



STATUS REPORT

1 April 2019 to 30 June 2019

Prepared under clause 7.12 of the WEM Rules

Contents

1.	Introduction	3
2.	Issuance of Dispatch Instructions and Operating Instructions	4
3.	Non-Compliance with Dispatch Instructions and Operating Instructions	5
4.	Issuance of Dispatch Instruction to Balancing Facilities Out of Merit	7
4.1	Instances of Out of Merit dispatch identified by AEMO	7
4.2	Other instances of Out of Merit dispatch	7
5.	Transmission Constraints	8
6.	Operating States, Shortfalls in Ancillary Services and Involuntary Curtailment of Load	11
6.1	High Risk Operating State	11
6.2	Emergency Operating State	12
6.3	Shortfalls in Ancillary Services	13
6.4	Involuntary curtailment of load	13
7.	Selection and use of LFAS Facilities other than in accordance with LFAS Merit Order	14

1. Introduction

The Australian Energy Market Operator (AEMO) has prepared this report under clause 7.12 of the Wholesale Electricity Market Rules (WEM Rules).

Clause 7.12 of the WEM Rules requires AEMO to provide a report to the Economic Regulation Authority (ERA) once every three months on the performance of the market with respect to the dispatch process. The report must include details of:

- the incidence and extent of issuance of Operating Instructions and Dispatch Instructions;
- the incidence and extent of non-compliance with Operating Instructions and Dispatch Instructions;
- the incidence and reasons for the issuance of Dispatch Instructions to Balancing Facilities Out of Merit, including for the purposes of clause 7.12.1 of the WEM Rules, issuing Dispatch Orders to the Balancing Portfolio in accordance with clause 7.6.2 of the WEM Rules;
- the incidence and extent of transmission constraints;
- the incidence and extent of shortfalls in Ancillary Services, involuntary curtailment of load, High Risk Operating States and Emergency Operating States; and
- the incidence and reasons for the selection and use of LFAS Facilities under clause 7B.3.8 of the WEM Rules.

In this report:

- the reporting period is from 1 April 2019 to 30 June 2019;
- terms that are capitalised but not defined have the meaning given in the WEM Rules; and
- date references are to Trading Days, not calendar days, unless otherwise stated.

2. Issuance of Dispatch Instructions and Operating Instructions

AEMO issued 11,110 Dispatch Instructions to Market Participants during the reporting period.

Figure 1 shows the number of Dispatch Instructions issued during each Trading Month since 1 January 2018.

