



NEM Event – Directions Report 31 January to 17 February 2020

February 2021

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 19 December 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
GT	Gas Turbine
ST	Steam Turbine
MW	Megawatt
FCAS	Frequency control ancillary services
R6	6 second/Fast raise FCAS service
L6	6 second/Fast lower FCAS service

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1. Summary

At approximately 1324 hrs, 31 January 2020, a number of steel transmission towers on the Moorabool – Mortlake and Moorabool – Haunted Gully 500 kV lines (MLTS-MOPS and MLTS-HGTS lines) collapsed resulting in these lines tripping and remaining unavailable for service.

The outage of the MLTS-MOPS and MLTS-HGTS lines resulted in the separation of the South Australia region and part of Victoria from the rest of the National Electricity Market. This left generation at Mortlake Power Station, Macarthur Wind Farm, and Portland Wind Farm connected to the South Australia network. The Haunted Gully – Tarrone 500 kV line (HGTS-TRTS line) also tripped at the same time.

Coincident with the faults on the MLTS-MOPS and MLTS-HGTS lines, both potlines at the Alcoa Portland (APD) aluminium smelter tripped resulting in the loss of approximately 450 megawatts (MW) of load. The 500 kV lines remained out of service until 17 February 2020.

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 31 January and 17 February 2020, AEMO issued a series of directions across several events to Market Participants in South Australia, Victoria and New South Wales to maintain or re-establish the power system to a secure operating state, a satisfactory operating state, or a reliable operating state. These directions are summarised in Table 1, a detailed listing is included in Appendix 1.

Table 1 Summary of the South Australia directions between 31 January and 17 February 2020

Direction type	Number of directions	Aggregate hours under direction ^A
Variable renewable energy plant to reduce output ^B	23	2,423
Battery energy storage systems ^C	10	45
Mortlake PS	2	769
System strength	15	366
Frequency control ancillary services (FCAS)	10	93
Combined system strength and FCAS ^D	5	28
New South Wales generators ^E	4	9

A. Measured from direction effective time to cancellation. Aggregate of directed hours from individual directions.

B. Includes directions to semi-scheduled and non-scheduled units.

C. Concurrent directions to both load and generation sides counted as two directions.

D. Includes directions that started as system strength and changed to an FCAS direction at a later time.

E. Directions in New South Wales were concurrent with directions in South Australia and Victoria but are not directly attributable to the South Australia extended island event.

2. Intervention assessment

2.1 The need for intervention

The requirement to intervene for the directions in this report arose due to the separation of South Australia and part of Victoria from the rest of the NEM and prevailing market and system conditions. Those conditions included:

- Periods of low demand.
- Periods of high variable renewable energy generation.
- Lack of system strength forecast.
- Lack of FCAS availability forecast.
- Other specific network requirements to manage the South Australia extended island event.

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 foreseeable circumstance that may require AEMO to issue a direction, and the latest time for market response before AEMO would need to intervene. Due to the rapidly unfolding nature of the South Australia extended island event, it was not always feasible to issue market notices notifying of potential AEMO intervention. Appendix 1 indicates the directions issued without a market notice advising of a potential AEMO intervention event being published. Between 31 January and 17 February 2020, the market notices in Table 3 were issued to advise the market of possible intervention and the latest time to intervene.

Prior to issuing directions, AEMO contacted participants who operate suitable generating units 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.

Table 2 Summary of latest time to intervene

Market Notice	Latest time to respond	Reason
MN 73233	2100 hrs, 31 January 2020	System strength (SA)
MN 73245	0430 hrs, 1 February 2020	R6 FCAS (SA)
MN 73392	0000 hrs, 2 February 2020	System strength (SA)
MN 73398	2130 hrs, 1 February 2020	R6 and L6 FCAS (SA)
MN 73559	1945 hrs, 2 February 2020	System strength (SA)
MN 73562	1330 hrs, 3 February 2020	System strength (SA)

3. Intervention process

AEMO considers that it followed all applicable processes under NER clause 4.8 for the management of the directions between 31 January and 17 February 2020¹, other than the issuance market notices notifying of potential AEMO intervention as outlined in Section 2.2.

