



# NEM Event – Direction 21 July to 2 August 2018

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**May 2019**

# 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) clause 4.8.9(f) and 3.13.6A(a). This report satisfies those NER obligations, and is based on information available to AEMO at 02 May 2019.

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).

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## ABBREVIATIONS

Abbreviation	Expanded name
AEMO	Australian Energy Market Operator
AEST	Australian Eastern Standard Time
DI	Dispatch Interval
MN	Market Notice
NEM	National Electricity Market
NER	National Electricity Rules
PS	Power Station
SA	South Australia

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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 21 July and 2 August 2018, AEMO issued nine directions to South Australian Market Participants to maintain power system security. These six directions events are summarised in Table 1.

Table 1 **Summary of the nine South Australia directions between 21 July and 2 August 2018**

Direction	Directed Participant	Event No.	Issue time	Cancellation time	Direction instruction
Pelican Point Gas Turbine (GT) 11	Pelican Point Power Pty Ltd (ENGIE)	1	1630 hrs, 21 July 2018	1530 hrs, 22 July 2018	Remain synchronised and follow dispatch targets from 0230 hrs on 22 July 2018.
Torrens Island B unit 4	AGL SA Generation Pty Ltd	1	2030 hrs, 21 July 2018	1530 hrs, 22 July 2018	Remain synchronised and follow dispatch targets from 0100 hrs on 22 July 2018.
Pelican Point GT 12	ENGIE	2	2000 hrs, 23 July 2018	0600 hrs, 24 July 2018	Remain synchronised and follow dispatch targets from 0100 hrs on 24 July 2018.
Torrens Island A unit 2	AGL SA Generation Pty Ltd	3	1930 hrs, 28 July 2018	1600 hrs, 29 July 2018	Remain synchronised and follow dispatch targets from 2100 hrs on 28 July 2018.
Torrens Island B unit 1	AGL SA Generation Pty Ltd	3	1930 hrs, 28 July 2018	1530 hrs, 29 July 2018	Remain synchronised and follow dispatch targets from 2130 hrs on 28 July 2018.
Osborne Power Station (PS)	Origin Energy Electricity Ltd	4	1130 hrs, 30 July 2018	1630 hrs, 30 July 2018	Remain synchronised and follow dispatch targets from 1230 hrs on 30 July 2018.
Osborne PS	Origin Energy Electricity Ltd	5	1830 hrs, 30 July 2018	0730 hrs, 31 July 2018	Remain synchronised and follow dispatch targets from 2130 hrs on 30 July 2018.
Torrens Island A unit 2	AGL SA Generation Pty Ltd	6	1800 hrs, 01 August 2018	0530 hrs, 2 August 2018	Remain synchronised and follow dispatch targets from 2230 hrs on 1 August 2018.
Torrens Island B unit 4	AGL SA Generation Pty Ltd	6	1800 hrs, 01 August 2018	2000 hrs, 2 August 2018	Remain synchronised and follow dispatch targets from 0100 hrs on 2 August 2018.

<sup>1</sup> See <http://www.aemo.com.au/Media-Centre/South-Australia-System-Strength-Assessment>.

# 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. AEMO continues to investigate system strength requirements in South Australia, and updates the set of viable combinations on a regular basis. The need for intervention, and options considered, were assessed against the set of viable combinations available from 12 July 2018 for each of the direction events.

For each of the directions, the need for intervention arose due to rebids submitted by AGL SA Generation Pty Ltd, ENGIE, and Origin Energy Electricity Ltd to de-commit their respective units:

1. AGL submitted an initial bid at 1925 hrs on 18 July 2018 to de-commit Torrens Island B unit 4 from 0100 hrs on 22 July 2018<sup>2</sup>.
2. ENGIE submitted a rebid at 1254 hrs on 20 July 2018 to de-commit a Pelican Point GT from 0100 hrs on 22 July 2018<sup>3</sup>, followed by a rebid at 1347 hrs on 20 July 2018 to de-commit the remaining Pelican Point GT from 0230 hrs on 22 July 2018<sup>4</sup>.
3. ENGIE submitted a rebid at 1351 hrs on 22 July 2018 to de-commit Pelican Point Power Station (PS) from 0100 hrs on 24 July 2018<sup>5</sup>.
4. AGL submitted rebids at 1526 hrs on 28 July 2018 to de-commit Torrens Island A unit 2 and Torrens Island B unit 1 from 2100 hrs on 28 July 2018 and 2130 hrs on 28 July 2018, respectively<sup>6</sup>.
5. Origin submitted a rebid at 1045 hrs on 30 July 2018 to de-commit Osborne PS from 1230 hrs on 30 July 2018<sup>7</sup>.
6. Origin submitted a rebid at 1522 hrs on 30 July 2018 to de-commit Osborne PS from 2130 hrs on 30 July 2018<sup>8</sup>.
7. AGL submitted a rebid at 1405 hrs on 31 July 2018 to de-commit Torrens Island A unit 2 from 2230 hrs on 1 August 2018<sup>9</sup>.
8. AGL submitted a rebid at 1359 hrs on 1 August 2018 to de-commit Torrens Island B unit 4 from 0100 hrs on 2 August 2018<sup>10</sup>.

