



STATUS REPORT

1 October 2021 to 31 December 2021

Prepared for the ERA under clause 7.12 of the
WEM Rules

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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:

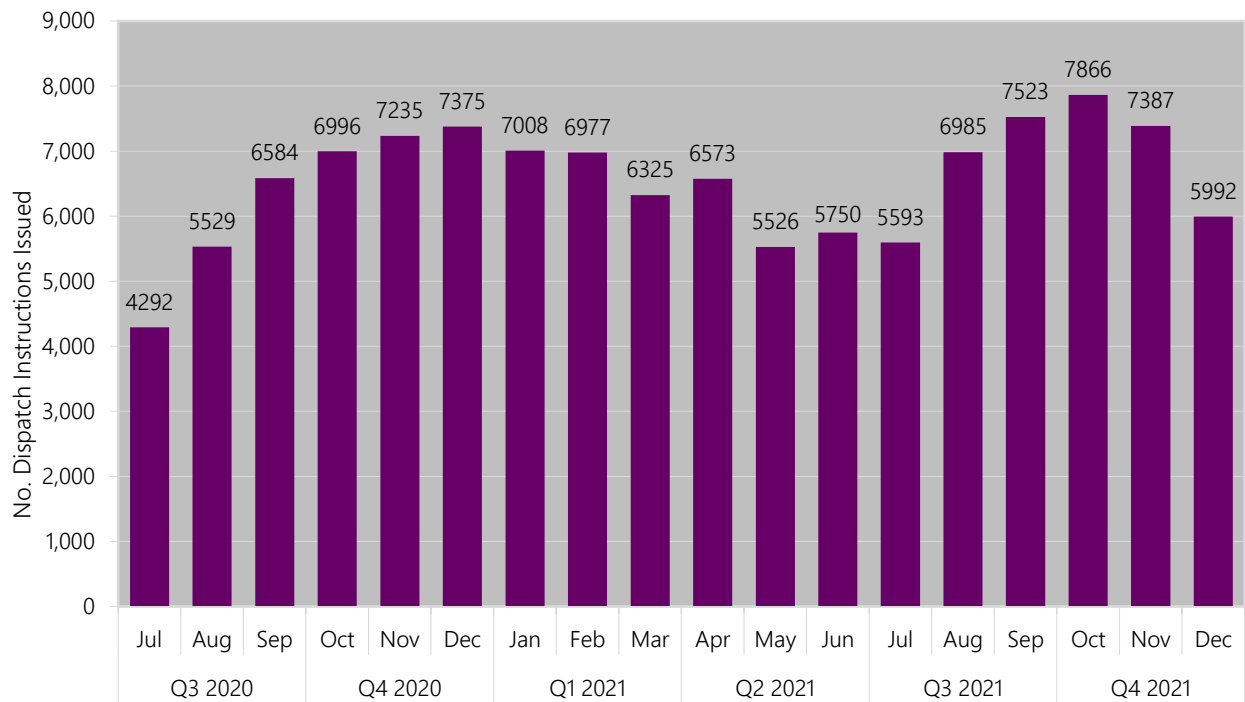
- the reporting period is from 1 October 2021 to 31 December 2021;
- terms that are capitalised but not defined have the meaning given in the WEM Rules; and
- date references are to Trading Days, not calendar days, unless otherwise stated.

2. Issuance of Dispatch Instructions and Operating Instructions

2.1 Dispatch Instructions

AEMO issued 21,245 Dispatch Instructions to Market Participants during the reporting period.

Figure 1: Dispatch Instructions issued during each Trading Month since 1 July 2020.