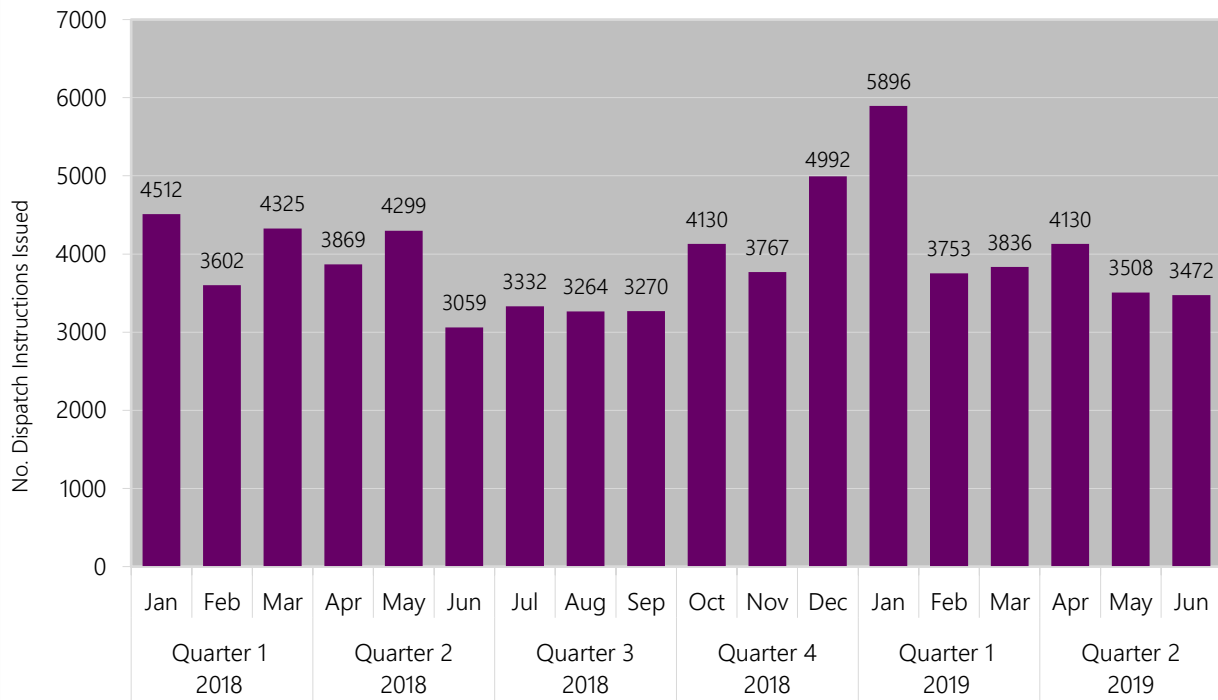


Figure 1: Dispatch Instructions per Trading Month

AEMO issued 1772 Operating Instructions during the reporting period.

Three situations where AEMO may issue Operating Instructions under the WEM Rules are for Commissioning Tests, Reserve Capacity Tests and provision of services under the Network Control Service Contracts.

Figure 2 shows the number of Operating Instructions issued during each Trading Month since 1 January 2018.

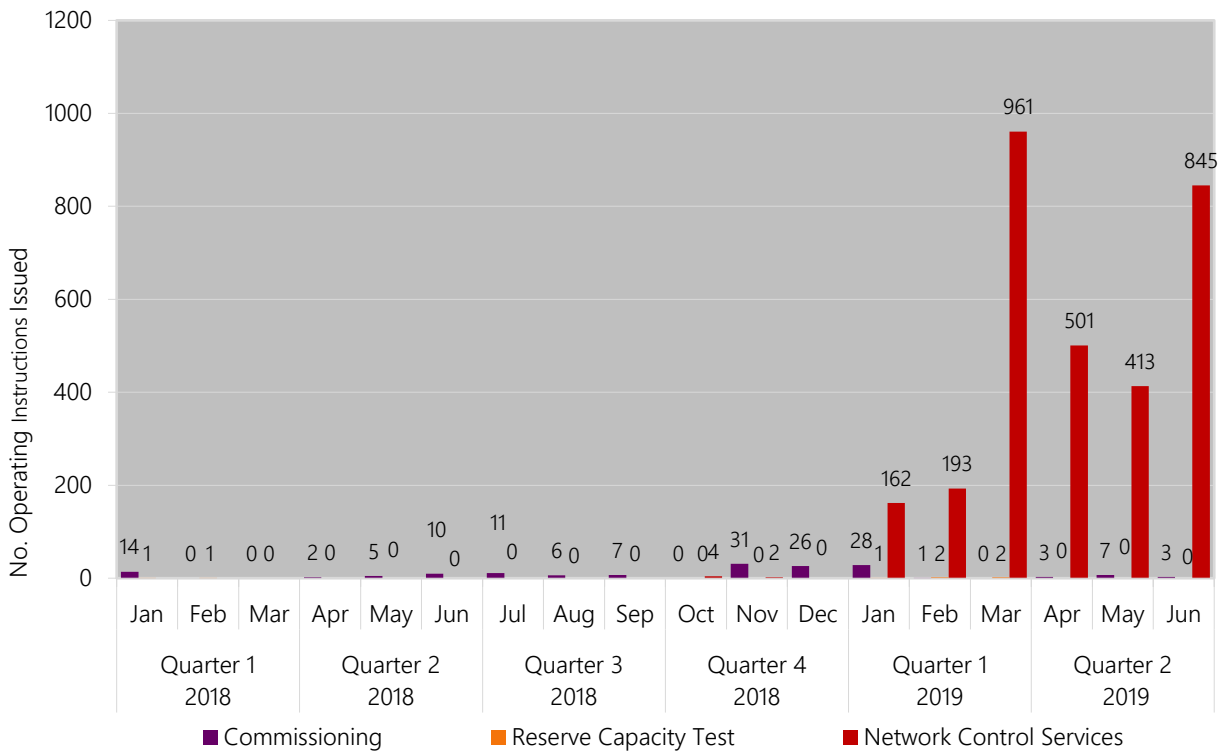


Figure 2: Operating Instructions per Trading Month

3. Non-Compliance with Dispatch Instructions and Operating Instructions¹

During the reporting period, AEMO issued 7,916 one-minute non-compliance notifications to Market Participants for non-compliance with Dispatch Instructions, taking into account the Tolerance Range, and any Facility Tolerance Ranges, where applicable.

During the reporting period, there were 96 instances where a Market Participant did not confirm receipt of a Dispatch Instruction when required to do so under the WEM Rules and the Dispatch Power System Operation Procedure.

