

SUPPLY SCARCITY PROCEDURES CONSULTATION

FINAL REPORT AND DETERMINATION

Published: 3 May 2021





EXECUTIVE SUMMARY

The publication of this Final Report and Determination concludes the consultation process conducted by AEMO to finalise the Supply Scarcity Procedures under clause 3.8.14A of the National Electricity Rules (NER). These procedures set out AEMO's approach to determining its choice of supply scarcity mechanism.

A supply scarcity mechanism refers to any of the following:

- Exercising the RERT
- Issuing a direction in accordance with clause 4.8.9 of the NER
- Issuing a clause 4.8.9 instruction

On 22 October 2020 AEMO published an interim version of the supply scarcity procedures, in accordance with clause 11.129.2 of the NER.

As a first step to finalising the supply scarcity procedures AEMO published a consultation notice on 21 January 2021 and sought stakeholder feedback on the methodology and assumptions detailed in the interim procedures. AEMO did not receive any stakeholder submissions.

On 18 March 2021, the Draft Report and Determination was published. There were no stakeholder submissions in response to this report.

As no stakeholder submissions were received during the consultation process, in finalising the procedures AEMO has not made any material changes relative to the interim version.¹

AEMO's determination is to publish the Supply Scarcity Procedures in the form published with this Final Report.

¹ AEMO has made two administrative changes; removing the direction duration from the calculation since the formula referred to energy instead of power and noting that supply scarcity mechanisms that are also AEMO intervention events (that is, RERT and directions) are in practice preferred ahead of clause 4.8.9 instructions as these generally have lower costs and are more effective. These changes are reflected in the finalised supply scarcity procedures attached to this report.



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1. STAKEHOLDER CONSULTATION PROCESS

As required by clause 3.8.14A of the NER, AEMO has consulted on the Supply Scarcity Procedures in accordance with the Rules consultation procedures in rule 8.9.

AEMO's timeline for this consultation is outlined below.

Table 1 Timeline for this consultation

Deliverable	Indicative date
Notice of first stage consultation published	21 January 2021
First stage submissions closed	1 March 2021
Draft Report & Notice of second stage consultation published	18 March 2021
Submissions due on Draft Report	2 April 2021
Final Report published	3 May 2021

The publication of this Final Report closes the consultation process.

2. BACKGROUND

2.1. NER requirements

This consultation was conducted under clauses 3.8.14A and 11.129.2 of the NER, in accordance with the Rules consultation requirements detailed in rule 8.9 of the NER.

NER clause 3.8.14A requires AEMO to develop and publish, and allows it to amend, the Supply Scarcity Procedures. The procedures must include details of the methodology AEMO will use, and the assumptions AEMO may make, when choosing a supply scarcity mechanism.

In developing and amending the procedures, NER clause 3.8.14A specifically requires that AEMO

- must have regard to the examples of the types of direct² and indirect costs³ set out in clauses 3.8.14(c) and 3.8.14(d);
- must take into account any applicable guidelines issued by the Reliability Panel.

NER clause 11.129.2 requires AEMO to develop and publish the procedures by 3 May 2021.

2.2. Context for this consultation

On 10 September 2020, the Australian Energy Market Commission (AEMC) made a final rule to replace the hierarchy⁴ of intervention mechanisms embedded in the NER with a principle that AEMO must use reasonable endeavours to select effective mechanisms that address supply scarcity conditions that may arise while also minimising direct and indirect costs.⁵

The final rule also required AEMO to develop, publish, review, and update the Supply Scarcity Procedures that set out AEMO's approach to determine the choice of supply scarcity mechanism.

² Direct costs include: pre-activation and activation costs payable under reserve contracts if AEMO dispatches or activates reserves; and paying compensation to a Market Customer that is entitled to compensation under clause 3.12.2, a Directed Participant and an Affected Participant.

³ Indirect costs include: distortionary effects on the operation of the market; and the implied value of lost load when load shedding occurs as a result of a clause 4.8.9 instruction.

⁴ The NER formerly prescribed that after dispatching all valid bids and offers, AEMO must use reasonable endeavours to first activate or dispatch the RERT and then, if necessary, issue either directions or instructions.

⁵ For more information on the rule change, refer to the project page <https://www.aemc.gov.au/rule-changes/removal-intervention-hierarchy>



The documents for each stage of this consultation are available at:

<https://aemo.com.au/consultations/current-and-closed-consultations/supply-scarcity-procedures>

2.3. First stage consultation

AEMO issued a Notice of First Stage Consultation on 21 January 2021.

AEMO did not receive any written submissions in the first stage of consultation.

2.4. Second stage consultation

AEMO issued the Draft Report and Determination on 18 March 2021.

AEMO did not receive any written submissions in the second stage of consultation.

3. FINAL DETERMINATION

AEMO's final determination is to make the Supply Scarcity Procedures in the form of Attachment 1, in accordance with clause 3.8.14A of the NER.