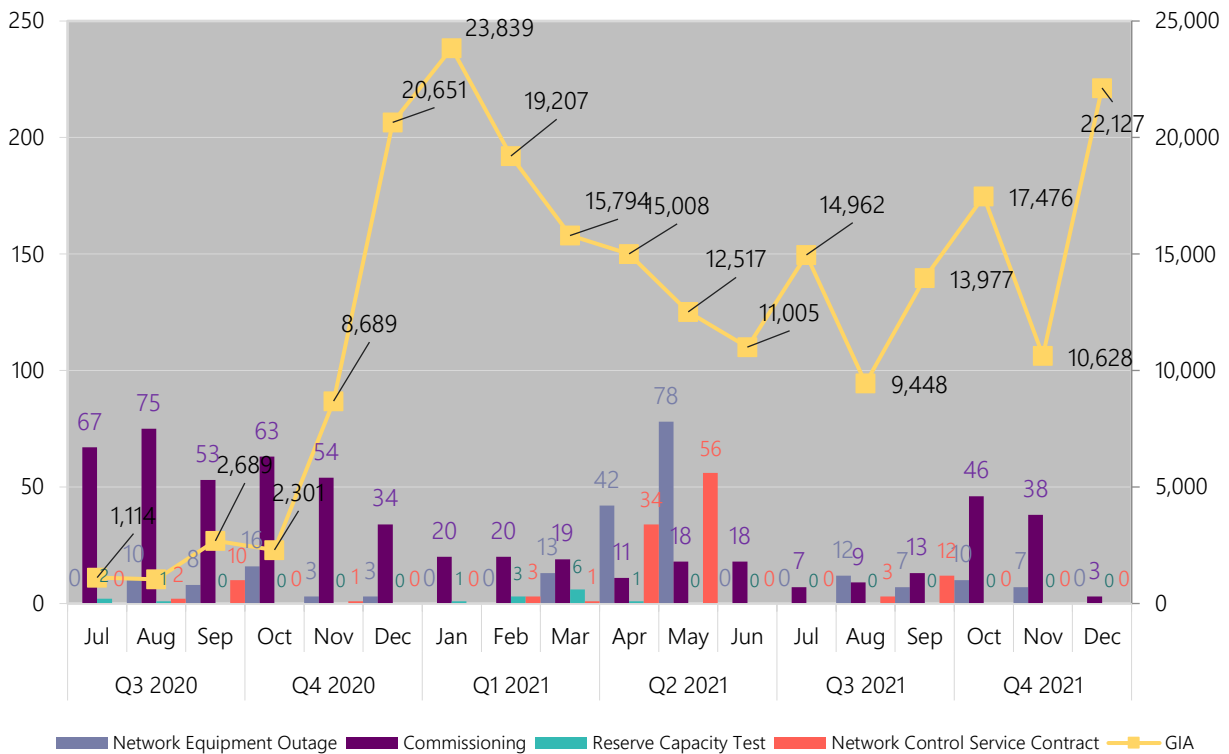


2.2 Operating Instructions

AEMO issued 50,335 Operating Instructions during the reporting period.

Situations where AEMO may issue Operating Instructions under the WEM Rules are for Commissioning Tests, Reserve Capacity Tests, Network Equipment Outages (pursuant to clause 7.7.11.) and provision of services under the Network Control Service Contracts and Generator Interim Access (GIA) Operating Instructions.

Figure 2: Operating Instructions¹ issued during each Trading Month since 1 July 2020.



3. Non-Compliance with Dispatch Instructions and Operating Instructions²

During the reporting period, AEMO issued the following one-minute non-compliance notifications to Market Participants, considering the Tolerance Range and any Facility Tolerance Ranges, where applicable:

- 13,092 Dispatch Instruction non-compliance notifications, and
- 692 Operating Instructions non-compliance notifications.

During the reporting period, the following were instances where a Market Participant did not confirm receipt when required to do so under the WEM Rules:

- 229 instances of non-acknowledgement of Dispatch Instructions, and
- 1,138 instances of non-acknowledgement of Operating Instructions.

¹ Generator Interim Access (GIA) Operating Instructions are a sub-set of Network Control Service (NCS) Operating Instructions. Figure 2 separates GIA from NCS for clarity.

² 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 since 1 July 2020.

