

NEM Event Directions Report 16 March 2023

December 2023





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. This report satisfies those NER obligations and is based on information available to AEMO as at 15 September 2023.

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

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Abbreviations

Abbreviation	Expanded name
CRA	Compensation recovery amount
IE	Independent Expert
MN	Market Notice
MW	megawatt/megawatts
NEM	National Electricity Market
NER	National Electricity Rules
SITHE	Smithfield Power Generation Pty Ltd
TI	Trading Interval

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1 Summary

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.

After it issues a direction, AEMO is required to publish a report outlining the matters specified in NER 3.13.6A.

On 16 March 2023, AEMO issued directions to a New South Wales Market Participant to maintain the power system in a reliable operating state during actual and forecast lack of reserve (LOR) conditions in the region. These directions are summarised in Table 1.

Table 1 Summary of the New South Wales direction on 16 March 2023

Directed plant	Directed participant	Event no.	Issue time	Direction	Cancellation time
Smithfield Energy Facility	Smithfield Power Generation Pty Ltd	1	1725 hrs, 16 March 2023	To make 38 MW of additional capacity available for dispatch and follow dispatch targets from 1730 hrs 16 March 2023. An update was issued at 1745 hrs to make 72 MW of additional capacity available for dispatch and follow dispatch targets from 1800 hrs 16 March 2023.	1835 hrs, 16 March 2023

To manage the reserve shortfalls, AEMO took the following steps:

- During trading interval (TI) 1725 hrs, AEMO issued a reliability direction to Smithfield Power Generator Pty Ltd (SITHE) to make 38 MW of additional capacity available and follow dispatch targets from TI 1730 hrs.
- Following discussions between AEMO and SITHE, AEMO subsequently issued an updated direction to make 72 MW of additional capacity available for dispatch and follow dispatch targets from TI 1800 hrs.
- Direction was cancelled at TI 1835 hrs when SITHE indicated to go fully commercial.

On the same day, AEMO contracted 140 MW of short notice reserves in New South Wales within 20 minutes in response to a forecast LOR2 condition, which subsequently developed into an actual LOR2 condition. As AEMO did not pre-activate or activate these reserves, no costs were incurred.

This report is limited to directions to SITHE. Information about the RERT contract activation is provided in a separate report¹.

¹ AEMO, RERT Reporting, <https://aemo.com.au/energy-systems/electricity/emergency-management/reliability-and-emergency-reserve-trader-rert/rert-reporting>

2 Intervention assessment

2.1 The need for intervention

On 16 March 2023, a trough passing over southeast Australia brought hot conditions, and dry, gusty westerly winds to the NEM. This combined with the absence of sea breeze saw demand in the New South Wales region increase sharply. Multiple forecast lack of reserve (LOR) 1 and 2 notices were issued in the lead up to the day for the afternoon and evening peak period.

2.2 Assessment of market response and latest time to intervene

Under NER 4.8.5A(a) and (c), AEMO must notify the market of any foreseeable circumstances that may require intervention (through direction or RERT activation), and the latest time for market response before AEMO would need to intervene.

AEMO contacted participants who operate suitable generating units in New South Wales to confirm their availability and the latest time to intervene for the evening LOR 2 period (MN 106706). An insufficient market response required AEMO to implement an AEMO intervention event.

The market notices relating to conditions on 16 March 2023 (issued from 10 March 2023 onward) are listed in Table 2.

Table 2 Relevant market notices issued from 10 March 2023

Notice issued	Summary
MN 106419 10 March 2023 at 1451 hrs	Forecast LOR 1 declared in New South Wales region for 16 March 2023 from 1530 to 1600 hrs and 1630 to 1900 hrs. Also refer to MN 106420 MN 106438, MN 106477, MN 106606.
MN 106458 11 March 2023 at 2328 hrs	Forecast LOR 2 declared in New South Wales region for 16 March 2023 from 1730 to 1830 hrs. Also refer to MN 106462, MN 106464, MN 106497, MN 106528, MN 106570, MN 106577, MN 106580, MN 106598, MN 106623, MN 106630 for updates between 11 and 14 March 2023.
MN 106635 14 March 2023 at 2131 hrs	Cancellation of LOR 2 (MN 106458) in New South Wales region at 2100 hrs.
MN 106644 15 March 2023 at 1257 hrs	Forecast LOR 1 declared in New South Wales region for 16 March 2023 from 1730 to 1830 hrs. Also refer to MN 106673, MN 106674, MN 106693.
MN 106700 16 March 2023 at 1634 hrs	Actual LOR 1 declared in New South Wales region for 16 March 2023 from 1600 hrs, forecast to exist until 1900 hrs.
MN 106706 16 March 2023 at 1703 hrs	Forecast LOR 2 declared in New South Wales region for 16 March 2023 from 1800 to 1830 hrs.
MN 106716 16 March 2023 at 1703 hrs	Actual LOR 2 declared in New South Wales region for 16 March 2023 from 1750 hrs, forecast to exist until 1830 hrs.
MN 106726 16 March 2023 at 1857 hrs	Cancellation of actual LOR 2 (MN 106716) in New South Wales region at 1855 hrs.
MN 106729 16 March 2023 at 1951 hrs	Cancellation of actual LOR 1 (MN 106700) in New South Wales region at 1950 hrs.