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 31 January and 17 February 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 did not receive any such notice from a Registered Participant in relation to any of the directions in this report.

AEMO is satisfied with all participants complying with direction instructions during the SA Separation event.

4. Dispatch and pricing outcomes

4.1 Changes to dispatch outcomes due to the directions

The directions resulted in synchronous generation being directed into the market in South Australia and Victoria. Table 3 provides a breakdown on a billing week basis

Table 3 Directed energy

Billing week	Additional directed energy (MWh)
5	8,745
6	120,971
7	80,163
8	18,787

¹ 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.

Under NER clause 3.8.1(b)(11)², AEMO must ensure that, as far as reasonably practicable, the number of participants affected by the intervention and the resulting changes to interconnector flows are minimised. AEMO considered the application of counter-action constraints to achieve this objective but concluded this was not practical during this intervention.

Tables 4 and 5 summarise the estimated change to dispatch outcomes resulting from the direction event. These are estimated by comparing against a dispatch scenario with the directions removed.

Directions in one region can cause dispatch changes to other regions. These changes are driven by economic co-optimisation within the market, and by the interplay between network constraint equations across multiple regions.

Table 4 Estimated changes to local generation in each region (MWh)

	QLD	NSW	VIC	SA	TAS
Without direction	565,565	624,702	404,756	89,425	47,607
Actual	564,960	624,783	405,140	89,981	47,543
Change	-605	81	384	556	-65

Table 5 Estimated changes to interconnector flow between regions (MWh)

	Terranora	QNI	VIC-NSW	Heywood ^C	Murraylink	Basslink
Without direction ^A	-2,346	-19,378	51,964	0	-7,066	-21,949
Actual	-2,192	-18,907	52,587	0	-7,542	-22,018
Change ^B	154 MWh less into NSW	471 MWh less into NSW	623 more into NSW	Nil	476 MWh more into VIC	69 MWh more into TAS

A. Positive numbers are for flows north or west, negative for flows south or east

B. Change = |Actual – Without direction|

C. Heywood was out of service for these events

4.2 Application of intervention pricing

Intervention pricing does 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.

AEMO declares intervention pricing for periods subject to an applicable AEMO intervention event. Under intervention pricing, NER clause 3.9.3(b) requires that AEMO set the dispatch price and ancillary service prices at the value which AEMO, in its reasonable opinion, considers would have applied had the intervention event not occurred. AEMO determines and publishes these prices in accordance with the Intervention Pricing Methodology.

During the South Australia extended island event AEMO issued a number of directions for market traded services, some of which met the region reference node test. Table 6 contains the periods when intervention pricing was active in dispatch, as a result of the South Australia extended island event, between 31 January and 17 February 2020.

² Removed under the Changes to intervention mechanisms rule change: <https://www.aemc.gov.au/rule-changes/changes-intervention-mechanisms>

Table 6 Intervention pricing application

Intervention pricing event	Intervention pricing start (DI ending)	Intervention pricing end
1	0455 hrs, 1 February 2020	0715 hrs, 1 February 2020
2	1005 hrs, 1 February 2020	2130 hrs, 1 February 2020
3	0330 hrs, 2 February 2020	0440 hrs, 2 February 2020
4	0510 hrs, 2 February 2020	1525 hrs, 4 February 2020

4.3 Direction costs

The compensation recovery costs for the direction between 31 January and 17 February 2020 are shown on a billing week basis in Table 7. AEMO has published details of the compensation recovery amounts arising from each relevant direction in accordance with 3.13.6A(b) on the AEMO website³.

Table 7 Direction compensation recovery amount

Billing week	Direction compensation recovery amount
5	\$ 1,801,058
6	\$ 14,546,709
7	\$ 6,535,017
8	\$ 1,570,962

5. Conclusions and further actions

Between 31 January and 17 February 2020, AEMO issued a series of directions across several events to Market Participants in South Australia, Victoria and New South Wales to maintain power system security and ensure reliability.

AEMO is satisfied that, other than the issue outlined in section 2.2, 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.

³ 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>.