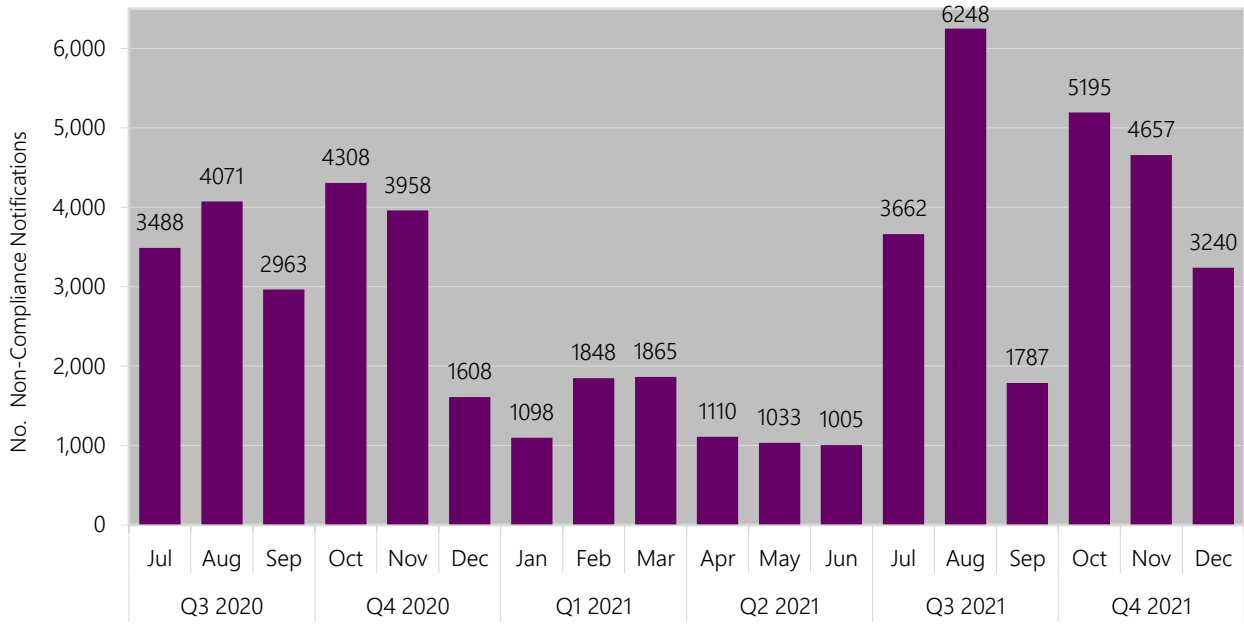
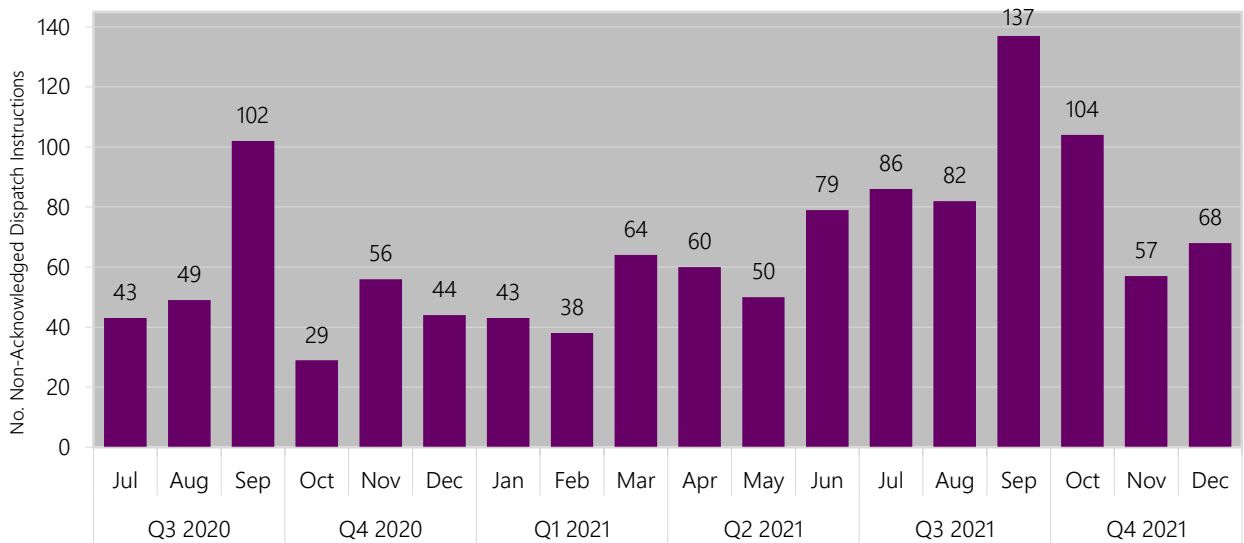


Figure 4: Non-acknowledgement of Dispatch Instructions since 1 July 2020.



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, nine instances were identified where Dispatch Instructions were issued to Balancing Facilities Out of Merit.

Date/Interval/s	24 Dec 2021 / Trading Interval 17:1 to Trading Interval 19:2
Dispatch Advisory #	208556
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the NEWGEN_NEERABUP_GT1 Facility up to a maximum of 330MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	26 Dec 2021 / Trading Interval 17:2 to Trading Interval 21:2
Dispatch Advisory #	208557
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_U2 Facility up to a maximum of 168MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	26 Dec 2021 / Trading Interval 18:1 to Trading Interval 20:2
Dispatch Advisory #	208558
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the NAMKKN_MERR_SG1 Facility up to a maximum of 40MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	26 Dec 2021 / Trading Interval 17:2 to Trading Interval 22:2
Dispatch Advisory #	208560
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the PERTHENERGY_KWINANA_GT1 Facility up to a maximum of 110MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

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Date/Interval/s	26 Dec 2021 / Trading Interval 20:1 to Trading Interval 22:1
Dispatch Advisory #	208561
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_GT Facility up to a maximum of 100MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	27 Dec 2021 / Trading Interval 16:2 to Trading Interval 20:2
Dispatch Advisory #	208562
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_U2 Facility up to a maximum of 100MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	27 Dec 2021 / Trading Interval 17:1 to Trading Interval 20:2
Dispatch Advisory #	208563
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_U2 Facility up to a maximum of 198MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	27 Dec 2021 / Trading Interval 17:2 to Trading Interval 21:1
Dispatch Advisory #	208564
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_GT Facility up to a maximum of 198MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

Date/Interval/s	27 Dec 2021 / Trading Interval 18:2 to Trading Interval 19:2
Dispatch Advisory #	208565
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the NAMKKN_MERR_SG1 Facility up to a maximum of 50MW.
AEMO Action	AEMO dispatched Out of Merit to maintain Power System Security and Reliability.

The above 9 incidents of Out of Merit dispatch are also included in Section 5 of this report.

4.2 Other instances of Out of Merit dispatch³

There were no other instances of Out of Merit dispatch.

³ 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.

Section 5 of this report includes 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. Note that 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.

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:

Date/Interval/s	From Trading Interval 4:1 on 2 Oct 2021 to Trading Interval 16:2 on 3 Oct 2021
Dispatch Advisory #	208336
Details	A forced Western Power Network outage on the TS-MBA81 line resulted in the need to constrain the ALINTA_WWF Facility to 0MW.