As a result, AEMO determined that there would be insufficient online synchronous units available to meet system strength requirements following these de-commitments and assessed all available options before directing.

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<sup>2</sup> Rebid reason: 1920~F~00 INITIAL BID~

<sup>3</sup> Rebid reason: 1250~A~RESPOND TO PREDISPATCH D+1~

<sup>4</sup> Rebid reason: 1345~F~REVISED TOLLING NOMINATION~

<sup>5</sup> Rebid reason: 1345~A~RESPOND TO PREDISPATCH D+1~

<sup>6</sup> Rebid reason: 1431~A~050 CHG IN AEMO PD~54 PD PRICE DECREAE -\$1029 [2230]

<sup>7</sup> Rebid reason: 1044A CONSTRAINT MANAGEMENT – S::V\_TBSE\_TBSE\_2 SL SL

<sup>8</sup> Rebid reason: 1516A CONSTRAINT MANAGEMENT – V::S\_SETB\_MAXG\_2 SL

<sup>9</sup> Rebid reason: 1230~A~040 CHG IN AEMO DISP~RESPOSE TO D+1/SL

<sup>10</sup> Rebid reason: 1231~P~050 CHG IN UNIT OPERATION~CHANGE D+1 COMMITMENT

## 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 2.

AEMO contacted all participants who operate suitable synchronous generating units in South Australia to confirm their availability and the latest time to intervene. Those participants indicated they did not intend to adjust their market offers, but identified units that would be available if directed.

For each of the five 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 2.

## 2.3 Decision to intervene

As all participants contacted had indicated that no market response would be provided, AEMO evaluated the estimated costs, and issued directions to AGL SA Generation Pty Ltd (Torrens Island A unit 2 and Torrens Island B units 1 and 4), ENGIE (Pelican Point GTs 11 and 12), and Origin Energy Electricity Ltd (Osborne PS) for their respective units to remain synchronised and follow dispatch targets. AEMO cancelled the directions when relevant synchronous generating units rebid into the market.

# 3. Intervention process

AEMO considers that it followed all applicable processes under NER Clause 4.8 for the management of the directions between 21 July to 2 August 2018<sup>11</sup>. Table 2 provides a high-level timeline of the intervention event.

Table 2 **Timeline of key events between 21 July and 2 August 2018**

Time	Events / comments
<b>18 July 2018</b>	
1925 hrs	AGL SA Generation Pty Ltd submitted an initial bid to de-commit Torrens Island B unit 4 from 0100 hrs on 22 July 2018.
<b>20 July 2018</b>	
1254 hrs	ENGIE submitted a rebid to de-commit a Pelican Point GT from 0100 hrs on 22 July 2018.
1347 hrs	ENGIE submitted a rebid to de-commit the remaining Pelican Point GT from 0230 hrs on 22 July 2018.
<b>21 July 2018</b>	
1345 hrs	AEMO published a market notice seeking a market response and noting the latest time to intervene was at 2030 hrs on 21 July 2018 (MN 63545). The latest time to intervene was updated to 1630 hrs on 21 July 2018 (MN 63546).
1630 hrs	<ul style="list-style-type: none"> <li>Direction issued to ENGIE for Pelican Point GT 11 to remain synchronised and follow dispatch targets from 0230 hrs on 22 July 2018 (PPCCGT direction 1).</li> <li>AEMO published MN 63548 declaring a direction was issued to a South Australian participant.</li> <li>AEMO published MN 63549 declaring that an AEMO intervention event had commenced from dispatch interval (DI) ending 1635 hrs and that all dispatch intervals during the AEMO intervention event would be intervention price DIs.</li> <li>Intervention constraints applied to Pelican Point PS in central dispatch from dispatch interval (DI) ending 0235 hrs on 22 July 2018.</li> </ul>
2030 hrs	<ul style="list-style-type: none"> <li>Direction issued to AGL SA Generation Pty Ltd for Torrens Island B unit 4 to remain synchronised and follow dispatch targets from 0100 hrs on 22 July 2018 (TORRB4 direction event no. 1).</li> </ul>