A1. Appendix 1

Direction	Directed participant	Issue time	Direction instruction	Cancellation time
Canunda WFA	Canunda Power Pty Ltd	1355 hrs, 31 January 2020	Remove all turbines from service from 1355 hrs, 31 January 2020	1735 hrs, 17 February 2020
Portland WFA	Pacific Hydro Portland Wind Farm Pty Ltd	1409 hrs, 31 January 2020	Remove all turbines from service from 1409 hrs, 1 January 2020	1730 hrs, 17 February 2020
Pelican Point Gas Turbine (GT) 11 and Steam Turbine (ST) 18	Pelican Point Power Limited (ENGIE)	2100 hrs, 31 January 2020	Remain synchronised and follow dispatch targets from 0400 hrs, 1 February 2020	0710 hrs, 1 February 2020
Pelican Point GT 12 and ST 18	Pelican Point Power Limited (ENGIE)	2100 hrs, 31 January 2020	Remain synchronised and follow dispatch targets from 0430 hrs, 1 February 2020	0710 hrs, 1 February 2020
Pelican Point PS	Pelican Point Power Limited (ENGIE)	0440 hrs, 1 February 2020	Enable 35 MW of R6 from 0445 hrs, 1 February 2020	0710 hrs, 1 February 2020
Pelican Point GT 11 and St 18	Pelican Point Power Limited (ENGIE)	0900 hrs, 1 February 2020	Remain synchronised and follow dispatch targets from 1000 hrs, 1 February 2020	1630 hrs, 1 February 2020
Pelican Point GT 12 and ST 18	Pelican Point Power Limited (ENGIE)	0900 hrs, 1 February 2020	Remain synchronised and follow dispatch targets from 1000 hrs, 1 February 2020	1630 hrs, 1 February 2020
Pelican Point PS	Pelican Point Power Limited (ENGIE)	0900 hrs, 1 February 2020	Enable 35 MW of R6 from 1000 hrs, 1 February 2020	1630 hrs, 1 February 2020
Torrens Island PS B unit 3	AGL SA Generation Pty Ltd	1200 hrs, 1 February 2020	Remain synchronised, enable 15 MW R6, 30 MW R60 and follow dispatch targets from 1230 hrs, 1 February 2020	2100 hrs, 1 February 2020
Torrens Island PS A unit 1	AGL SA Generation Pty Ltd	1200 hrs, 1 February 2020	Remain synchronised, enable 10 MW R6 and follow dispatch targets from 1230 hrs, 1 February 2020	2100 hrs, 1 February 2020
Torrens Island PS A unit 4	AGL SA Generation Pty Ltd	1200 hrs, 1 February 2020	Remain synchronised, enable 10 MW R6 and follow dispatch targets from 1230 hrs, 1 February 2020	2100 hrs, 1 February 2020
Torrens Island PS A unit 2	AGL SA Generation Pty Ltd	1200 hrs, 1 February 2020	Remain synchronised, enable 10 MW R6 and follow dispatch targets from 1230 hrs, 1 February 2020	2130 hrs, 1 February 2020