Date/Interval/s	From Trading Interval 4:1 on 2 Oct 2021 to Trading Interval 16:2 on 3 Oct 2021
Dispatch Advisory #	208336
Details	A forced Western Power Network outage on the TS-MBA81 line resulted in the need to constrain the MWF_MUMBIDA_WF1 Facility to 0MW.

Date/Interval/s	From Trading Interval 4:1 on 2 Oct 2021 to Trading Interval 4:2 on 2 Oct 2021
Dispatch Advisory #	208336
Details	A forced Western Power Network outage on the TS-MBA81 line resulted in the need to constrain a facility.

Date/Interval/s	From Trading Interval 13:2 on 20 Oct 2021 to Trading Interval 8:2 on 21 Oct 2021
Dispatch Advisory #	208393
Details	A forced Western Power Network outage of the BGA808.4 breaker resulted in the need to constrain the BADGINGARRA_WF1 Facility to 0MW.

Date/Interval/s	From Trading Interval 12:2 on 21 Oct 2021 to Trading Interval 16:1 on 21 Oct 2021
Dispatch Advisory #	208393
Details	A forced Western Power Network outage of the BGA808.4 breaker resulted in the need to constrain the BADGINGARRA_WF1 Facility to 0MW.

Date/Interval/s	From Trading Interval 10:2 on 30 Oct 2021 to Trading Interval 15:1 on 30 Oct 2021
Dispatch Advisory #	208414
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.

Date/Interval/s	From Trading Interval 10:1 on 31 Oct 2021 to Trading Interval 14:2 on 31 Oct 2021
Dispatch Advisory #	208415

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Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.
Date/Interval/s	From Trading Interval 10:2 on 3 Nov 2021 to Trading Interval 15:1 on 3 Nov 2021
Dispatch Advisory #	208419
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 183MW.
Date/Interval/s	From Trading Interval 10:2 on 4 Nov 2021 to Trading Interval 14:1 on 4 Nov 2021
Dispatch Advisory #	208420
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.
Date/Interval/s	From Trading Interval 10:1 on 6 Nov 2021 to Trading Interval 15:1 on 6 Nov 2021
Dispatch Advisory #	208421
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 200 MW.
Date/Interval/s	From Trading Interval 7:2 on 7 Nov 2021 to Trading Interval 8:2 on 7 Nov 2021
Dispatch Advisory #	208422
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 183 MW.
Date/Interval/s	From Trading Interval 8:2 on 7 Nov 2021 to Trading Interval 15:2 on 7 Nov 2021
Dispatch Advisory #	208423
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.
Date/Interval/s	From Trading Interval 10:2 on 8 Nov 2021 to Trading Interval 14:2 on 8 Nov 2021
Dispatch Advisory #	208424
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 200 MW.
Date/Interval/s	From Trading Interval 10:1 on 10 Nov 2021 to Trading Interval 15:2 on 10 Nov 2021
Dispatch Advisory #	208427
Details	Low load conditions resulted in the need to constrain the largest Facility to a maximum of 130 MW.
Date/Interval/s	From Trading Interval 9:1 on 11 Nov 2021 to Trading Interval 9:2 on 11 Nov 2021
Dispatch Advisory #	208428
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 183 MW.
Date/Interval/s	From Trading Interval 9:2 on 11 Nov 2021 to Trading Interval 14:2 on 11 Nov 2021
Dispatch Advisory #	208429
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.

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Date/Interval/s	From Trading Interval 10:1 on 12 Nov 2021 to Trading Interval 11:1 on 12 Nov 2021
Dispatch Advisory #	208431
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 183 MW.
Date/Interval/s	From Trading Interval 11:1 on 12 Nov 2021 to Trading Interval 14:1 on 12 Nov 2021
Dispatch Advisory #	208432
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.
Date/Interval/s	From Trading Interval 11:1 on 12 Nov 2021 to Trading Interval 14:1 on 12 Nov 2021
Dispatch Advisory #	208432
Details	Low load conditions resulted in the need to constrain the NEWGEN_KWINANA_CCG1 Facility to a maximum of 127 MW. (Refer to Section 7 regarding LFAS down quantities)
Date/Interval/s	From Trading Interval 14:1 on 12 Nov 2021 to Trading Interval 15:2 on 12 Nov 2021
Dispatch Advisory #	208433
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 183 MW.
Date/Interval/s	From Trading Interval 14:1 on 12 Nov 2021 to Trading Interval 15:2 on 12 Nov 2021
Dispatch Advisory #	208433
Details	Low load conditions resulted in the need to constrain the NEWGEN_KWINANA_CCG1 Facility to a maximum of 196 MW. (Refer to Section 7 regarding LFAS down quantities)
Date/Interval/s	From Trading Interval 8:1 on 13 Nov 2021 to Trading Interval 15:1 on 13 Nov 2021
Dispatch Advisory #	208434
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.
Date/Interval/s	From Trading Interval 7:2 on 14 Nov 2021 to Trading Interval 14:1 on 14 Nov 2021
Dispatch Advisory #	208435
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 115 MW.
Date/Interval/s	From Trading Interval 13:2 on 18 Nov 2021 to Trading Interval 15:1 on 18 Nov 2021
Dispatch Advisory #	208451
Details	A communications issue resulted in the need to island STHRNCRS_EG from the SWIS.
Date/Interval/s	From Trading Interval 12:1 on 19 Nov 2021 to Trading Interval 16:1 on 19 Nov 2021
Dispatch Advisory #	208452
Details	A forced Western Power Network outage on MGA881.0 resulted in the need to constrain the GREENOUGH_RIVER_PV1 Facility to 0MW.