During the reporting period, there were two instances where a Market Participant did not confirm receipt of an Operating Instruction when required to do so under the WEM Rules and the Dispatch Power System Operation Procedure.

Figure 3 below provides historical non-compliance data since 1 January 2018.

¹ Instances of non-compliance are calculated using information AEMO has at hand at the time of creation of the 7.12 report. Actual instances may differ once reviewed and determined by the ERA.

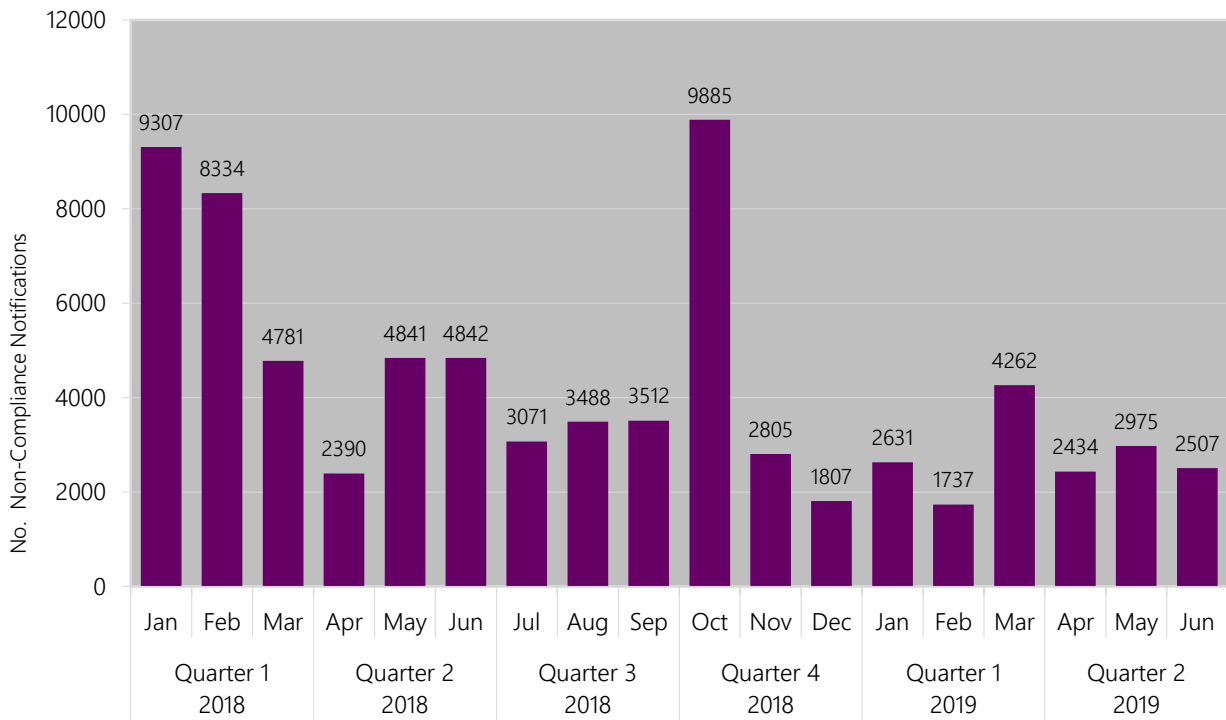


Figure 3: Dispatch Instruction non-compliance notifications

Figure 4 provides historical data for non-acknowledgement of Dispatch Instructions since 1 January 2018.

