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# NEM Event – Directions Report 29 February to 6 March 2020

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**February 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 1 September 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

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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 29 February and 6 March 2020, AEMO issued 14 directions across five 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 29 February and 6 March 2020**

Direction	Directed Participant	Event No.	Issue time	Cancellation time	Direction instruction
Pelican Point Gas Turbine (GT) 12 and Steam Turbine (ST) 18	Pelican Point Power Limited (ENGIE)	1	1700 hrs, 29 February 2020	1500 hrs, 1 March 2020	Remain synchronised and follow dispatch targets from 0800 hrs, 1 March 2020
Torrens Island PS B unit 4	AGL SA Generation Pty Ltd	1	2100 hrs, 29 February 2020	1830 hrs, 1 March 2020	Remain synchronised and follow dispatch targets from 0730 hrs, 1 March 2020
Torrens Island PS B unit 4	AGL SA Generation Pty Ltd	2	1845 hrs, 1 March 2020	1235 hrs, 2 March 2020	Remain synchronised and follow dispatch targets from 0800 hrs, 2 March 2020
Pelican Point GT 12 and ST 18	Pelican Point Power Limited (ENGIE)	2	2100 hrs, 1 March 2020	1240 hrs, 2 March 2020	Remain synchronised and follow dispatch targets from 0900 hrs, 2 March 2020
Torrens Island PS B unit 2	AGL SA Generation Pty Ltd	2	2210 hrs, 1 March 2020	1245 hrs, 2 March 2020	Remain synchronised and follow dispatch targets from 0100 hrs, 2 March 2020
Canunda WF	Canunda Power Pty Ltd	3	1225 hrs, 2 March 2020	2020 hrs, 2 March 2020	Remove all turbines from service from 1225 hrs, 2 March 2020
Mintaro PS	Synergen Power Pty Limited (ENGIE)	3	1248 hrs, 2 March 2020	1610 hrs, 2 March 2020	Synchronise and follow dispatch targets from 1250 hrs, 2 March 2020
Pelican Point GT 11	Pelican Point Power Limited (ENGIE)	3	1255 hrs, 2 March 2020	1645 hrs, 2 March 2020	Synchronise and follow dispatch targets from 1430 hrs, 2 March 2020
Lake Bonney WF 1, WF 2, WF 3	Lake Bonney Wind Power Pty Ltd	3	1345 hrs, 2 March 2020	2020 hrs, 2 March 2020	Remain off-line with all turbine / feeder circuit breakers open from 1345 hrs, 2 March 2020

<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).

Direction	Directed Participant	Event No.	Issue time	Cancellation time	Direction instruction
Wattle Point WF	AGL SA Generation Pty Ltd	3	1452 hrs, 2 March 2020	1650 hrs, 2 March 2020	Maintain 0 MW output from 1452 hrs, 2 March 2020
Starfish Hill WF	Starfish Hill Wind Farm Pty Ltd	3	1454 hrs, 2 March 2020	1645 hrs, 2 March 2020	Maintain 0 MW output from 1454 hrs, 2 March 2020
Pelican Point GT 11	Pelican Point Power Limited (ENGIE)	4	0000 hrs, 3 March 2020	1430 hrs, 3 March 2020	Remain synchronised and follow dispatch targets from 0530 hrs, 3 March 2020
Pelican Point GT 12 and ST 18	Pelican Point Power Limited (ENGIE)	4	0215 hrs, 3 March 2020	1500 hrs, 3 March 2020	Remain synchronised and follow dispatch targets from 0400 hrs, 3 March 2020
Torrens Island PS B unit 4	AGL SA Generation Pty Ltd	5	2100 hrs, 5 March 2020	0830 hrs, 6 March 2020	Remain synchronised and follow dispatch targets from 0900 hrs, 6 March 2020

## 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.

At 1200 hrs, 3 March 2020 South Australia separated from the rest of the NEM due to a circuit breaker tripping during a prior outage. The requirement to intervene for directions issued in Event 3 relates to this separation. The requirement to intervene for the other direction events in this report arose when the bids listed in Table 2 were submitted.

**Table 2 Participant offers**

Event No.	Unit	Offer date	Bid
1	Pelican Point PS	1345 hrs, 29 February 2020	Rebid to de-commit from 0800 hrs, 1 March 2020 <sup>A</sup>
2	Torrens Island PS B unit 2	1421 hrs, 29 February 2020	Rebid to de-commit from 0100 hrs, 2 March 2020 <sup>B</sup>
4	Pelican Point PS	1150 hrs, 2 March 2020	Initial bid to de-commit GT 12 from 0400 hrs, 3 March 2020 <sup>C</sup>
5	Torrens Island PS B unit 4	1106 hrs, 3 March 2020	Initial bid to remain offline from 0400 hrs, 6 March 2020 <sup>D</sup>

A. Rebid reason: 1325~F~REVISED TOLLING NOMINATION #1911~~

B. Rebid reason: 1231~F~001 PRIMARY RESPONSE TO D+1 PREDISPATCH~REDISTRIBUTE ACRO~

C. Initial bid: 1145~P~INITIAL OFFER~

D. Initial bid: 1104~F~00 INITIAL BID~

## 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	1700 hrs, 29 February 2020	MN 74558
2 and 3	1700 hrs, 1 March 2020	MN 74591 <sup>A</sup>
4	0000 hrs, 3 March 2020	MN 74664
5	2300 hrs, 5 March 2020	MN 74755

A. There was overlap between events 2 and 3. Event 3 has been represented individually due to a separation between SA and VIC.

# 3. Intervention process

AEMO considers that it followed all applicable processes under NER clause 4.8 for the management of the directions between 29 February and 6 March 2020<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 29 February and 6 March 2020.

## 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.

<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).

# 4. Dispatch and pricing outcomes

## 4.1 Changes to dispatch outcomes due to the directions

The directions resulted in approximately 6,858 megawatt hours (MWh) of synchronous generation being directed into the market.

Intervention pricing did not apply for these events.

Under clause 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 NER 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 unsecure state and would therefore have been an infeasible dispatch solution.

## 4.2 Direction costs

The compensation recovery costs for the directions between 29 February and 6 March 2020 were \$1,539,903. Direction compensation recovery data can be found on the AEMO website<sup>3</sup>.

# 5. Conclusions and further actions

Between 29 February and 6 March 2020, AEMO issued 14 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>3</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>.