

# NEM Event Directions Report 14 October 2022 Basslink

June 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(a). This report satisfies those NER obligations and is based on information available to AEMO as at 21 June 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).

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## Abbreviations

Abbreviation	Expanded name
AEMO	Australian Energy Market Operator
FCAS	Frequency control ancillary services
kV	kilovolt
MN	Market Notice
MW	megawatt/megawatts
NEM	National Electricity Market
NER	National Electricity Rules
TI	Trading Interval

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# 1 Summary

On 14 October 2022, an incident involving the trip of a major double circuit 220 kilovolt (kV) line linking the north and south of Tasmania required several actions by AEMO including the direction that is the subject of this report.

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 clause 3.13.6A of the NER.

On 14 October 2022, AEMO issued a direction to Basslink (MN 102263). The direction is summarised in Table 1. The direction was subsequently cancelled following the return to service of the Liapootah-Palmerston lines in Tasmania on 2 December 2022 (MN 104130).

The direction did not require any changes to dispatch and no compensation was required.

**Table 1 Summary of Basslink direction on 14 October 2022**

Directed unit	Directed Participant	Event no.	Issue time	Direction instruction	Cancellation time
Basslink	Basslink Pty Ltd	1	1130 hrs, 14 October 2022	Basslink interconnector to operate in extended gamma mode Basslink HF7 Filter disabled	1340 hrs, 2 December 2022

## 2 Intervention assessment

### 2.1 The need for direction

At 0919 hrs on 14 October 2022, there was an unplanned outage of Liapootah-Palmerston tee Waddamana No.1 and No.2 220kV lines, the major transmission lines linking north and south of Tasmania<sup>1</sup>. With these lines out of service, Basslink was required to operate in extended gamma mode and Basslink HF7 filter disabled. Increased gamma operation may be enabled at Basslink when the alternating current (AC) system at George Town in Tasmania is very weak due to line outages<sup>2</sup>. Additionally, disabling Basslink's harmonic filter is to ensure that the AC voltage level at the converter station is maintained between defined limits and to avoid large swings.

The requirement to intervene for directions in this report arose as Basslink informed AEMO they would require a direction to carry out the required actions in response to the unplanned transmission line outage.

<sup>1</sup> For more information see AEMO's preliminary incident report on the trip of the Liapootah-Palmerston 220 kV lines, available at: [https://aemo.com.au/-/media/files/electricity/nem/market\\_notices\\_and\\_events/market\\_event\\_reports/2022/preliminary-report-trip-of-liapootah-palmerston-lines.pdf?a=en](https://aemo.com.au/-/media/files/electricity/nem/market_notices_and_events/market_event_reports/2022/preliminary-report-trip-of-liapootah-palmerston-lines.pdf?a=en)

<sup>2</sup> A key feature of this mode is the increased firing angle of the thyristors resulting in increased reactive power absorption at the George Town end of Basslink.



## 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.

A possible intervention notice was not published for this direction event as the latest time to respond was immediate due to the unplanned outage of the transmission lines and could not be met by a market response other than Basslink.

# 3 Intervention process

AEMO considers that it followed applicable processes under NER rule 4.8 for the management of the direction between 14 October 2022 and 2 December 2022<sup>3</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 did not request information from Scheduled Network Service Providers, Scheduled Generators, Semi-Scheduled Generators, and Market Customers prior to issuing this direction on 14 October, because the direction was not issued to address any power system security needs, but to ensure that the directed participant was able to carry out required actions in response to the transmission line outage.

## 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 the participant complying with the direction listed in Table 1.

# 4 Dispatch and pricing outcomes

## 4.1 Changes to dispatch outcomes due to the directions

The direction did not result in any changes to dispatch and intervention pricing did not apply for the event(s) in this report.

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<sup>3</sup> AEMO. Power system operating procedure SO\_OP 3707, "Procedures For Issue Of Directions And Clause 4.8.9 Instructions", 6 September 2019, [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).



## 4.2 Direction costs

The direction was to enable Basslink to operate under a weak power system due to the transmission line outage. No compensation is payable to the directed participant as a result of this direction as it did not result in the provision of other compensable service in accordance with NER 3.15.7A.

# 5 Conclusions and further actions

On 14 October 2022, AEMO issued a direction to Basslink to operate in an extended gamma mode and Basslink HF7 filter disabled in response to an unplanned outage of the Liapootah – Palmerston tee Waddamana No.1 and No.2 220kV lines. This direction was subsequently cancelled on 2 December 2022 following the return of the lines.

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, enacting and managing the intervention. The market was informed after the direction was issued.

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