14 April 2025

Australian Energy Market Operator (AEMO)

Via email: *ISP@aemo.com.au*

Draft ISP Methodology

Alinta Energy welcomes the opportunity to provide feedback on AEMO's Draft ISP Methodology consultation paper.

Alinta Energy is generally supportive of the Draft ISP methodology (*ISP Methodology*), however, would like to make the following recommendations for AEMO's consideration.

Security remediation component cost trajectory appears overly optimistic

We are generally supportive of the system security proposals (Section 5.2 of the *ISP Methodology;* Section 4.7.2 of the *Consultation paper*); however, we consider that the proposed cost trajectory of the system remediation component is too optimistic. We recommend that AEMO does not assume cheaper technology (including grid-forming) options will materialise, and to use the cost assumptions provided by TNSPs in their procurement processes (e.g. RIT-T and Project Assessment Draft Reports / PADR) considering that:

- It appears unlikely that grid-forming (GF) technology will be able to meet minimum system strength requirements. Most published TNSP PADRs suggest, for now, that GF inverters aren't yet appropriate to meet the minimum system strength requirement and only synchronous machines are (including clutched GTs). GF inverters are only appropriate (for now) to deal with the efficient system strength requirements and for system security remediation.

- Synchronous condenser costs are likely to *increase* alongside global demand and AEMO's preference for utilising TNSPs' preferred system security portfolio procurement options for the immediate ten-year horizon. We understand AEMO has adopted this preference to avoid disconnected planning processes and encourage the most efficient, suitable outcome from the RIT-T.

The capacity outlook model should incorporate analysis of lead times

We believe the capacity outlook model (Section 2 of the *ISP Methodology*; Section 2.2 of the *Consultation paper*) may be limited in its modelling approach: by excluding historical variability in project lead times for generation development alongside industry projections, thus modelling an unimpeded (and unrealistic) development pathway. Additionally, other analysis undertaken by AEMO and other industry bodies does not align with some of the projections provided in the Draft ISP. We recommend that the development pathway modelling within the capacity outlook incorporate the following historical data sources and analysis:

Historical data sources

- Data on prior macro factors (such as regulatory changes and grid capacity constraints) on the historical trends of renewable energy construction, as estimated by the Australian Bureau of Statistics. This data indicates a non-linear trend incorporating several macro disruptions in renewable energy construction.

- Data on the impacts of regulation on project lifecycles, with research indicating between 2000 and 2023: pre-construction lead times for onshore wind and solar projects had improved; commissioning times for wind projects had remained stable and not improved; solar commissioning times increased from three to around seven months driven by regulatory changes.

Other AEMO and industry analysis

- The Electricity Statement of Opportunities includes a view where further investment beyond current committed and anticipated projects is delayed or does not materialise. Unserved energy forecasts under this outlook indicate that existing generation may be required for longer to avoid shortfalls.

- Data from the Electricity Statement of Opportunities which provides changes in committed and anticipated investment (see Section 3 in the *2024 Electricity Statement of Opportunities*). This data could be used with observed delays in recent projects to provide historical benchmarking.

- Prior recommendations from the AEC outlining the need for improved sensitivity analysis to better reflect the evolving nature of risks to the ISP's projections. It is noted that AEMO has, in this consultation paper, determined changes to the sensitivity analysis it conducts is out of scope, and will consider recommendations of individual sensitivities only. We recommend AEMO considers future consultation on their sensitivity analysis approach.

Without taking the above data sources into account, the ISP methodology provides an overly optimistic view within its capacity outlook model. A more comprehensive assessment of historical data and market and industry data would allow for a greater level of specificity and therefore confidence in the sensitivity analysis undertaken by AEMO in its ISP and ultimately in its forecasts.

Thank you for your consideration of Alinta Energy's submission. If you would like to discuss this further, please get in touch with Oscar Carlberg at oscar.carlberg@alintaenergy.com.au or on 0409 501 570.

Yours sincerely,

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