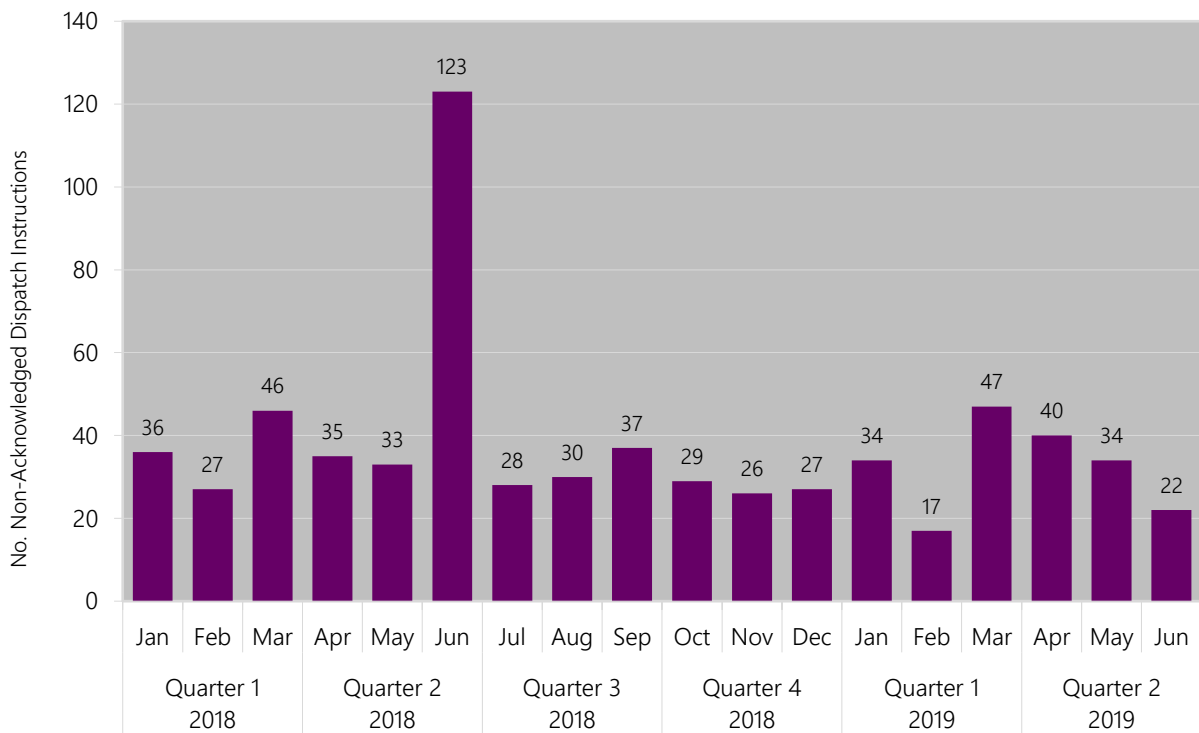


Figure 4: Non-acknowledged Dispatch Instructions

4. Issuance of Dispatch Instruction to Balancing Facilities Out of Merit

4.1 Instances of Out of Merit dispatch identified by AEMO

During the reporting period, there were no instances where Dispatch Instructions were issued to Balancing Facilities Out of Merit².

4.2 Other instances of Out of Merit dispatch

Section 5 of this report provides information regarding instances of Out of Merit dispatch due to transmission network constraints. AEMO Issues Dispatch Advisories when these situations occur.

Section 6 of this report describes occasions of High Risk and Emergency Operating States that occurred during the reporting period. During elevated Operating States, there may be a need to dispatch Facilities Out of Merit to enable the SWIS to be returned to a Normal Operating State.

² 7.6.1D of the WEM Rules provides for Out of Merit dispatch to avoid a High Risk Operating State or an Emergency Operating State or, if the SWIS is in a High Risk Operating State or an Emergency Operating State, to enable the SWIS to be returned to a Normal Operating State.

5. Transmission Constraints

A “transmission constraint” refers to the configuration of the transmission network that has an effect or potential effect of constraining or otherwise varying the output of a generation Facility. As a result of the transmission constraint, the generation Facility is required to increase or decrease output, depending on the relevant circumstances.

AEMO has identified the following transmission constraints during the reporting period:

- From Trading Interval 5:2 to Trading Interval 16:2 on 02 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the ALINTA_WWF Facility (Dispatch Advisory 18588).
 - The ALINTA_WWF Facility was constrained to 0MW for 23 Trading Intervals.
- From Trading Interval 5:2 to Trading Interval 16:2 on 02 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the MWF_MUMBIDA_WF1 Facility (Dispatch Advisory 18588).
 - The MWF_MUMBIDA_WF1 Facility was constrained to 0MW for 23 Trading Intervals.
- From Trading Interval 5:2 to Trading Interval 16:2 on 02 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the GREENOUGH_RIVER_PV1 Facility (Dispatch Advisory 18588).
 - The GREENOUGH_RIVER_PV1 Facility was constrained between 0MW and 1MW for 23 Trading Intervals.
- From Trading Interval 5:2 on 03 April 2019 to Trading Interval 17:2 on 04 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the ALINTA_WWF Facility (Dispatch Advisory 18588 and 18591).
 - The ALINTA_WWF Facility was constrained to 0MW for 73 Trading Intervals.
- From Trading Interval 5:2 on 03 April 2019 to Trading Interval 17:2 on 04 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the MWF_MUMBIDA_WF1 Facility (Dispatch Advisory 18588 and 18591).
 - The MWF_MUMBIDA_WF1 Facility was constrained to 0MW for 73 Trading Intervals.
- From Trading Interval 5:2 on 03 April 2019 to Trading Interval 17:2 on 04 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the GREENOUGH_RIVER_PV1 Facility (Dispatch Advisory 18588 and 18591).
 - The GREENOUGH_RIVER_PV1 Facility was constrained to 0MW for 73 Trading Intervals.
- From Trading Interval 5:2 on 05 April 2019 to Trading Interval 17:1 on 06 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the ALINTA_WWF Facility (Dispatch Advisory 18588 and 18592).
 - The ALINTA_WWF Facility was constrained to 0MW for 72 Trading Intervals.
- From Trading Interval 5:2 on 05 April 2019 to Trading Interval 17:1 on 06 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the MWF_MUMBIDA_WF1 Facility (Dispatch Advisory 18588 and 18592).
 - The MWF_MUMBIDA_WF1 Facility was constrained to 0MW for 72 Trading Intervals.
- From Trading Interval 6:2 on 05 April 2019 to Trading Interval 17:1 on 06 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the GREENOUGH_RIVER_PV1 Facility (Dispatch Advisory 18588 and 18592).