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Date/Interval/s	From Trading Interval 10:2 on 20 Nov 2021 to Trading Interval 11:2 on 20 Nov 2021
Dispatch Advisory #	208453
Details	Low load conditions resulted in the need to constrain the BW1_BLUEWATERS_G2 Facility to a maximum of 135 MW.
Date/Interval/s	From Trading Interval 11:1 on 23 Nov 2021 to Trading Interval 12:2 on 23 Nov 2021
Dispatch Advisory #	208455
Details	A forced Western Power Network outage on ALB501 resulted in the need to constrain the ALBANY_WF1 Facility to a maximum of 11MW.
Date/Interval/s	From Trading Interval 6:2 on 24 Nov 2021 to Trading Interval 16:2 on 24 Nov 2021
Dispatch Advisory #	208456
Details	A forced Western Power Network outage of ALB T2 and part of the 132kV Busbar resulted in the need to constrain the ALBANY_WF1 Facility to a maximum of 13MW.
Date/Interval/s	From Trading Interval 8:1 on 30 Nov 2021 to Trading Interval 19:2 on 30 Nov 2021
Dispatch Advisory #	208471
Details	A planned Western Power Network outage of ALB_WF1 resulted in the need to constrain the ALBANY_WF1 Facility to 0MW.
Date/Interval/s	From Trading Interval 9:1 on 19 Dec 2021 to Trading Interval 9:2 on 19 Dec 2021
Dispatch Advisory #	208551
Details	Low load conditions resulted in the need to constrain a Facility to a maximum of 160 MW.
Date/Interval/s	From Trading Interval 16:2 on 24 Dec 2021 to Trading Interval 19:1 on 24 Dec 2021
Dispatch Advisory #	208556
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the NEWGEN_NEERABUP_GT1 Facility up to a maximum of 330MW.
Date/Interval/s	From Trading Interval 17:2 on 26 Dec 2021 to Trading Interval 21:1 on 26 Dec 2021
Dispatch Advisory #	208557
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_U2 Facility up to a maximum of 168MW.
Date/Interval/s	From Trading Interval 18:1 on 26 Dec 2021 to Trading Interval 19:2 on 26 Dec 2021
Dispatch Advisory #	208558
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the NAMKKN_MERR_SG1 Facility up to a maximum of 40MW.
Date/Interval/s	From Trading Interval 17:2 on 26 Dec 2021 to Trading Interval 22:1 on 26 Dec 2021
Dispatch Advisory #	208560