Direction	Directed participant	Issue time	Direction instruction	Cancellation time
Lake Bonney WF 1, 2 and 3	Lake Bonney Wind Power Pty Ltd	1400 hrs, 1 February 2020	Remain off-line with all turbine / feeder circuit breakers open from 1400 hrs, 1 February 2020	1735 hrs, 17 February 2020
Macarthur WF	AGL Hydro Partnership	1430 hrs, 1 February 2020	Remain off-line with all turbine / feeder circuit breakers open from 1430 hrs, 1 February 2020	1715 hrs, 17 February 2020
Mortlake PS unit 11 ^A	Origin Energy Electricity Limited	1645 hrs, 1 February 2020	Remain synchronised and follow dispatch targets from 1645 hrs, 1 February 2020	1700 hrs, 17 February 2020
Mortlake PS unit 12 ^A	Origin Energy Electricity Limited	1645 hrs, 1 February 2020	Remain synchronised and follow dispatch targets from 1645 hrs, 1 February 2020	1700 hrs, 17 February 2020
Colongra PS unit 4 ^A	Snowy Hydro Limited	1715 hrs, 1 February 2020	Bid available and follow dispatch targets from 1715 hrs, 1 February 2020	1740 hrs, 1 February 2020
Colongra PS unit 1 ^A	Snowy Hydro Limited	1715 hrs, 1 February 2020	Bid available and follow dispatch targets from 1715 hrs, 1 February 2020	2000 hrs, 1 February 2020
Colongra PS unit 2 ^A	Snowy Hydro Limited	1715 hrs, 1 February 2020	Bid available and follow dispatch targets from 1715 hrs, 1 February 2020	2000 hrs, 1 February 2020
Colongra PS unit 3 ^A	Snowy Hydro Limited	1715 hrs, 1 February 2020	Bid available and follow dispatch targets from 1715 hrs, 1 February 2020	2000 hrs, 1 February 2020
Torrens Island PS A unit 2 ^B	AGL SA Generation Pty Ltd	2130 hrs, 1 February 2020	Synchronise, enable 10 MW R6, 10 MW L6, 25 MW L60 and follow dispatch targets from 0630 hrs, 2 February 2020	1630 hrs, 2 February 2020
Pelican Point GT 12 and ST 18 ^B	Pelican Point Power Limited (ENGIE)	0000 hrs, 2 February 2020	Remain synchronised, enable 17 MW R6, 17 MW L6, 15 MW L60 and follow dispatch targets from 0600 hrs, 2 February 2020	1900 hrs, 2 February 2020
Osbourne PS ^B	Origin Energy Electricity Limited	0010 hrs, 2 February 2020	Remain synchronised, enable 14 MW R6, 14 MW L6, 14 MW L60 and follow dispatch targets from 0930 hrs, 2 February 2020	0400 hrs, 6 February 2020
Quarantine PS unit 5	Origin Energy Electricity Limited	0315 hrs, 2 February 2020	Synchronise, enable 16 MW L6 and follow dispatch targets from 0315 hrs, 2 February 2020	0440 hrs, 2 February 2020
Torrens Island PS A unit 4	AGL SA Generation Pty Ltd	0420 hrs, 2 February 2020	Remain synchronised, enable 10 MW R6, 10 MW L6, 25 MW L60 and follow dispatch targets from 0800 hrs, 2 February 2020	1630 hrs, 2 February 2020
Torrens Island PS B unit 3	AGL SA Generation Pty Ltd	0420 hrs, 2 February 2020	Remain synchronised, enable 15 MW R6, 15 MW L6, 30 MW L60 and follow dispatch targets from 0830 hrs, 2 February 2020	1630 hrs, 2 February 2020
Dry Creek GT units 1, 2, and 3	Synergen Power Pty Limited (ENGIE)	0430 hrs, 2 February 2020	Synchronise and follow dispatch targets from 0440 hrs, 2 February 2020	0750 hrs, 2 February 2020