<sup>11</sup> AEMO. Power system operating procedure SO\_OP 3707, "Intervention, direction and clause 4.8.9 instructions", 11 September 2014, available at [http://aemo.com.au/-/media/Files/Electricity/NEM/Security\\_and\\_Reliability/Power\\_System\\_Ops/Procedures/SO\\_OP\\_3707---Intervention-Direction-and-Clause-4-8-9-Instructions.pdf](http://aemo.com.au/-/media/Files/Electricity/NEM/Security_and_Reliability/Power_System_Ops/Procedures/SO_OP_3707---Intervention-Direction-and-Clause-4-8-9-Instructions.pdf).

Time	Events / comments
	<ul style="list-style-type: none"> <li>Intervention constraints applied to Torrens Island B unit 4 in central dispatch from DI ending 0105 hrs on 22 July 2018.</li> </ul>
22 July 2018	
1351 hrs	ENGIE submitted a rebid to de-commit Pelican Point PS from 0100 hrs on 24 July 2018.
1530 hrs	<ul style="list-style-type: none"> <li>The directions to Pelican Point GT 11 (PPCCGT direction event no. 1) and Torrens Island B unit 4 (TORRB4 direction event no. 1) were cancelled and intervention constraints were revoked.</li> <li>AEMO published MN 63556 declaring the cancellation of the direction.</li> </ul>
23 July 2018	
1423 hrs	AEMO published a market notice seeking a market response and noting the latest time to intervene was at 1930 hrs on 23 July 2018 (MN 63568). The latest time to intervene was updated to 2000 hrs on 23 July 2018 (MN 63570).
2000 hrs	<ul style="list-style-type: none"> <li>Direction issued to ENGIE for Pelican Point GT 12 to remain synchronised and follow dispatch targets from 0100 hrs on 24 July 2018 (PPCCGT direction event no. 2).</li> <li>AEMO published MN 63572 declaring a direction was issued to a South Australian participant.</li> <li>AEMO published MN 63573 declaring that an AEMO intervention event had commenced from DI ending 2005 hrs and that all dispatch intervals during the AEMO intervention event would be intervention price DIs.</li> <li>Intervention constraints applied to Pelican Point PS in central dispatch from DI ending 0105 hrs on 24 July 2018.</li> </ul>
24 July 2018	
0600 hrs	<ul style="list-style-type: none"> <li>The direction to Pelican Point GT 12 (PPCCGT direction event no. 2) was cancelled and intervention constraints were revoked.</li> <li>AEMO published MN 63576 declaring the cancellation of the direction.</li> </ul>
28 July 2018	
1526 hrs	AGL SA Generation Pty Ltd submitted rebids to de-commit Torrens Island A unit 2 and Torrens Island B unit 1 from 2100 hrs on 28 July 2018 and 2130 hrs on 28 July 2018, respectively.
1634 hrs	AEMO published a market notice seeking a market response and noting the latest time to intervene was at 1930 hrs on 28 July 2018 (MN 63606).
1930 hrs	<ul style="list-style-type: none"> <li>Direction issued to AGL SA Generation Pty Ltd for Torrens Island A unit 2 to remain synchronised and follow dispatch targets from 2100 hrs on 28 July 2018 (TORRA2 direction event no. 3).</li> <li>Direction issued to AGL SA Generation Pty Ltd for Torrens Island B unit 1 to remain synchronised and follow dispatch targets from 2130 hrs on 28 July 2018.</li> <li>AEMO published MN 63609 declaring a direction was issued to a South Australian participant.</li> <li>AEMO published MN 63610 declaring that an AEMO intervention event had commenced from DI ending 1930 hrs and that all dispatch intervals during the AEMO intervention event would be intervention price DIs.</li> <li>Intervention constraints applied to Torrens Island A unit 2 in central dispatch from DI ending 2105 hrs on 28 July 2018.</li> <li>Intervention constraints applied to Torrens Island B unit 1 in central dispatch from DI ending 2135 hrs on 28 July 2018.</li> </ul>
29 July 2018	
1530 hrs	<ul style="list-style-type: none"> <li>The direction to Torrens Island B unit 1 was cancelled and intervention constraints were revoked.</li> </ul>
1600 hrs	<ul style="list-style-type: none"> <li>The direction to Torrens Island A unit 2 (TORRA2 direction event no. 3) was cancelled and intervention constraints were revoked.</li> <li>AEMO published MN 63641 declaring the cancellation of the direction.</li> </ul>
30 July 2018	
1045 hrs	Origin Energy Electricity Ltd submitted a rebid to de-commit Osborne PS from 1230 hrs on 30 July 2018.
1116 hrs	AEMO published a market notice seeking a market response and noting the latest time to intervene was at 1130 hrs on 30 July 2018 (MN 63645).
1130 hrs	<ul style="list-style-type: none"> <li>Direction issued to Origin Energy Electricity Ltd for Osborne PS to remain synchronised and follow dispatch targets from 1230 hrs on 30 July 2018 (OSB-AG direction event no. 4).</li> <li>AEMO published MN 63647 declaring a direction was issued to a South Australian participant.</li> <li>AEMO published MN 63648 declaring that an AEMO intervention event had commenced from DI ending 1135 hrs and that all dispatch intervals during the AEMO intervention event would be intervention price DIs.</li> <li>Intervention constraints applied to Osborne PS in central dispatch from DI ending 1235 hrs on 30 July 2018.</li> </ul>
1630 hrs	<ul style="list-style-type: none"> <li>The direction to Osborne PS (OSB-AG direction event no. 4) was cancelled and intervention constraints were revoked.</li> </ul>