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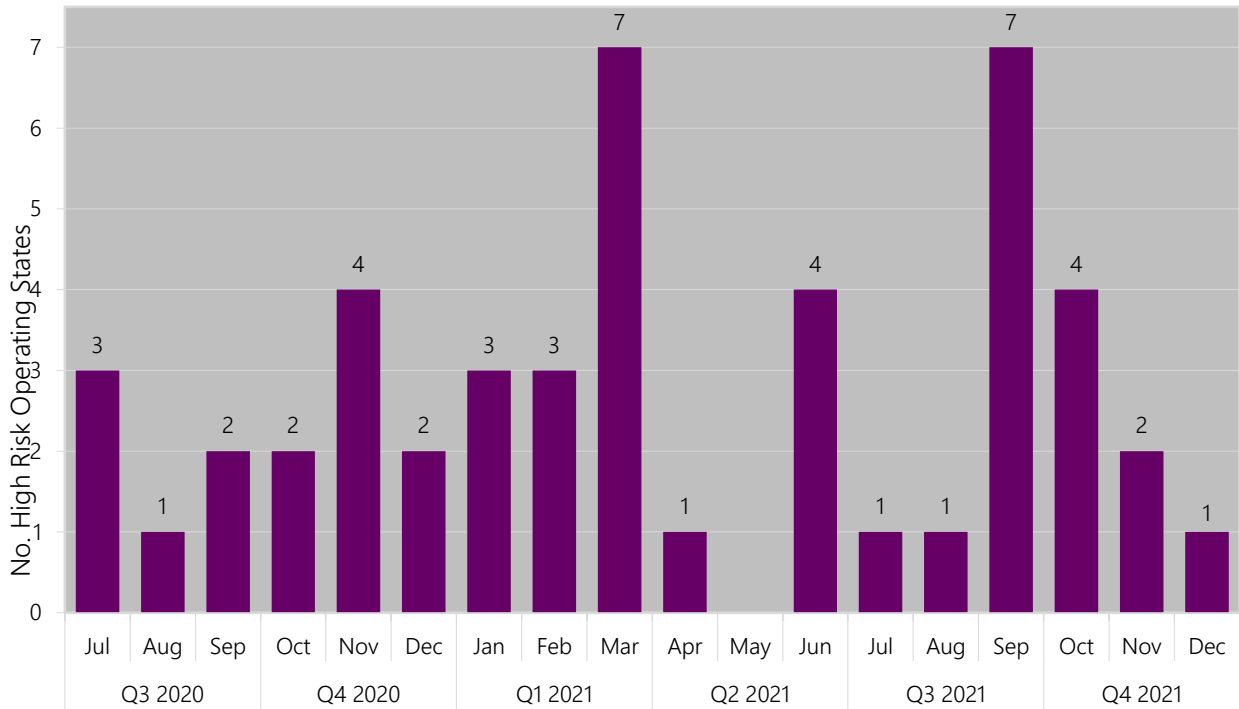
Details	High load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the PERTHENERGY_KWINANA_GT1 Facility up to a maximum of 110MW.
Date/Interval/s	From Trading Interval 19:2 on 26 Dec 2021 to Trading Interval 21:2 on 26 Dec 2021
Dispatch Advisory #	208561
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_GT Facility up to a maximum of 100MW.
Date/Interval/s	From Trading Interval 16:1 on 27 Dec 2021 to Trading Interval 16:2 on 27 Dec 2021
Dispatch Advisory #	208562
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_U2 Facility up to a maximum of 100MW.
Date/Interval/s	From Trading Interval 16:2 on 27 Dec 2021 to Trading Interval 20:1 on 27 Dec 2021
Dispatch Advisory #	208563
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_U2 Facility up to a maximum of 198MW.
Date/Interval/s	From Trading Interval 17:1 on 27 Dec 2021 to Trading Interval 20:2 on 27 Dec 2021
Dispatch Advisory #	208564
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the ALINTA_WGP_GT Facility up to a maximum of 198MW.
Date/Interval/s	From Trading Interval 18:1 on 27 Dec 2021 to Trading Interval 19:2 on 27 Dec 2021
Dispatch Advisory #	208565
Details	High Load conditions and to avoid a shortfall in Ancillary Service Requirements resulted in the need to constrain on the NAMKKN_MERR_SG1 Facility up to a maximum of 50MW.

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

6.1 High Risk Operating State

There were seven instances of a High Risk Operating State during the reporting period.

Figure 5: High Risk Operating States that have occurred since 1 July 2020.



Date/Interval/s	2 Oct 2021 / Trading Interval 9:1 to Trading Interval 20:2
Dispatch Advisory #	208337
Details	A Power System Security risk was identified in the Great Southern Region. In order to avoid the impact of a credible contingency event, a Planned Western Power Network outage on the MU-BUH81 line was recalled in order to maintain Power System Security and Reliability.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

Date/Interval/s	16 Oct 2021 / Trading Interval 18:2
Dispatch Advisory #	208391
Details	KWINANA_GT3 tripped at 18:45 on 16/10/2021 resulting in a loss of approximately 100MW and a frequency deviation to 49.66Hz. Frequency returned to a Normal Operating range within 1 minute of the unit tripping. No Out of Merit generation occurred.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

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Date/Interval/s	17 October 2021 / Trading Interval 12:2 to Trading Interval 14:1
Dispatch Advisory #	208392
Details	AEMO experienced IT issues affecting the operation of the Real Time Dispatch Engine.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

Date/Interval/s	28 Oct 2021 / Trading Interval 17:2
Dispatch Advisory #	208411
Details	NEWGEN_KWINANA_CCG1 tripped at 17:33 on 16/10/2021 resulting in a loss of approximately 240MW and a frequency deviation to 49.52Hz. Frequency returned to a Normal Operating range within 1 minute of the unit tripping. Some Out of Merit generation may have occurred.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

Date/Interval/s	2 Nov 2021 / Trading Interval 15:1
Dispatch Advisory #	208417
Details	NEWGEN_KWINANA_CCG1 tripped at 15:21 on 02/11/2021 resulting in a loss of approximately 210MW and a frequency deviation to 49.65Hz. Frequency returned to the Normal Operating range within 4 minutes of the unit tripping. No Out of Merit generation occurred.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

