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28 November 2022

To whom it may concern,

AEMO NEM Reliability Forecasting guideline and methodology consultation paper

ENGIE Australia & New Zealand (ENGIE) appreciates the opportunity to respond to the Australian Energy Market Operator ("AEMO") in response to the AEMO NEM Reliability Forecasting guideline and methodology consultation paper ("the Consultation").

The ENGIE Group is a global energy operator in the businesses of electricity, natural gas and energy services. In Australia, ENGIE has interests in generation, renewable energy development, and energy services. ENGIE also owns Simply Energy which provides electricity and gas to retail customers across Victoria, South Australia, New South Wales, Queensland, and Western Australia.

ENGIE considers that it is appropriate as we move through the energy transition that forecasting methodologies be reviewed and updated periodically. ENGIE also recognises that AEMO's forecasting task has become progressively more complex as a result of the changing energy system. However, AEMO should not place too much weight on the recent events that resulted in market suspension. As AEMO noted, some of the short-term energy limits that arose "were not anticipated by participants" and so were not provided to AEMO. It doesn't necessarily follow that AEMO needs to solve for this lack of ability to anticipate specific issues by designing unduly conservative forecasting tools, rather the events illustrate the limitations of forecasting as a preventative measure. With this in mind, while ENGIE supports AEMO's intent to improve forecasting processes, we have a number of concerns, outlined below.

Scenarios for the Energy Adequacy Assessment Projection (EAAP)

ENGIE agrees that AEMO should develop a small number of scenarios that represent a diverse set of potential outcomes. However, each scenario should be tested for the likelihood of occurrence and consulted on with stakeholders. On the face of it, the proposed Low Thermal Fuel scenario may be excessively conservative as it assumes energy availability challenges across all types of generation simultaneously. If AEMO intends to retain this or a similar "worst case" scenario, then it's especially important that AEMO continues to only declare low reserve conditions (LRC) for more probable scenarios.

While ENGIE appreciates the need for some flexibility in scenario design, the proposed 4th scenario of "any other scenario that AEMO reasonably considers will have a material impact on the EAAP" is too broad a definition. AEMO should consider how it will consult with stakeholders on such scenarios before applying them in practice.

Outages and other limitations

ENGIE considers that AEMO should take care not to overstate the likelihood of unplanned outages by including data from extensions to planned outages. AEMO should also consider whether a 24 hour return to service (RTS) criterion is unduly inflexible and a longer period (48 or 72 hours for example) would be more appropriate for the EAAP.

Likewise, outage information should not be used in a way which best services AEMO's modelling software limitations and therefore is wholly inaccurate. The potential to turn all outages that aren't in MTPASA into random forced outages is driven by modellers convenience not reality of how generators operate. For things like tube leaks there is often a degree of flexibility to keep a unit on a few extra days below full load to get to a weekend or cool change. Increasing the forced outage rate rather than having some outages with a few days flexibility is overly conservative.

Consistent approach to forecasting supply and load

ENGIE notes that there is an asymmetry in AEMO's approach to forecasting changes in supply and demand. While the Consultation states that AEMO is seeking to increase the consistency of commitment criteria, this appears only to apply to new large-scale plant. Large-scale load will still be included based only on AEMO's survey data rather than when the proponents have committed to the project that will result in the new load.

Conversely, on the small-scale side, AEMO appears to be proposing to continue its practice of forecasting increasing load based on macroeconomic forecasts of new connections. However, the Consultation states that AEMO's forecast aggregated distributed energy resources (DER) will not be included in MT PASA or EAAP, even though it is included in the current ESOO, unless it can be "identified as having been committed". Only the largest DER developments are at all likely to be able to provide "commitment", even though it is implausible that rooftop PV installations will suddenly cease.

It's the *combination* of these sets of assumptions on the supply and demand side that are unduly conservative, and ENGIE considers AEMO should take a more consistent approach overall.

Data collection and compliance

ENGIE notes that AEMO is seeking additional information from participants under the Generator Energy Limits Framework (GELF). ENGIE requests that AEMO is mindful that more information provision typically results in additional costs to participants, and sometimes creates avoidable compliance risks. For example, the proposal to collect GELF information around the same time as other data requests could help save costs for participants if they can integrate and streamline their information provision into a single process. However, the Consultation includes the caveat "unless an update is required". AEMO will need to be clear

about the circumstances under which an update is required so that there is no ambiguity for participants as to whether or not they need to provide updated information.

Additionally, ENGIE has concerns at suggestions AEMO would need to cite contracted fuel data years in advance in order to not to apply energy limits. This would fail to accurately reflect how the market actually works and why it is beneficial for the market to continue to operate this way.

Consideration of the costs of overly conservative forecasting

ENGIE recognises that AEMO is in an invidious position with respect to its incentives. AEMO does not bear the financial costs of market interventions so has no direct incentive to minimise these costs. However, AEMO faces a reputational incentive to "keep the lights on" and avoid unserved load – potentially even beyond the level specified by the reliability settings. As such, it is easy for stakeholders to wonder if AEMO is unduly conservative in its grid management, including forecasting. This would matter little if conservatism had no costs to consumers, but in reality, it does. If processes such as the EAAP are overly oriented to generating reliability concerns, AEMO may procure more long notice and multi-year reserves through the Reliability and Emergency Reserve Trader (RERT) process. Consumers have to pay for these RERT costs.

While AEMO cannot directly overcome this incentive issue, there are ways it can signal that it is taking a balanced view. These could include a high-level assessment of the costs that changes to its forecasting approach could trigger, such as increased RERT costs.

Should you have any queries in relation to this submission please do not hesitate to contact me on, telephone, 0477 299 827.

Yours sincerely,

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Compliance, and Sustainability