Time	Events / comments
	<ul style="list-style-type: none"> <li>AEMO published MN 63652 declaring the cancellation of the direction.</li> </ul>
1522 hrs	Origin Energy Electricity Ltd submitted a rebid to de-commit Osborne PS from 2130 hrs on 30 July 2018.
1604 hrs	AEMO published a market notice seeking a market response and noting the latest time to intervene was at 1830 hrs on 30 July 2018 (MN 63650).
1830 hrs	<ul style="list-style-type: none"> <li>Direction issued to Origin Energy Electricity Ltd for Osborne PS to remain synchronised and follow dispatch targets from 2130 hrs on 30 July 2018 (OSB-AG direction event no. 5).</li> <li>AEMO published MN 63654 declaring a direction was issued to a South Australian participant.</li> <li>AEMO published MN 63655 declaring that an AEMO intervention event had commenced from DI ending 1835 hrs and that all dispatch intervals during the AEMO intervention event would be intervention price DIs.</li> <li>Intervention constraints applied to Osborne PS in central dispatch from DI ending 2135 hrs on 30 July 2018.</li> </ul>
31 July 2018	
0730 hrs	<ul style="list-style-type: none"> <li>The direction to Osborne PS (OSB-AG direction event no. 5) was cancelled and intervention constraints were revoked.</li> <li>AEMO published MN 63662 declaring the cancellation of the direction.</li> </ul>
1405 hrs	AGL SA Generation Pty Ltd submitted a rebid to de-commit Torrens Island A unit 2 from 2230 hrs on 1 August 2018.
1 August 2018	
1359 hrs	AGL SA Generation Pty Ltd submitted a rebid to de-commit Torrens Island B unit 4 from 0100 hrs on 2 August 2018.
1401 hrs	AEMO published a market notice seeking a market response and noting the latest time to intervene was at 1500 hrs on 1 August 2018 (MN 63688). The latest time to intervene was updated to 1800 hrs on 1 August 2018 (MN 63689).
1800 hrs	<ul style="list-style-type: none"> <li>Direction issued to AGL SA Generation Pty Ltd for Torrens Island A unit 2 to remain synchronised and follow dispatch targets from 2230 hrs on 1 August 2018 (TORRA2 direction event no. 6).</li> <li>Direction issued to AGL SA Generation Pty Ltd for Torrens Island B unit 4 to remain synchronised and follow dispatch targets from 0100 hrs on 2 August 2018 (TORRB4 direction event no. 6).</li> <li>AEMO published MN 63692 declaring a direction was issued to a South Australian participant.</li> <li>AEMO published MN 63693 declaring that an AEMO intervention event had commenced from DI ending 1800 hrs and that all dispatch intervals during the AEMO intervention event would be intervention price DIs.</li> <li>Intervention constraints applied to Torrens Island A unit 2 in central dispatch from DI ending 2235 hrs on 1 August 2018.</li> <li>Intervention constraints applied to Torrens Island B unit 4 in central dispatch from DI ending 0105 hrs on 2 August 2018.</li> </ul>
2 August 2018	
0530 hrs	<ul style="list-style-type: none"> <li>The direction to Torrens Island A unit 2 (TORRA2 direction event no. 6) was cancelled and intervention constraints were revoked.</li> </ul>
2000 hrs	<ul style="list-style-type: none"> <li>The direction to Torrens Island B unit 4 (TORRB4 direction event no. 6) was cancelled and intervention constraints were revoked.</li> <li>AEMO published MN 63709 declaring the cancellation of the direction.</li> </ul>

### 3.1 Adequacy of responses to AEMO inquiries

NER 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 from AGL, Origin, and ENGIE for information prior to issuing the directions between 21 July and 2 August 2018.

