



28 November 2022

Andrew Turley
Group Manager, Forecasting
Australian Energy Market Operator (AEMO)

Submitted via email: energy.forecasting@aemo.com.au

Dear Mr Turley,

NEM Reliability Forecasting Guidelines and Methodology Consultation

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on AEMO's NEM Reliability Forecasting Guidelines and Methodology Consultation Paper.

Origin generally supports initiatives to improve reliability forecasting, including energy adequacy assessments. We, however, consider more work and consultation are needed with respect to the proposed changes to energy adequacy assessments, and more clarity would be welcome on how AEMO intends to implement the proposed planned outage categories and reason codes.

Energy adequacy assessment

Origin supports, in principle, improved information provision to help AEMO better understand reliability and adequacy risks with respect to energy-limited plant. The consultation paper proposes alternative Generator Energy Limitations Framework (GELF) parameters and Energy Adequacy Assessment Projection (EAAP) scenarios with a view to helping AEMO understand and model energy adequacy risks more appropriately, including as they relate to fuel supply, supply chains and fuel market scarcity.

Origin is concerned that some of the proposed additions will have a high degree of uncertainty, which may undermine their usefulness in understanding the risks associated with energy limitations. For example, it is unclear how AEMO would model the "low thermal fuel scenario", including which assumptions it would make in relation to a "worst-case" estimate for fuel availability. Estimating fuel availability, including a worst-case scenario, is inherently uncertain. Availability depends on a range of factors, including contractual positions and negotiations, physical delivery issues and expected generation levels.

Similarly, the proposed GELF parameters would be difficult for generators to provide with a degree of certainty. In addition to the uncertainty around contractual positions and expected generation levels, market participants do not typically have comprehensive knowledge of the entire fuel supply chain and visibility of competition for fuel supply. This would limit the accuracy of fuel supply estimates. It is also unclear if the proposed parameter, "energy output limits per scenario in MWh", is intended to be provided as monthly or weekly energy limit.

It is also not clear how useful the proposed parameter, "cooling water and demineralised water storage availability and limits" would be, given that a point-in-time estimate of availability and limits may not appropriately capture whether a unit is affected by a water limitation.

As a result, we consider that more information and consultation is needed to develop the proposed additions or identify more useful parameters and scenarios to improve AEMO's understanding of energy adequacy risks.

Planned outage categories

Origin is generally supportive of AEMO improving its reliability forecasting for scheduled generators, including with respect to outage information. Origin would welcome clarification and more information on how AEMO intends to implement the proposed additional outage categories, i.e., categories 6 (full planned outage extension) and 7 (partial planned outage extension). AEMO should be clear in its documentation and with participants on the definitions of partial or full planned outage extensions and on what generators are expected to report, including by providing examples.

Specifically, in developing its guidelines and documentation, AEMO should consider the following issues for clarification:

- It is not entirely clear what the definition of a partial planned outage is – for example, would the extension of a derated unit for maintenance purposes count as a partial planned outage extension?
- At present, if a planned outage is extended, generators would edit the timeframe of the existing reported outage to inform AEMO of the change. It is not clear if the intent is for participants to create a new event/report if a partial or full planned outage is extended. If this is the case, AEMO should clarify if the intent is to provide information on the length of the extension only, rather than the entire outage duration.
- Outages are extended for numerous reasons, some of which may be due to a change in scope of the works being undertaken, while others may be due to a minor delay (e.g., an hour). AEMO should clarify if the new requirements are intended to capture all types of extensions.

Medium-term Projected Assessment of System Adequacy (MT PASA) reason codes

Origin supports the use of the IEEE standard 762-2006 to implement reason codes as proposed in the consultation paper, but considers more information is required on how this would work in practice. AEMO should provide clear guidance on the definitions of the proposed reason codes so that participants understand their intent, including clear descriptions of basic or extended planned outages.

Should you have any questions or wish to discuss this submission further, please contact Sarah-Jane Derby at Sarah-Jane.Derby@originenergy.com.au or on (02) 8345 5101.

Yours sincerely,



Steve Reid
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