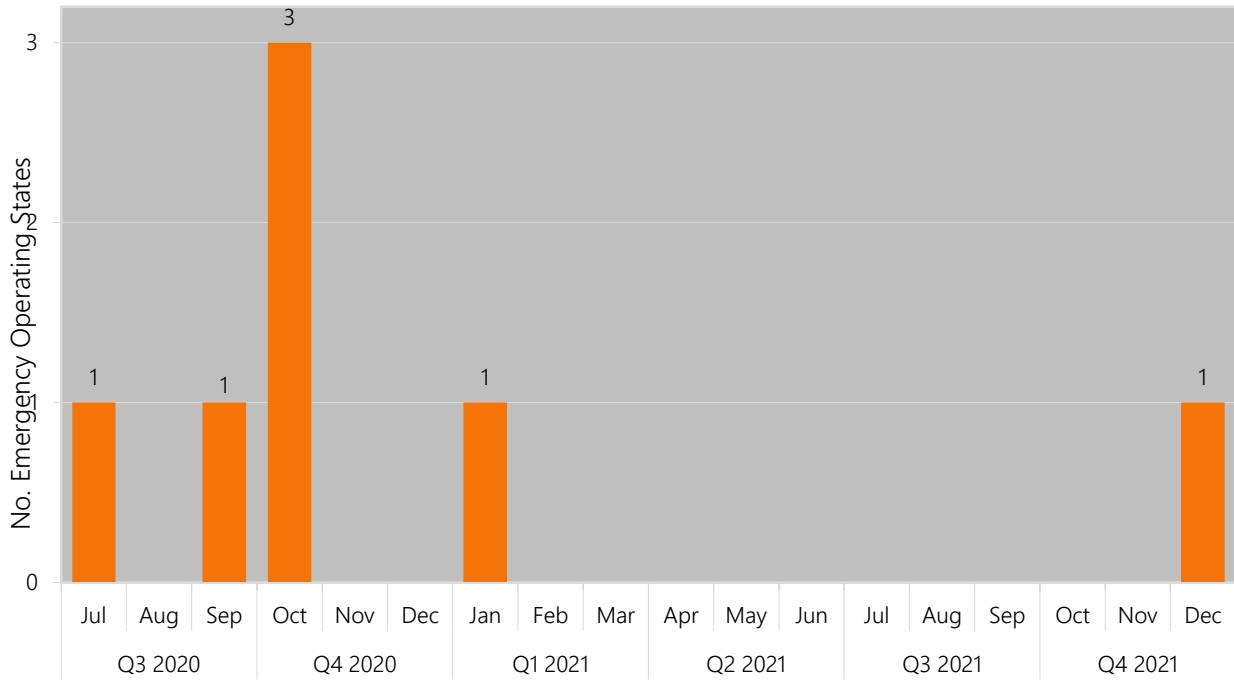
Date/Interval/s	20 Nov 2021 / Trading Interval 20:1 to Trading Interval 22:2
Dispatch Advisory #	208454
Details	AEMO experienced IT issues affecting the operation of the Real Time Dispatch Engine.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

Date/Interval/s	23 Dec 2021 / Trading Interval 21:1
Dispatch Advisory #	208554
Details	NEWGEN_KWINANA_CCG1 tripped at 21:06 on 23/12/2021 resulting in a loss of approximately 289MW. Frequency deviated to 49.51Hz and recovered to Normal Operating range within three minutes and 48 seconds of the unit tripping. Some Out of Merit generation may have occurred.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

6.2 Emergency Operating State

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

Figure 6: Emergency Operating States that have occurred since 1 July 2020.



Date/Interval/s	26 Dec 2021 / Trading Interval 17:1
Dispatch Advisory #	208559
Details	NEWGEN_NEERABUP_GT1 tripped resulting in a loss of approximately 328MW. Frequency deviated to 48.99Hz and recovered to Normal Operating range within five minutes and 20 seconds of the unit tripping. Some Out of Merit generation may have occurred.
AEMO Action	AEMO dispatched according to the latest BMO received to maintain Power System Security and Power System Reliability.

6.3 Shortfalls in Ancillary Services

During the reporting period there were 68 instances of a shortfall in Ancillary Services. A shortfall occurs when the Ancillary Service Requirements are not met within a Trading Interval.

Load Rejection Reserve Service (LRRS)

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 LRRS is 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.

During the reporting period, 22 instances related to shortfalls of LRRS⁴. The majority of shortfalls occurred during periods of high volatility of wind and rooftop PV systems. In these situations, maintaining the required level of Load Rejection Reserve is difficult, and maintaining Power System Security and Power System Reliability while minimising costs to the WEM often means no action is the best response. This is because by the time any action is taken to resolve the shortfall, Power System conditions are likely to have changed and the issue no longer exists. Further, the dynamic LRR includes safety factors which limits risks to the Power System for the duration.

