



Operating reserves

The Commission has published a directions paper outlining a proposed way forward for the operating reserve rule change requests.

The Australian Energy Market Commission (AEMC, or the Commission) proposes not to recommend the implementation of an operating reserve market. While such a market could provide greater visibility of market participants' reserve decisions to the market operator helping to manage risks, it would not offer any performance improvements relative to the current arrangements, and would also likely introduce additional costs for the market. We are seeking stakeholder feedback on the directions paper.

The need for reserves is increasing as the power system transitions

Australia is undergoing a transformational shift to net zero. A key feature of this transformation is the pivot from thermal generation assets to variable renewable energy and batteries.

Greater reliance on renewable generation sources introduces greater variability and uncertainty in power system conditions, linked to changing weather patterns. Addressing this variability requires more backup energy or 'reserves', which constitute capacity that is available to change the supply/demand balance in the near future to keep the system secure and reliable.

The Commission proposes not to recommend the implementation of an operating reserve market

Participants in the current market make their own commitments to keep capacity in reserve based on price signals and the risks and operational costs associated with running their plant. To date, the need for reserves has therefore been met through market arrangements that price the need for energy and frequency control but do not explicitly price reserves.

Another approach to meeting reserve needs is to explicitly value their provision through an operating reserve market. This would separate the provision of reserves from energy and frequency control ancillary services (FCAS) markets.

The AEMC has considered the merits of this approach and is proposing not to recommend the implementation of an operating reserve market.

While it could provide greater visibility of market participants' reserve decisions to the market operator helping to manage risks, it would not offer any performance improvements relative to the current arrangements, and would also likely introduce additional costs for the market.

A number of stakeholders (although not all) supported this view as part of the AEMC's consultation in considering the rule change requests received by Iberdrola and Delta Energy.

We are instead investigating the value of pursuing incremental improvements

We recognise that variability and uncertainty may lead to an increased need for reserves while the energy transition proceeds. We consider that this increased need will likely not endure beyond the transition. This is because improvements in forecasting, coupled with greater geographic and technological diversity of the generation fleet, will likely lead to

eventual reductions in variability and uncertainty.

There are nonetheless a number of improvements that can be pursued to support the existing market arrangements to best meet the system's need for reserves across the transition. The Australian Energy Market Operator (AEMO) is already progressing several valuable change initiatives in this respect.

The Commission is interested in stakeholder feedback on two further incremental improvement opportunities, in addition to the initiatives that AEMO is already progressing. The two opportunities are:

- **Develop and publish more information to the market**, with a particular focus on energy limited plant. This would involve AEMO receiving information on storage/state of charge and publishing it in either pre-dispatch or dispatch, with the aim to address the need for more information on the flexibility and duration of plant.
- **Procurement of FCAS at a regional level**, or alternately limiting the amount of FCAS procured from a single region to increase the amount of FCAS procured in other regions. This could allow for frequency stabilisation within a region following a rapid and unexpected change in VRE output, without being limited by interconnector headroom between regions. It could also allow for transmission infrastructure to be used more effectively and may improve network utilisation, potentially avoiding some transmission spend as we move through the transition.

We are seeking stakeholder feedback on the directions paper

Collaboration through submissions, technical working groups, and other market bodies has been critical to developing this paper. Stakeholders can help shape the Commission's decisions on these rule changes by participating in this consultation process. Engaging with stakeholders helps us understand the potential impacts of our decisions and, in so doing, contributes to well-informed, high-quality decisions.

Due date: Written submissions responding to this directions paper must be lodged with Commission by 31 August 2023.

How to make a submission: Go to the Commission's website, www.aemc.gov.au, find the "lodge a submission" function under the "Contact Us" tab, and select the project reference code ERC0295. If you are not able to lodge a submission online, please contact us and we will provide instructions for alternative methods to lodge the submission.

What to include in a submission: the Commission is most interested in stakeholders' views on the following questions:

- **Question 1:** do you agree with the Commission's decision not to implement an operating reserve market?
- **Question 2:** is there merit pursuing the two additional incremental improvements, including formalising these in the Rules framework?
- **Question 3:** are there any other incremental improvements that should be pursued in the absence of an operating reserve market being implemented?

Background on the rule change requests and work completed to date

This paper forms part of the AEMC's consideration of rule change requests received from Iberdrola Australia (previously Infigen Energy) and Delta Electricity, as well as a range of options to address the issues they raise. These projects are being progressed together as a single reform process considering the need for, and appropriate design of, reserve services in the NEM.

An AEMC consultation paper was published on these rule change requests, along with five others, in July 2020. This was followed by a directions paper specifically considering the Iberdrola and Delta rule change requests, published in January 2021.

This paper is an update to the January 2021 directions paper, which sought feedback on the need for a reserve service and outlined several options to procure reserves.

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3 August 2023