Direction	Directed participant	Issue time	Direction instruction	Cancellation time
Quarantine PS unit 5	Origin Energy Electricity Limited	0500 hrs, 2 February 2020	Synchronise, enable 16 MW L6 and follow dispatch targets from 0500 hrs, 2 February 2020	0000 hrs, 3 February 2020
Hornsdale Power Reserve (Generator)	Hornsdale Power Reserve Pty Ltd	1100 hrs, 2 February 2020	Hornsdale power reserve maintain between 45 and 55% of maximum charge, bid R6, R60, R5 to full availability and RREG to 0MW from 1100 hrs, 2 February 2020	1610 hrs, 2 February 2020
Hornsdale Power Reserve (Load)	Hornsdale Power Reserve Pty Ltd	1100 hrs, 2 February 2020	Hornsdale power reserve maintain between 45 and 55% of maximum charge, bid L6, L60, L5 to full availability and LREG to 0MW from 1100 hrs, 2 February 2020	1610 hrs, 2 February 2020
Wattle Point WF	AGL SA Generation Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all turbines/feeder circuit breakers open from 1100 hrs, 2 February 2020	1615 hrs, 2 February 2020
Starfish Hill WF	Starfish Hill Wind Farm Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all turbines/feeder circuit breakers open from 1100 hrs, 2 February 2020	1630 hrs, 2 February 2020
Cathedral Rocks WF	Cathedral Rocks Wind Farm Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all turbines/feeder circuit breakers open from 1100 hrs, 2 February 2020	1650 hrs, 2 February 2020
Mt Millar WF	Mt Millar Wind Farm Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all turbines/feeder circuit breakers open from 1100 hrs, 2 February 2020	1650 hrs, 2 February 2020
Bungala SF 1	Origin Energy Uranquinty Power Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all inverters disconnected from 1100 hrs, 2 February 2020	1700 hrs, 2 February 2020
Bungala SF 2	Origin Energy Uranquinty Power Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all inverters disconnected from 1100 hrs, 2 February 2020	1700 hrs, 2 February 2020
Tailem Bend SF	Vena Energy Services (Australia) Pty Ltd	1100 hrs, 2 February 2020	Remain offline with all inverters disconnected from 1100 hrs, 2 February 2020	2015 hrs, 2 February 2020
Dalrymple North BESS (Generator)	Greentricity Pty Ltd	1220 hrs, 2 February 2020	Dalrymple North battery to maintain between 45 and 55% of maximum charge, bid R6, R60, R5 to full availability and RREG to 0MW from 1220 hrs, 2 February 2020	1615 hrs, 2 February 2020
Dalrymple North BESS (Load)	Greentricity Pty Ltd	1220 hrs, 2 February 2020	Dalrymple North battery to maintain between 45 and 55% of maximum charge, bid L6, L60, L5 to full availability and LREG to 0MW from 1220 hrs, 2 February 2020	1615 hrs, 2 February 2020
Lake Bonney BESS (Generator)	Lake Bonney Wind Power Pty Ltd	1245 hrs, 2 February 2020	Lake Bonney battery to maintain between 45 and 55% of maximum charge, bid R6, R60, R5 to full availability and RREG to 0MW from 1245 hrs, 2 February 2020	1620 hrs, 2 February 2020

Direction	Directed participant	Issue time	Direction instruction	Cancellation time
Lake Bonney BESS (Load)	Lake Bonney Wind Power Pty Ltd	1245 hrs, 2 February 2020	Lake Bonney battery to maintain between 45 and 55% of maximum charge, bid L6, L60, L5 to full availability and LREG to 0MW from 1245 hrs, 2 February 2020	1620 hrs, 2 February 2020
Hornsedale WF 2	HWF 2 Pty Ltd	1325 hrs, 2 February 2020	Bid L60 and L5 to full availability from 1325 hrs, 2 February 2020	1610 hrs, 2 February 2020
Torrens Island PS A unit 2	AGL SA Generation Pty Ltd	1950 hrs, 2 February 2020	Remain synchronised and follow dispatch targets from 1950 hrs, 2 February 2020	1030 hrs, 3 February 2020
Pelican Point PS	Pelican Point Power Limited (ENGIE)	2222 hrs, 2 February 2020	Remain synchronised and follow dispatch targets from 2230 hrs, 2 February 2020	0230 hrs, 3 February 2020
Quarantine PS unit 5	Origin Energy Electricity Limited	1210 hrs, 3 February 2020	Synchronise, enable 16 MW L6 and follow dispatch targets from 1210 hrs, 3 February 2020	1410 hrs, 3 February 2020
Pelican Point PS	Pelican Point Power Limited (ENGIE)	1630 hrs, 3 February 2020	Remain synchronised and follow dispatch targets from 0030 hrs, 4 February 2020	1430 hrs, 4 February 2020
Lake Bonney BESS (Generator)	Lake Bonney Wind Power Pty Ltd	1030 hrs, 4 February 2020	Lake Bonney battery to maintain between 45 and 55% of maximum charge, bid R6, R60, R5 to full availability from 1030 hrs, 4 February 2020	1530 hrs, 4 February 2020
Lake Bonney BESS (Load)	Lake Bonney Wind Power Pty Ltd	1030 hrs, 4 February 2020	Lake Bonney battery to maintain between 45 and 55% of maximum charge, bid L6, L60, L5 to full availability from 1030 hrs, 4 February 2020	1530 hrs, 4 February 2020
Hornsedale Power Reserve (Generator)	Hornsedale Power Reserve Pty Ltd	1030 hrs, 4 February 2020	Hornsedale power reserve maintain between 45 and 55% of maximum charge, bid R6, R60, R5 to full availability from 1030 hrs, 4 February 2020	1530 hrs, 4 February 2020
Hornsedale Power Reserve (Load)	Hornsedale Power Reserve Pty Ltd	1030 hrs, 4 February 2020	Hornsedale power reserve maintain between 45 and 55% of maximum charge, bid L6, L60, L5 to full availability from 1030 hrs, 4 February 2020	1530 hrs, 4 February 2020
Torrens Island PS A unit 1	AGL SA Generation Pty Ltd	1030 hrs, 4 February 2020	Remain synchronised and follow dispatch targets from 1130 hrs, 4 February 2020	1630 hrs, 9 February 2020
Starfish Hill WF	Starfish Hill Wind Farm Pty Ltd	1240 hrs, 4 February 2020	Maintain 0 MW output from 1240 hrs, 4 February 2020	1600 hrs, 4 February 2020
Cathedral Rocks WF	Cathedral Rocks Wind Farm Pty Ltd	1320 hrs, 4 February 2020	Maintain 0 MW output from 1320 hrs, 4 February 2020	1610 hrs, 4 February 2020
Mt Millar WF	Mt Millar Wind Farm Pty Ltd	1450 hrs, 4 February 2020	Maintain 0 MW output from 1450 hrs, 4 February 2020	1610 hrs, 4 February 2020
Pelican Point GT12 and ST18	Pelican Point Power	1630 hrs, 4 February 2020	Remain synchronised and follow dispatch targets from 0900 hrs, 5 February 2020	1200 hrs, 5 February 2020