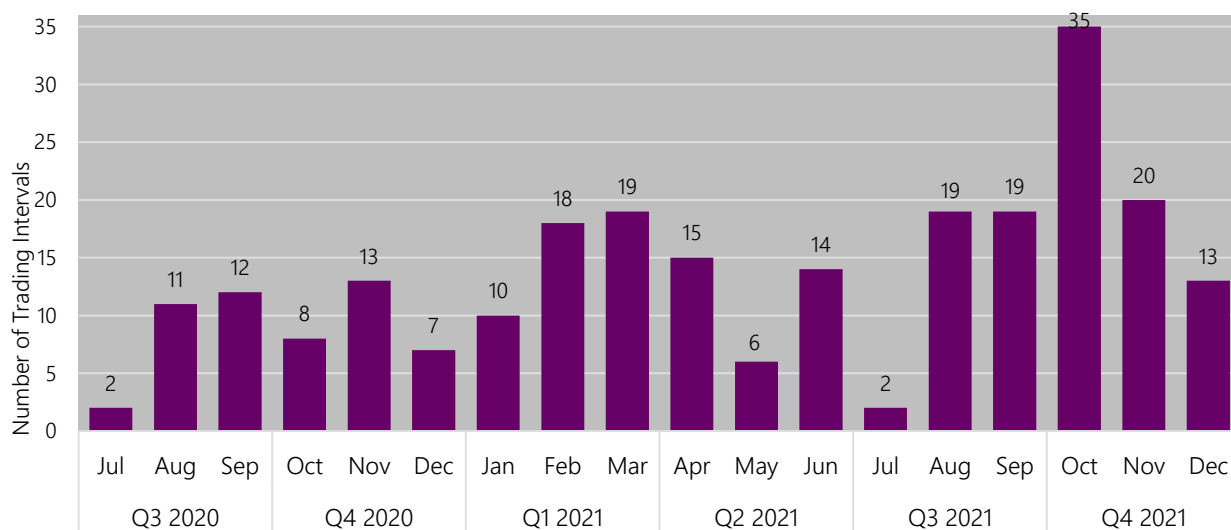
Load Following Ancillary Services (LFAS)

For every Trading Interval, System Management must activate each LFAS Facility for its full upward and downward LFAS Enablement to satisfy the LFAS Enablement Schedule. During the reporting period, 46 instances of LFAS Enablement shortfall (greater than 1 interval) were reported.

Spinning Reserve Ancillary Services (SRAS)

Spinning Reserve Service is the service of holding capacity associated with a synchronised Scheduled Generator or Interruptible Load in reserve, so that the relevant Facility is able to respond appropriately in situations outlined in clause 3.9.2 of the WEM Rules. During the reporting period, there were no instances relating to SRAS shortfall.

Figure 7: Shortfalls in Ancillary Services that have occurred since 1 July 2020⁵.



AEMO does not consider that any of the shortfalls placed the SWIS in a High Risk Operating State or an Emergency Operating state as defined under WEM Rule 3.4.1.

6.4 Involuntary curtailment of load

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

⁴ As outlined in [AEMO's Ancillary Services Report for the WEM 2021](#), AEMO has successfully conducted a Load Rejection Reserve (LRR) trial and has adopted a dynamic LRR for 2020-21 that incorporates physical aspects of the power system, including setting the upper limit of the LRR requirement based on the largest credible contingency in real time. Data is based on the number of Trading Intervals where Load Rejection Reserve was less than the dynamic requirement, averaged over a Trading Interval.

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

During the reporting period, there were eight instances where AEMO was required to use Load Following Ancillary Services (LFAS) Facilities outside of the LFAS Enablement Schedule to operate the SWIS in a reliable and safe manner under clause 7B.3.8 of the WEM Rules.

Date/Intervals	29 Oct 2021 / Trading Interval 9:1 to Trading Interval 11:1
Dispatch Advisory #	208413
Details	AEMO required backup LFAS due to ALINTA_PNJ_U2 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order due to an AGC failure.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

Date/Intervals	9 Nov 2021 / Trading Interval 13:2 to Trading Interval 20:1
Dispatch Advisory #	208425
Details	AEMO required backup LFAS due to ALINTA_PNJ_U1 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order due to a forced outage.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

Date/Intervals	12 Nov 2021 / Trading Interval 0:1 to Trading Interval 1:1
Dispatch Advisory #	208430
Details	AEMO required backup LFAS due to NEWGEN_KWINANA_CCG1 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order following an RTU Failure and loss of communications at the KW330 switchyard.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

Date/Intervals	12 Nov 2021 / Trading Interval 11:2 to Trading Interval 14:2
Dispatch Advisory #	208432
Details	AEMO required backup LFAS due to the NEWGEN_KWINANA_CCG1 Facility being unable to provide LFAS as per the LFAS Merit Order following a low load conditions constraint.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

Date/Intervals	12 Nov 2021 / Trading Interval 14:2 to Trading Interval 15:2
Dispatch Advisory #	208433
Details	AEMO required backup LFAS due to NEWGEN_KWINANA_CCG1 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order following a low load conditions constraint.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

STATUS REPORT

Date/Intervals	11 Dec 2021 / Trading Interval 21:1 to Trading Interval 5:1
Dispatch Advisory #	208511
Details	AEMO required backup LFAS due to NEWGEN_KWINANA_CCG1 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order due to a forced outage.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

Date/Intervals	15 Dec 2021 / Trading Interval 8:1 to Trading Interval 12:1
Dispatch Advisory #	208531
Details	AEMO required backup LFAS due to NEWGEN_KWINANA_CCG1 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order due to a forced outage.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.

Date/Intervals	23 Dec 2021 / Trading Interval 21:1 to Trading Interval 22:1
Dispatch Advisory #	208555
Details	AEMO required backup LFAS due to NEWGEN_KWINANA_CCG1 being unable to provide their cleared LFAS quantity as per the LFAS Merit Order due to a forced outage.
AEMO Action	AEMO was required to activate LFAS from the Backup LFAS Provider to maintain Power System Security and Power System Reliability.