STATUS REPORT

- The GREENOUGH_RIVER_PV1 Facility was constrained to 0MW for 70 Trading Intervals.
- From Trading Interval 5:2 to Trading Interval 14:1 on 07 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the ALINTA_WWF Facility (Dispatch Advisory 18588).
 - The ALINTA_WWF Facility was constrained to 0MW for 18 Trading Intervals.
- From Trading Interval 5:2 to Trading Interval 14:1 on 07 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the MWF_MUMBIDA_WF1 Facility (Dispatch Advisory 18588).
 - The MWF_MUMBIDA_WF1 Facility was constrained to 0MW for 18 Trading Intervals.
- From Trading Interval 5:2 to Trading Interval 14:1 on 07 April 2019, a planned network outage in the North Country region, resulted in the need to constrain the GREENOUGH_RIVER_PV1 Facility (Dispatch Advisory 18588).
 - The GREENOUGH_RIVER_PV1 Facility was constrained to 0MW for 18 Trading Intervals.
- From Trading Interval 6:2 to Trading Interval 17:2 on 17 April 2019, a planned network outage resulted in the need to constrain the ALBANY_WF1 Facility (Dispatch Advisory 18609).
 - The ALBANY_WF1 Facility was constrained between 0MW and 13MW for 23 Trading Intervals.
- From Trading Interval 16:1 to Trading Interval 17:2 on 17 April 2019, a planned network outage resulted in the need to constrain the GRASMERE_WF1 Facility (Dispatch Advisory 18609).
 - The GRASMERE_WF1 Facility was constrained to 0MW for 4 Trading Intervals.
- From Trading Interval 4:2 to Trading Interval 18:2 on 01 May 2019 a planned network outage on the 220kV line in the Eastern Goldfields region, resulted in the need to constrain the PRK_AG Facility (Dispatch Advisory 18630).
 - The PRK_AG Facility was constrained between 10MW and 20MW for 29 Trading Intervals.
- From Trading Interval 4:2 to Trading Interval 18:2 on 01 May 2019, a planned network outage on the 220kV line in the Eastern Goldfields region, resulted in the need to constrain the STHRNCRS_EG Facility (Dispatch Advisory 18630).
 - The STHRNCRS_EG Facility was constrained to 23MW for 29 Trading Intervals.
- From Trading Interval 7:1 to Trading Interval 19:1 on 02 May 2019, a planned network outage on the 220kV line in the Eastern Goldfields region, resulted in the need to constrain the PRK_AG Facility (Dispatch Advisory 18629).
 - The PRK_AG Facility was constrained between 10MW and 18MW for 25 Trading Intervals.
- From Trading Interval 7:1 to Trading Interval 19:1 on 02 May 2019, a planned network outage on the 220kV line in the Eastern Goldfields region, resulted in the need to constrain the STHRNCRS_EG Facility (Dispatch Advisory 18629).
 - The STHRNCRS_EG Facility was constrained to 23MW for 25 Trading Intervals.
- From Trading Interval 9:2 to Trading Interval 22:1 on 04 May 2019, a trip on the SNR_WGP_APJ81 line resulted in the need to constrain the ALCOA_WGP Facility (Dispatch Advisory 18648).
 - The ALCOA_WGP Facility was constrained to 0MW for 26 Trading Intervals.
- From Trading Interval 14:2 to 14:2 on 24 May 2019, anti-islanding issues resulted in the need to constrain the ALINTA_WWF Facility (no Dispatch Advisory was issued).
 - The ALINTA_WWF Facility was constrained to 0MW for 1 Trading Interval.