As no stakeholder feedback was received as part of this consultation process, the Supply Scarcity Procedures contained in Attachment 1 are unchanged from the interim version of the procedures (with the exception of two administrative changes⁶).

⁶ AEMO has made two administrative changes; removing the direction duration from the calculation since the formula referred to energy instead of power and noting that supply scarcity mechanisms that are also AEMO intervention events (that is, RERT and directions) are in practice preferred ahead of clause 4.8.9 instructions as these generally have lower costs and are more effective. These changes are reflected in the finalised supply scarcity procedures attached to this report.



ATTACHMENT 1 – SUPPLY SCARCITY PROCEDURES

This attachment sets out the finalised supply scarcity procedures to describe AEMO's approach to determining its choice of supply scarcity mechanism under clause 3.8.14A of the NER.

Supply scarcity mechanisms

A *supply scarcity* mechanism refers to any of the following:

- a) exercising the *RERT*;
- b) issuing a *direction* in accordance with clause 4.8.9 of the NER; and
- c) issuing a *clause 4.8.9 instruction*.

If, after dispatching all *dispatch bids* and *dispatch offers*, AEMO determines additional actions are required to address conditions of *supply scarcity*⁷, AEMO must decide which *supply scarcity mechanism(s)* to use.

In making that decision, AEMO must use reasonable endeavours to choose the mechanism, or combination of mechanisms, that is effective in addressing the *supply scarcity* conditions while minimising the associated direct and indirect costs.

Supply scarcity mechanisms that are also *AEMO intervention events* (that is, *RERT* and *directions*) are in practice preferred ahead of *clause 4.8.9 instructions* as these generally have lower costs and are more effective.

Methodology

This section describes the factors AEMO will take into account in evaluating both the costs and effectiveness of each *supply scarcity mechanism*, in comparison to others, or a combination of mechanisms.

RERT

For *RERT*, the direct costs AEMO will consider include pre-activation and activation costs payable under relevant *reserve contracts*, as well as potential compensation payable to *Affected Participants* or *Market Customers* under rule 3.12 of the NER as a consequence of exercising the *RERT*. AEMO will also have regard to any material distortionary effects due to the use of emergency *reserves*.

In terms of effectiveness, the selection of *RERT* as an appropriate *supply scarcity* mechanism will depend on the availability of *reserve contracts* for *dispatch* or *activation* that are likely to address the prevailing *supply scarcity* conditions, based on factors including:

- size of *reserve* blocks;
- length of *dispatch* or *activation* times;
- *dispatch* or *activation* constraints (for example, maximum number of days or consecutive days per week of *dispatch* or *activation*, maximum and/or minimum periods of *dispatch* or *activation*)
- historical performance of the *reserve*: and
- shutdown periods when the *reserve* blocks are not available.

Directions

With respect to the cost of *directions*, AEMO will consider any cost estimates provided to AEMO by potential *Directed Participants* and account for the amount payable under the formula compensation mechanism in clause 3.15.7 of the NER by considering the minimum estimated energy required under the

⁷ Indicating conditions in which the available *supply* may become insufficient to securely meet demand for energy. This is different from the concept of 'supply scarcity' as defined in the *frequency operating standard*.



most likely potential *direction(s)* (MWh) x the price below which are 90% of the *spot prices* in the relevant *region*, for the 12 months preceding the *trading day* in which the *supply scarcity* conditions have occurred. As with the *RERT*, AEMO will also have regard to potential compensation payable to *Affected Participants* or *Market Customers* and any material distortionary effects.

In terms of effectiveness, the selection of directions as an appropriate *supply scarcity* mechanism will depend on the availability for *direction of scheduled plant* or *market generation* that is likely to address the prevailing *supply scarcity* conditions, based on factors including:

- time taken to synchronise;
- recall times;
- minimum run times;
- network location;
- minimum generation or demand reduction levels;
- delivery risk and uncertainty; and
- fuel availability.

Instructions

For *clause 4.8.9 instructions for load shedding*, the key cost consideration is the implied value of lost load when *load shedding* occurs. For this calculation, AEMO will use the energy-weighted average aggregate value of customer reliability (VCR) values (or equivalent) published by the *AER* for each *region*. AEMO will also have regard to any material distortionary effects.

The effectiveness of *clause 4.8.9 instructions* to address the *supply scarcity* condition will be considered having regard to all relevant factors, including the amount of load available to be shed at key *network* locations, the relative *load shedding* priorities and the application of the relevant *load shedding* procedures.

Assumptions

The key assumptions in the methodology are the three cost metrics above, as some of these values are not easily determined prior to the use of the supply scarcity mechanism.

AEMO will assume all facilities will perform/deliver as anticipated (including in accordance with *performance standards* and *reserve contracts* as applicable).