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# NEM Event – Directions Report 20 to 27 December 2019

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**January 2021**

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# Important notice

## PURPOSE

Where the Australian Energy Market Operator (AEMO) intervenes in the National Electricity Market (NEM) through the use of directions, AEMO must publish a report in accordance with National Electricity Rules (NER) clauses 4.8.9(f) and 3.13.6A(a). This report satisfies those NER obligations and is based on information available to AEMO at 27 July 2020.

Unless otherwise indicated, terms in this report have the same meanings as those defined in the NER.

All references to time in this report are based on Australian Eastern Standard Time (AEST).

## Disclaimer

AEMO has made every reasonable effort to ensure the quality of the information in this report but cannot guarantee its accuracy or completeness. Any views expressed in this report are those of AEMO unless otherwise stated and may be based on information given to AEMO by other persons.

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## ABBREVIATIONS

Abbreviation	Expanded name
AEMO	Australian Energy Market Operator
DI	Dispatch Interval
MN	Market Notice
NEM	National Electricity Market
NER	National Electricity Rules
PS	Power Station
SA	South Australia
GT	Gas Turbine
ST	Steam Turbine
AEMC	Australian Energy Market Commission

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# 1. Summary

To ensure adequate system strength for secure operation of the South Australian power system, certain combinations of synchronous generating units must be in service at all times<sup>1</sup>.

Clause 4.8.9 of the National Electricity Rules (NER) allows AEMO to intervene in the market by issuing directions or clause 4.8.9 instructions, if AEMO is satisfied that it is necessary to maintain or re-establish the power system to a secure, satisfactory, or reliable operating state. Section 116 of the National Electricity Law allows AEMO to issue directions to take certain action if AEMO considers that it is necessary to maintain power system security or for reasons of public safety.

Between 20 and 27 December 2019, AEMO issued nine directions across two events to South Australian Market Participants to maintain power system security. These directions are summarised in Table 1.

**Table 1 Summary of the South Australia directions between 20 and 27 December 2019**

Direction	Directed Participant	Event No.	Issue time	Cancellation time	Direction instruction
Osbourne PS	Origin Energy Electricity Limited	1	1000 hrs, 21 December 2019	1530 hrs, 21 December 2019	Synchronise and follow dispatch targets from 1030 hrs, 21 December 2019
Pelican Point PS	Pelican Point Power Limited (ENGIE)	1	1900 hrs, 21 December 2019	1200 hrs, 22 December 2019	Synchronise and follow dispatch targets from 0300 hrs, 22 December 2019
Torrens Island PS A unit 1	AGL SA Generation Pty Ltd	1	1030 hrs, 21 December 2019	1050 hrs, 21 December 2019	Synchronise and follow dispatch targets from 1330 hrs, 21 December 2019
Torrens Island PS A unit 1	AGL SA Generation Pty Ltd	1	1215 hrs, 21 December 2019	1250 hrs, 21 December 2019	Synchronise and follow dispatch targets from 1430 hrs, 21 December 2019
Torrens Island PS A unit 2	AGL SA Generation Pty Ltd	1	1050 hrs, 21 December 2019	1215 hrs, 21 December 2019	Synchronise and follow dispatch targets from 1330 hrs, 21 December 2019
Torrens Island PS A unit 4	AGL SA Generation Pty Ltd	1	2200 hrs, 20 December 2019	1730 hrs, 21 December 2019	Synchronise and follow dispatch targets from 0030 hrs, 21 December 2019
Torrens Island PS B unit 2	AGL SA Generation Pty Ltd	1	2200 hrs, 20 December 2019	1730 hrs, 21 December 2019	Synchronise and follow dispatch targets from 0100 hrs, 21 December 2019
Torrens Island PS B unit 4	AGL SA Generation Pty Ltd	1	1045 hrs, 21 December 2019	1630 hrs, 22 December 2019	Synchronise and follow dispatch targets from 1100 hrs, 21 December 2019
Pelican Point PS	Pelican Point Power Limited (ENGIE)	2	1600 hrs, 26 December 2019	1200 hrs, 27 December 2019	Synchronise and follow dispatch targets from 0130 hrs, 27 December 2019

<sup>1</sup> AEMO Transfer Limit Advice – System Strength, available at [https://aemo.com.au/-/media/files/electricity/nem/security\\_and\\_reliability/congestion-information/transfer-limit-advice-system-strength.pdf?la=en](https://aemo.com.au/-/media/files/electricity/nem/security_and_reliability/congestion-information/transfer-limit-advice-system-strength.pdf?la=en).

# 2. Intervention assessment

## 2.1 The need for intervention

To ensure adequate system strength for secure operation of the South Australian power system, certain combinations of synchronous generating units must be in service at all times. If market conditions lead to market participants seeking to decommit synchronous generation AEMO is required to intervene to maintain the required level of synchronous units. The need for intervention, and options considered, were assessed against the set of viable plant combinations available at the time the directions were issued.