3 Intervention process

AEMO considers that it followed all applicable processes under NER 4.8 for the management of the directions on 16 March 2023².

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 for information prior to issuing the directions on 16 March 2023.

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 received no such notice, however due to a misunderstanding SITHE synchronised a directed unit online rather than simply making the unit available as directed. During the period of OMW dispatch instructions, it is deemed that the unit was non-conforming.

4 Dispatch and pricing outcomes

4.1 Changes to dispatch and pricing outcomes due to the directions

The direction to SITHE during this reporting period resulted in 25 megawatt hours (MWh) of generation being directed into the market.

Intervention pricing did not apply for the event in this report.

4.2 Direction costs

The compensation recovery amount³ (CRA) in respect of the directions on 16 March 2023 was \$1,556 (Table 3). Total CRA includes a claim for additional compensation by the Directed Participant assessed by an independent expert (IE) and fees payable to the IE pursuant to NER 3.12.3.

² AEMO. Power system operating procedure SO_OP_3707, "Procedures For Issue Of Directions And Clause 4.8.9 Instructions", 6 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.

³ Compensation recovery amounts are calculated in accordance with NER 3.15.8(a). CRA = Direction compensation payment – Retained trading amount + Additional compensation + IE fee

The Directed Participant was entitled to compensation under NER 3.15.7 for the provision of energy for the period from TI 1800 hrs up to the direction cancellation at 1835 hrs. The Directed Participant was not entitled to compensation for energy during the period it was given 0MW dispatch instructions from TI 1730 hrs up to the change in dispatch instructions at 1800 hrs. Total direction compensation payment to the Directed Participant during this direction period calculated using the 12-month 90th percentile New South Wales spot price of \$352/MWh was \$8,799.

As shown in Table 3, net settlement compensation to the Directed Participant was negative (-\$221,049) as the direction compensation payment for energy (\$8,799) was significantly lower than the retained trading amount (\$229,848) calculated using the New South Wales spot price which ranged between \$358/MWh and \$14,507/MWh during the direction period.

In accordance with NER 3.15.7B, a Directed Participant is entitled to claim for additional compensation. For this event, the additional compensation claim by the Directed Participant for loss of revenue of \$221,049 was accepted by the IE, therefore total CRA was \$1,556.

Table 3 Direction compensation recovery amount on 16 March 2023

	Direction compensation payment	Retained trading amount ^A	Net settlement compensation	Additional compensation	IE fee	Compensation recovery amount
16 March 2023 Direction	\$8,799	\$229,848	-\$221,049	\$221,049	\$1,556	\$1,556

A. Current design of the settlements system involves calculation and payment of trading amounts to directed generators during the period of direction, that is, trading amounts are calculated and paid as normal using spot or ancillary service prices, as though there was no direction.

Regional benefit factor determination

Compensation cost recovery arising from compensation payable to a Directed Participant is allocated to NEM regions using a regional benefit calculation determined by AEMO in accordance with NER 3.15.8(b1). In respect of a direction for the provision of energy, this is then recovered from Market Customers in proportion to the energy purchased in each relevant region.

As the direction was issued to a participant in New South Wales and the region was the sole beneficiary, total CRA of \$1,556 was allocated to New South Wales, with all compensation recovered from Market Customers in accordance with NER 3.15.8(b).

5 Conclusions and further actions

On 16 March 2023, AEMO issued directions to SITHE in New South Wales in order to maintain the power system in a reliable operating state, in response to consistent actual and forecast LOR conditions in the region. Directions issued to SITHE were to make additional capacity available for dispatch and follow dispatch targets, initially set at 0MW. Due to a misunderstanding during the direction process, SITHE synchronised the directed unit online rather than simply making the unit available as directed. No compensation was payable for energy generated during this period.

AEMO subsequently updated the initial direction instructions, issuing a direction to make 72MW of capacity available for dispatch and to follow dispatch targets.



AEMO is satisfied that all its 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 requirements. The market was informed after each direction was issued.

Other than the issue outlined in section 3.2, AEMO is also satisfied with the timeliness and adequacy of participant responses and communication throughout. AEMO has addressed this with the directed participant and is satisfied no further actions are required.