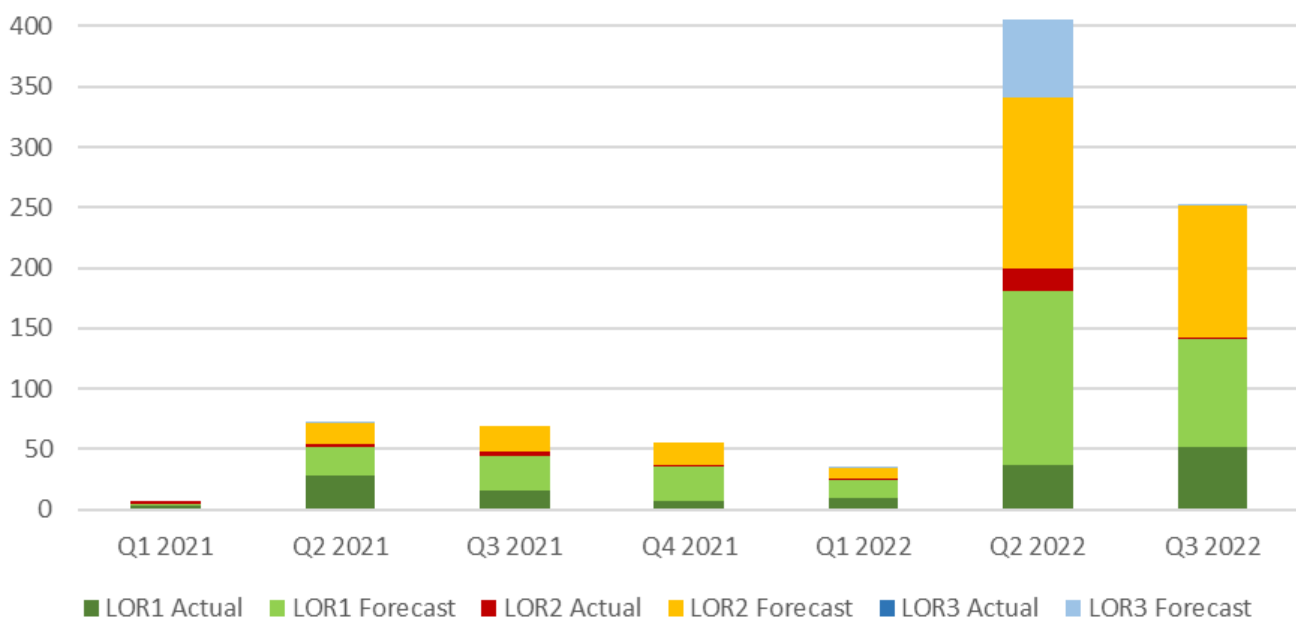
4.4 Number of LOR declarations compared to previous quarters

Quarter 3 2022 covered the mid-to late winter months and the first month of spring.

A total of 253 LOR conditions were declared during Quarter 3 2022: 200 forecast and 53 actual LOR conditions. This is significantly lower than the 406 LOR declarations recorded in the previous reporting period (1 April 2022 to 30 June 2022), but significantly higher than the 69 LOR conditions declared for the same period last year (Quarter 3 2021).

Figure 7 shows the historical trend of actual and forecast LOR conditions in past quarters from Quarter 1 2021 compared to the current quarter. The total number of LOR declarations has decreased significantly in this quarter compared to last quarter.

Figure 7 Quarterly comparison of actual and forecast LOR conditions, Q1 2021 to Q3 2022



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 Guidelines⁸ for further information.

Term	Definition
AEST	Australian Eastern Standard Time
BBN	Bayesian Belief Network ⁹
ETL	Extract-Transform-Load
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 ¹⁰
RERT	Reliability and Emergency Reserve Trader ¹¹
TNSP	Transmission network service provider

⁸ See AEMO's reserve level declaration guidelines, at https://www.aemo.com.au/-/media/files/electricity/nem/security_and_reliability/power_system_ops/reserve-level-declaration-guidelines.pdf.

⁹ More detail regarding Bayesian Belief Networks is available in the Appendix of AEMO's reserve level declaration guidelines document in the link above.

¹⁰ See AEMO's Projected Assessment of System Adequacy (PASA) principles, at <https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/projected-assessment-of-system-adequacy>.

¹¹ See AEMO's Reliability and Emergency Reserve Trader (RERT) guidelines, at <https://aemo.com.au/en/energy-systems/electricity/emergency-management/reliability-and-emergency-reserve-trader-rert>.