Direction	Directed participant	Issue time	Direction instruction	Cancellation time
	Limited (ENGIE)			
Starfish Hill WF	Starfish Hill Wind Farm Pty Ltd	1055 hrs, 5 February 2020	Maintain 0 MW output from 1055 hrs, 5 February 2020	1445 hrs, 5 February 2020
Cathedral Rocks WF	Cathedral Rocks Wind Farm Pty Ltd	1230 hrs, 5 February 2020	Maintain 0 MW output from 1230 hrs, 5 February 2020	1500 hrs, 5 February 2020
Mt Millar WF	Mt Millar Wind Farm Pty Ltd	1235 hrs, 5 February 2020	Maintain 0 MW output from 1235 hrs, 5 February 2020	1510 hrs, 5 February 2020
Osbourne PS	Origin Energy Electricity Limited	1730 hrs, 5 February 2020	Remain synchronised and follow dispatch targets from 0830 hrs, 6 February 2020	0730 hrs, 8 February 2020
Torrens Island PS A unit 2	AGL SA Generation Pty Ltd	1315 hrs, 7 February 2020	Synchronise and follow dispatch targets from 0430 hrs, 8 February 2020	1630 hrs, 9 February 2020
Pelican Point GT12 and ST18	Pelican Point Power Limited (ENGIE)	1630 hrs, 8 February 2020	Remain synchronised and follow dispatch targets from 0800 hrs, 9 February 2020	1400 hrs, 9 February 2020
Wattle Point WF	AGL SA Generation Pty Ltd	1140 hrs, 16 February 2020	Maintain 0 MW output from 1140 hrs, 16 February 2020	1520 hrs, 16 February 2020
Starfish Hill WF	Starfish Hill Wind Farm Pty Ltd	1150 hrs, 16 February 2020	Maintain 0 MW output from 1150 hrs, 16 February 2020	1525 hrs, 16 February 2020
Mt Millar WF	Mt Millar Wind Farm Pty Ltd	1155 hrs, 16 February 2020	Maintain 0 MW output from 1155 hrs, 16 February 2020	1525 hrs, 16 February 2020
Cathedral Rocks WF	Cathedral Rocks Wind Farm Pty Ltd	1205 hrs, 16 February 2020	Maintain 0 MW output from 1205 hrs, 16 February 2020	1528 hrs, 16 February 2020

- A. Direction issued prior to or without the issuance of a market notice advising of a possible intervention in the region
B. The direction instructions changed over the period the direction was active