The requirement to intervene for the direction events in this report arose when the following bids were submitted:

**Table 2 Participant offers**

Event No.	Unit	Offer date	Bid
1	Torrens Island PS A unit 4	1041 hrs, 19 December 2019	Initial bid to de-commit from 0030 hrs, 21 December 2019 <sup>A</sup>
2	Pelican Point PS	1326 hrs, 26 December 2019	Rebid to de-commit from 0130 hrs, 27 December 2019 <sup>B</sup>

A. Initial bid: 1035~F~00 INITIAL BID~~

B. Rebid reason: 1320~F~REVISED TOLLING NOMINATION #1745~~

## 2.2 Assessment of market response and latest time to intervene

Under NER clause 4.8.5A(a) and (c), AEMO must notify the market of any anticipated power system security or reliability issue, and the latest time for market response before AEMO would need to intervene. For each of the direction events, AEMO issued this market notification as listed in Table 3.

AEMO contacted all participants who operate suitable generating units in South Australia to confirm their availability and the latest time to intervene. Those participants indicated that no market response would be provided but identified units that would be available if directed.

For each of the direction events, AEMO assessed the latest time to intervene taking account of the advised lead times. The latest times to intervene are listed in Table 3.

**Table 3 Summary of latest time to intervene**

Event No.	Latest time to respond	Market Notice
1	2200 hrs, 20 December 2019	MN 71942
2	1600 hrs, 26 December 2019	MN 72058

# 3. Intervention process

AEMO considers that it followed all applicable processes under NER clause 4.8 for the management of the directions between 20 and 27 December 2019<sup>2</sup>.

## 3.1 Adequacy of responses to AEMO inquiries

NER clause 4.8.5A(d) permits AEMO to request information from Scheduled Network Service Providers, Scheduled Generators, Semi-Scheduled Generators, and Market Customers.

AEMO is satisfied with the timeliness, adequacy, and effectiveness of all responses to its requests for information prior to issuing the directions between 20 and 27 December 2019.

## 3.2 Participant ability to comply with the intervention

NER clause 4.8.9(d) requires that a Registered Participant must immediately notify AEMO of its inability to comply, or intention not to comply, with a direction or clause 4.8.9 instruction.

AEMO is satisfied with all participants complying with the directions listed in Table 1.

# 4. Dispatch and pricing outcomes

## 4.1 Changes to dispatch outcomes due to the directions

The directions resulted in approximately 6,309 megawatt hours (MWh) of synchronous generation being directed into the market.

Under changes to the NER that commenced on 20 December 2019, intervention pricing, and therefore affected participant compensation, is not triggered by system strength directions<sup>3</sup>.

Under 3.8.1 of the NER, AEMO must operate a central dispatch process to balance power system supply and demand, using its reasonable endeavours to maintain power system security in accordance with Chapter 4 and the power system security standards. AEMO notes that in the absence of directions for system security, the central dispatch process would have produced an outcome which would have resulted in the operation of the power system in an insecure state and would therefore have been an infeasible dispatch solution.

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<sup>2</sup> AEMO. Power system operating procedure SO\_OP 3707, "Procedures For Issue Of Directions And Clause 4.8.9 Instructions", 06 September 2019, available at [https://aemo.com.au/-/media/files/electricity/nem/security\\_and\\_reliability/power\\_system\\_ops/procedures/so\\_op\\_3707-procedures-for-issue-of-directions-and-clause-4-8-9-instructions.pdf?la=en](https://aemo.com.au/-/media/files/electricity/nem/security_and_reliability/power_system_ops/procedures/so_op_3707-procedures-for-issue-of-directions-and-clause-4-8-9-instructions.pdf?la=en).

<sup>3</sup> See the AEMC's webpage for the package of rules to amend intervention pricing and compensation frameworks: <https://www.aemc.gov.au/news-centre/media-releases/package-rules-amend-intervention-pricing-and-compensation-frameworks>.

## 4.2 Application of intervention pricing

On 19 December 2019, the Australian Energy Market Commission made a final rule to amend a provision of the NER which determines whether AEMO should implement intervention pricing when it intervenes in the market<sup>4</sup>.

The rule makes clear that intervention pricing should not apply in circumstances where the reason for the intervention is to obtain a service that is not traded in the market, such as system services.

## 4.3 Direction costs

The compensation recovery costs for the direction between 20 and 27 December 2019 were \$650,194. Direction compensation recovery data can be found on the AEMO website<sup>5</sup>.

# 5. Conclusions and further actions

Between 20 and 27 December 2019, AEMO issued nine directions to South Australian Market Participants to maintain power system security, in response to a forecast lack of system strength in the region.

AEMO is satisfied that all applicable procedures and processes were followed in assessing the need for intervention, determining the latest time to intervene, enacting and managing the intervention and seeking market response from all generators capable of meeting the system strength requirements. The market was informed after each direction was issued.

AEMO is also satisfied with the timeliness and adequacy of participant responses and communication throughout.

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<sup>4</sup> AEMC rule change amending NER clause 3.9.3 : <https://www.aemc.gov.au/rule-changes/application-regional-reference-node-test-reliability-and-emergency-reserve-trader>.

<sup>5</sup> AEMO. Direction Compensation Recovery, available at <https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/data-nem/settlements-data/direction-compensation-recovery>.