STATUS REPORT

- From Trading Interval 21:1 on 21 June 2019 to Trading Interval 0:2 on 23 May 2019, anti-islanding issues resulted in the need to constrain the ALCOA_WGP Facility (no Dispatch Advisory was issued).
 - The ALCOA_WGP Facility was constrained to 0MW for 79 Trading Intervals.
- From Trading Interval 22:1 on 22 June 2019 to Trading Interval 12:1 on 24 June 2019, a trip on the MBA-TS81 line resulted in the need to constrain the ALINTA_WWF Facility (Dispatch Advisory 18809).
 - The ALINTA_WWF Facility was constrained between 0MW and 25MW for 53 Trading Intervals.
- From Trading Interval 22:1 on 22 June 2019 to Trading Interval 12:1 on 24 June 2019, a trip on the MBA-TS81 line resulted in the need to constrain the MWF_MUMBIDA_WF1 Facility (Dispatch Advisory 18809).
 - The MWF_MUMBIDA_WF1 Facility was constrained between 0MW and 20MW for 53 Trading Intervals.
- From Trading Interval 7:1 on 23 June 2019 to Trading Interval 0:1 on 24 June 2019, a trip on the MBA-TS81 line resulted in the need to constrain the GREENOUGH_RIVER_PV1 Facility (Dispatch Advisory 18809).
 - The GREENOUGH_RIVER_PV1 Facility was constrained to 0MW for 35 Trading Intervals.

6. Operating States, Shortfalls in Ancillary Services and Involuntary Curtailment of Load

6.1 High Risk Operating State

There was one instance of a High Risk Operating State during the reporting period.

Figure 5 provides historical data for High Risk Operating States that have occurred since 1 January 2018.