### 3.2 Participant ability to comply with the intervention

NER 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 indication that a Registered Participant would be unable to comply with the direction. AEMO is satisfied with AGL, ENGIE and Origin 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 to Pelican Point PS, Torrens Island A, Torrens Island B, and Osborne PS resulted in approximately 7,810 megawatt hours (MWh) of generation being added to the market.

Under NER 3.8.1(b)(11), 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<sup>12</sup>. AEMO considered the application of counter-action constraints to achieve this objective, but concluded this was not practical during this intervention.

Tables 3 and 4 summarise the estimated change to dispatch outcomes resulting from all six directions. These are estimated by comparing against a simulated dispatch with the direction removed.

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

Of note is that while these directions displaced market-based generation in South Australia, they also decreased imports into South Australia. The decreased imports, coupled with an impact on network constraints, resulted in displacement of generation in other NEM regions.

Table 3 **Estimated changes to local generation in each region (MWh)**

	QLD	NSW	VIC	SA	TAS
Without direction	456,988	494,714	375,559	96,417	121,384
Actual	455,104	492,097	374,597	96,449 + 7,810 <sup>A</sup>	119,982
Change	-1,885	-2,616	-962	7,842	-1,492

A. 7,810 MWh is the directed energy.

Table 4 **Estimated changes to interconnector flow between regions (MWh)**

	Terranora	QNI	VIC-NSW	Heywood	Murraylink	Basslink
Without direction <sup>A</sup>	-3,799	-31,129	57,785	-9,918	189	29,254
Actual <sup>A</sup>	-3,623	-29,463	62,359	-11,415	-5,892	27,856
Change <sup>B</sup>	177 MWh less into NSW	1,667 MWh less into NSW	4,574 MWh more into NSW	1,497 MWh more into VIC	6,081 MWh more into VIC	1,398 MWh less into VIC

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

B. Change = |Actual - Without direction|.

## 4.2 Application of intervention pricing

AEMO declares intervention pricing for periods subject to an AEMO intervention event. Under intervention pricing, NER 3.9.3(b) requires that AEMO set the dispatch price and ancillary service prices at the value which

<sup>12</sup> AEMO's power system operating procedure SO\_OP 3707 "Intervention, Direction and Clause 4.8.9 Instructions" describes this objective. In practice, AEMO meets the objective by selecting generating units located in the same region as the directed generation (and, if possible, belonging to the same participant) and then constraining the dispatch of the selected generating units by an equal and opposite amount to that of the directed generating units.

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<sup>13</sup>.

Intervention pricing applies whenever the direction meets the regional reference node test, that is a direction hypothetically given to a plant at the regional reference node would have avoided the need for the direction.

AEMO's transfer limit advice on South Australia System Strength provides a number of feasible combinations of generating units that provide the needed level of system strength. All combinations of plant in the limit advice could be fully substituted by directing at the regional reference node (Torrens Island) in the current system strength scenarios. Accordingly, system strength directions in South Australia pass the regional reference node test and intervention pricing is appropriate.

Intervention pricing was applied for this event in accordance with NER 3.9.3(b), and for the full intervention period from:

- DI ending 1635 hrs on 21 July 2018 until DI ending 1530 hrs on 22 July 2018.
- DI ending 2005 hrs on 23 July 2018 until DI ending 0600 hrs on 24 July 2018.
- DI ending 1935 hrs on 28 July 2018 until DI ending 1600 hrs on 29 July 2018.
- DI ending 1135 hrs on 30 July 2018 until DI ending 1630 hrs on 30 July 2018.
- DI ending 1835 hrs on 30 July 2018 until DI ending 0730 hrs on 31 July 2018.
- DI ending 1805 hrs on 1 August 2018 until DI ending 2000 hrs on 2 August 2018.

## 5. Conclusions and further actions

Between 21 July and 2 August 2018, AEMO issued six 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, applying appropriate intervention pricing 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>13</sup> Intervention Pricing Methodology, available at [http://www.aemo.com.au/-/media/Files/Electricity/NEM/Security\\_and\\_Reliability/Dispatch/Policy\\_and\\_Process/2018/Intervention-Pricing-Methodology.pdf](http://www.aemo.com.au/-/media/Files/Electricity/NEM/Security_and_Reliability/Dispatch/Policy_and_Process/2018/Intervention-Pricing-Methodology.pdf).