



Enhancing reserve information final determination

The Australian Energy Market Commission (Commission) has made a final determination to not implement an operating reserve market but to improve transparency of energy availability

The Commission's final determination is to not implement an operating reserve market. This determination follows extensive analysis of the issues, stakeholder feedback to the directions paper and draft determination, and recent reforms. While an operating reserve market could provide greater visibility of market participants' reserve decisions helping to manage risks, the Commission considers that it would not offer any material performance improvements relative to the current arrangements, and would introduce significant additional costs for the market.

There was near unanimous agreement in response to the December 2023 [draft determination](#) on the Commission's decision not to implement an operating reserve market.

In the absence of an operating reserve market, the final determination focuses on improving transparency to better assess when reserves are needed during the transition.

The Commission's final rule is consistent with the draft rule to improve current market arrangements

The Commission has made a [more preferable](#) final rule, consistent with the draft rule, that supports the provision of reserves under current market arrangements. The final rule will require the Australian Energy Market Operator (AEMO) to publish information on energy availability including:

- **State of charge:** the energy availability of batteries (i.e. state of charge in MWh) will be published close to real-time, aggregated by region, and the following trading day by dispatchable unit identifier DUID (to align with existing post-trading day publications).
- **Daily energy constraints:** the energy constraints of other scheduled plant types (hydro, gas and coal) will be aggregated across all technologies and by region, published daily (at the start of each trading day).
- **Maximum storage capacity:** storage participants will need to provide their maximum storage capacity (MWh) to the AEMO in their bid and offer validation data.

This information, with the exception of maximum storage capacity, is already provided to AEMO through supervisory control and data acquisition (SCADA) by battery participants and through energy constraint information provided to AEMO by other scheduled plant types. The final rule does not place onerous reporting obligations on either AEMO or market participants. It is designed as an improvement to further support any increased need for reserves as we transition and address how energy availability may continue to play a prominent role in the national electricity market (NEM), particularly as more storage assets enter the system.

The Commission considers that this information will support more efficient commercial and operational decisions, potentially leading to better provision of reserves. For participants, this information could assist in the efficient provision of reserves over shorter and longer durations. For example, information showing that a region has a low level of reserve duration (in MWh) available from flexible energy constrained sources (i.e. batteries) could:

- signal to storage providers that there is a high value in charging (even at relatively high energy prices) in order to meet future energy needs and account for potential uncertainties later in the day

- signal to other capacity (such as gas generators) that there is a high value in turning on to provide flexible headroom to be available for uncertain events and provide energy over longer durations over the course of the day.

In response to the directions paper, most stakeholders supported this change. Stakeholders noted that increased transparency could lead to improved risk management and operational decisions. This was also supported by AEMO and the Australian Energy Regulator (AER), noting it could lead to more efficient bidding practices and is an important first step towards broader consideration of energy-limited plant.

Stakeholders largely remained supportive of these proposals in response to the draft determination. However, some stakeholders noted concern about how this information would be aggregated, particularly for the daily energy constraints for other plant types. The Commission **confirms that the energy constraints of hydro, gas and coal will be aggregated together across these plant types, for each NEM region**. It will therefore not reveal the energy constraints of specific plant types nor reveal any individual participant's fuel reserves.

Batteries will not be aggregated with these generation sources, given the more frequent state of charge updates provided to AEMO by SCADA. However, implementation of this change will not occur until 2027, when we expect a greater uptake of batteries within the power system. This will help to mitigate any anti-competitive behaviour that may be facilitated by revealing individual participant reserves.

Other changes proposed in the directions paper are not being progressed further through this rule change

One additional suggestion that came to light through the assessment of this rule change is the potential need to manage frequency due to rapid and unexpected changes in VRE output in a more cost-effective way by accessing FCAS through regional and sub-regional frameworks. In early 2023, Powerlink provided a submission to the Commission's 2021 Operating reserves [directions paper](#), suggesting that regional and sub-regional FCAS procurement could be formalised within the rules.

The Commission sought wider stakeholder feedback on this suggestion in its [2023 directions paper](#). We received a diverse range of feedback, with particular concerns that changes to the FCAS frameworks at a regional/sub-regional level might impact the global FCAS market, with questions around market power and cost recovery.

Some stakeholders also considered that given the materiality of this change, it is not considered an incremental improvement and should therefore, if implemented, be assessed through a dedicated rule change to avoid any perverse or unintended outcomes.

The Commission has investigated the rules around regional and sub-regional FCAS and considers:

- the rules currently enable AEMO to procure FCAS at a regional level and do not limit this to any specific event
- the rules are not clear on whether the provisions for regional FCAS procurement extend to a sub-regional level.

Stakeholders supported this view in response to the draft determination and remain interested in this change being pursued through a separate rule change process. We are therefore not proposing at this time to amend the rules to specify when regional or sub-regional FCAS should be procured.

The Commission asks AEMO to engage with stakeholders on its operational forecasting

The Commission has decided not to prescribe additional reporting obligations on AEMO with regard to operational forecasts through this rule change.

This was raised by stakeholders in response to both the directions paper and draft determination. Stakeholders were concerned about the accuracy of operational forecasts, particularly in relation to forecast errors contributing to increased lack of reserve (LOR) notices and activation of the reliability and emergency reserve trader (RERT). These

stakeholders considered there remained benefits in AEMO publishing more information on its operational forecasts, to provide greater transparency to the industry on how AEMO develops its operational forecasts, and the drivers behind LORs and out-of-market interventions including RERT.

We understand that AEMO is actively engaged in a dedicated program of work aimed at enhancing operational forecasts. Additionally, AEMO currently publishes a range of information to the industry, particularly focusing on RERT activation and LOR declarations. This includes comprehensive data on operational demand, as well as forecasts provided via AEMO's [NEMWeb](#).

Despite these efforts, we acknowledge stakeholders' concerns about the need for greater transparency. It's essential to note that the Rules do not preclude AEMO from providing additional information to the market regarding its operational forecasts and the declaration of LORs.

Therefore, the Commission asks AEMO to collaborate with the industry to address these stakeholder concerns with regard to the accuracy of operational forecasts. This collaboration should aim to enhance industry-wide comprehension of reliability shortfalls and operational forecasts.

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