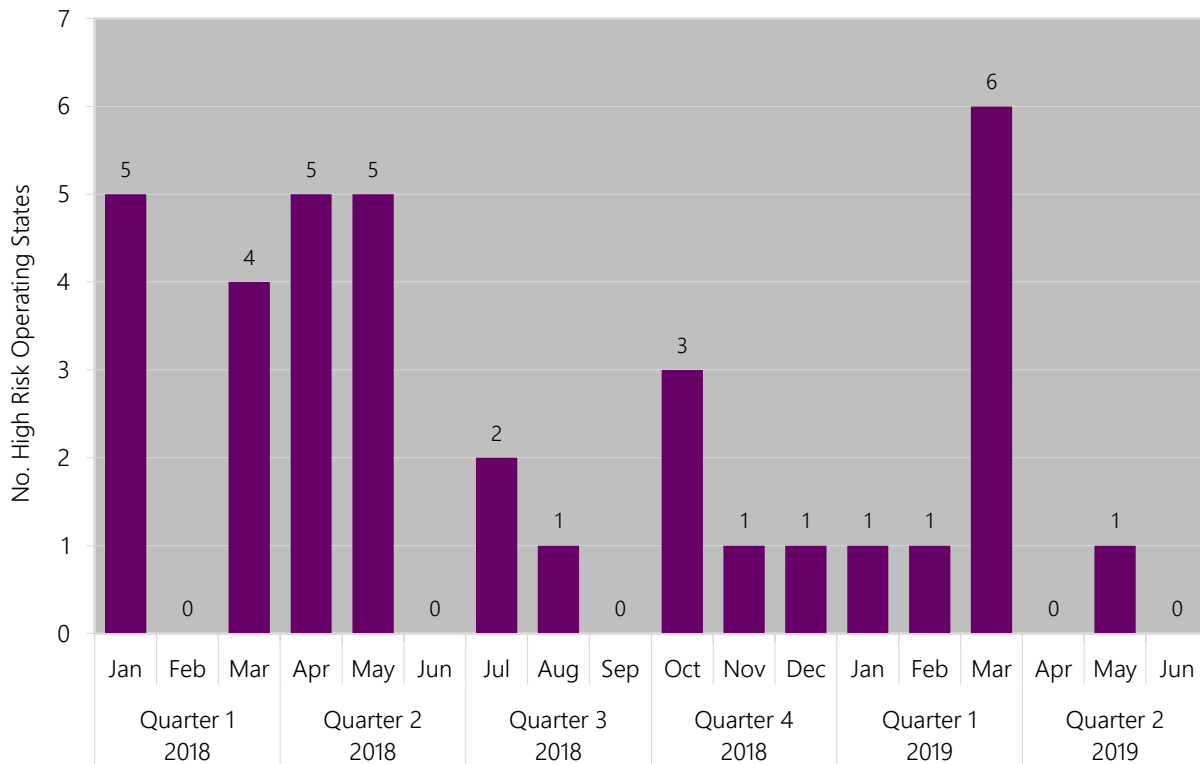


Figure 5: High Risk Operating States

Date/Interval/s	14 May 2019 / Trading Interval 13:2
Dispatch Advisory Number	18692
Details	At 13:39 the ALINTA_WGP_GT Facility tripped resulting in the loss of approximately 197MW and a frequency deviation to 49.58Hz. Frequency returned to a normal operating level within 75 seconds of the Facility tripping.
AEMO action	AEMO was required to dispatch according to the latest Balancing Merit Order to maintain Power System Security and Power System Reliability. There was no Out of Merit generation required.

6.2 Emergency Operating State

There was one instance of an Emergency Operating State during the reporting period.

Figure 6 provides historical data for Emergency Operating States that have occurred since 1 January 2018.

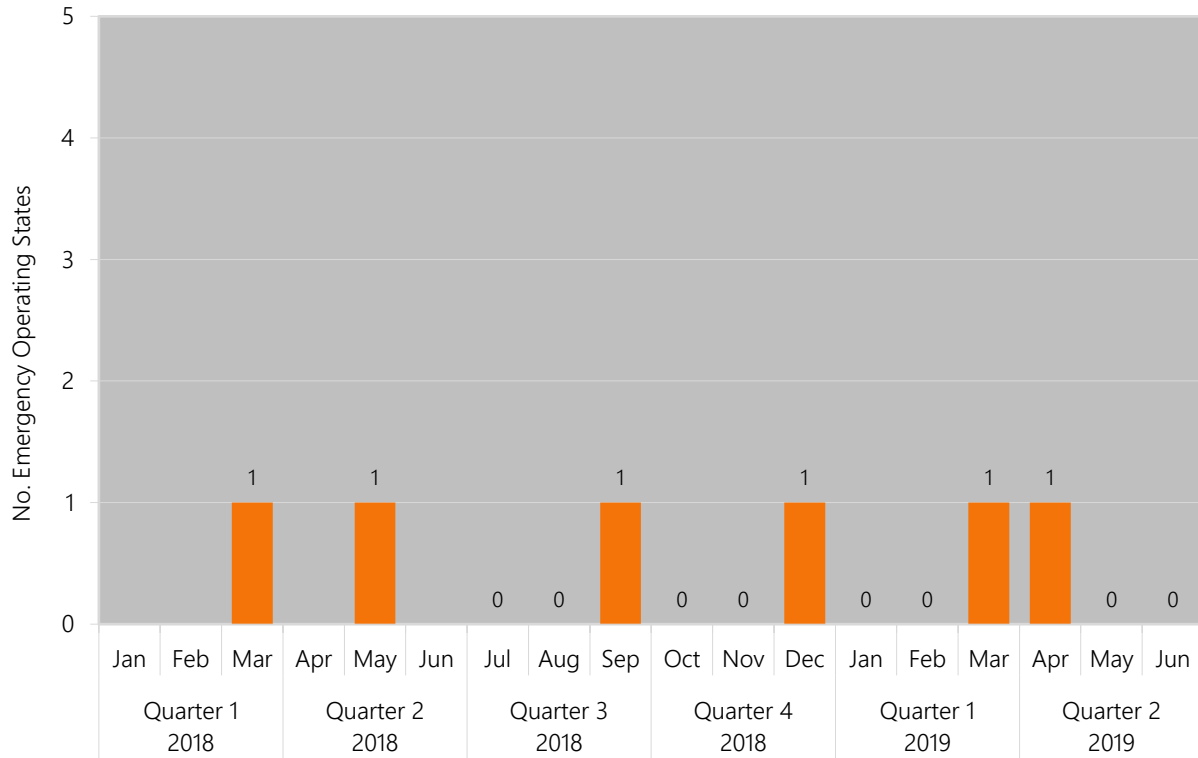


Figure 6: Emergency Operating States

Date/Interval/s	10 April 2019 / Trading Interval 11:2
Dispatch Advisory Number	18595
Details	AEMO experienced an IT systems failure.
AEMO action	AEMO was required to hand over frequency control and relocate to the backup Facility.

6.3 Shortfalls in Ancillary Services

During the reporting period there were 53 instances of a shortfall in Ancillary Services. A shortfall occurs when the Ancillary Service Requirements are not met within a Trading Interval.

AEMO’s primary function as the system operator in the SWIS is to ensure the SWIS operates in a secure and reliable manner (clause 2.2.1 of the WEM Rules). The Load Rejection Reserve Service is (relevantly) the service of holding capacity associated with a Scheduled Generator in reserve so that the Scheduled Generator can reduce output rapidly in response to a sudden decrease in SWIS load.

The 53 instances related to the Load Rejection Reserve Service³. In June 2019, AEMO published the WEM Ancillary Services report⁴ advising that as of April 2019, AEMO would begin conducting a Load Rejection Reserve trial by using a dynamic requirement in real time. Quarter 2 2019 represents the commencement of the dynamic Load Rejection Reserve trial and shows a significant decrease in Shortfalls in Load Rejection Reserve Service.

AEMO does not consider that any of the shortfalls threatened Power System Security or Power System Reliability or placed the SWIS in a High Risk Operating State or an Emergency Operating State.

Figure 7 below provides data for shortfalls in Ancillary Services that have occurred since 1 January 2018.

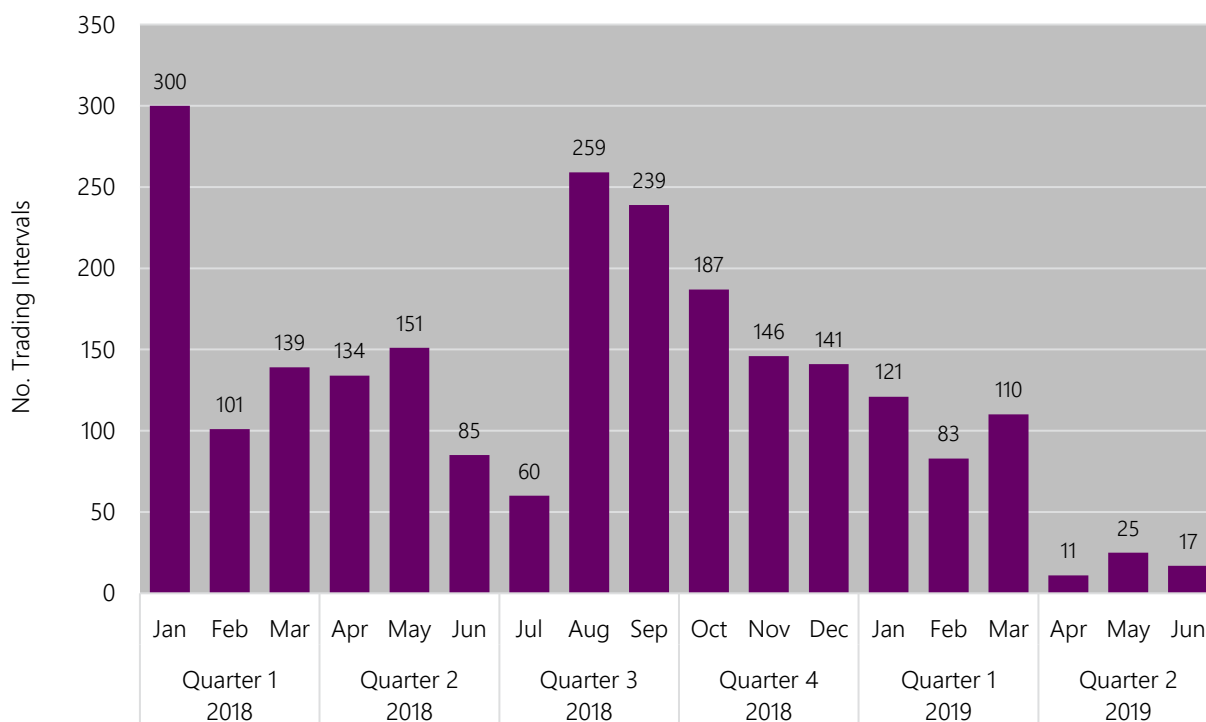


Figure 7: Number of Shortfalls in Ancillary Services

6.4 Involuntary curtailment of load

There were no instances of involuntary curtailment of load during the reporting period.

³ Data is based on the number of Trading Intervals where Load Rejection Reserve of less than 90MW occurred, calculated using five-minute averages.

⁴ <https://www.aemo.com.au/-/media/Files/Electricity/WEM/Data/System-Management-Reports/2019-Ancillary-Services-Report.pdf>.

7. Selection and use of LFAS Facilities other than in accordance with LFAS Merit Order

During the reporting period, there were no instances where AEMO was required to use LFAS Facilities outside of the LFAS Merit Order to operate the SWIS in a reliable and safe manner under clause 7B.3.8 of the WEM Rules.