

30 October 2024



EnergyAustralia

LIGHT THE WAY

Mr Chris Mock
Engineering Strategy – Future Energy
Australian Energy Market Operator (AEMO)

Lodged electronically via futureenergy@aemo.com.au

Dear Mr Mock

Technical Requirements for 200kW to 5MW DER Connections

EnergyAustralia (EA) is one of Australia's largest energy companies with around 2.4million electricity and gas accounts in NSW, Victoria, Queensland, South Australia, and the Australian Capital Territory. We own, contract, and operate a diversified energy generation portfolio spanning coal, gas, battery storage, demand response, solar, and wind assets. Combined, these assets comprise over 5GW of generation capacity.

EA thanks the AEMO for the opportunity to comment on the Engineering Report's Technical Requirements for 200kW to 5MW DER Connections consultation paper (AEMO consultation paper). We recognise and support AEMO's initiative in forward planning the power system to ensure that the growing level of distributed energy resource (DER) connects to the network in a way that does not adversely impact power security or reliability.

However, we are also cognisant that the application of technical standards on small scale systems, particularly those sub-1MW, substantially increases costs, complexity and erodes value from its installation and operation (including via orchestration). These issues must be weighted against the need for individual standards and the benefits that standards application would provide to the broader system. In addition, EA notes that historically, it has been challenging to implement consistent, predictable and fair connection processes (including connection requirements) across distribution networks. While we appreciate that there may be technical nuances that require some modification by distribution network operators (DNSPs), our strong preference is for the application of any technical changes or additions to be implemented consistently via changes to the regulatory framework rather than through a standalone AEMO guideline to execute requisite (but not mandatory) DNSP adoption. Where this is not possible, DNSPs should be required (with support from AEMO) to seek AER approval for modifications from their regulatory connection obligations, to minimise regional complexities and maximising the benefits from this process.

Further, EA also highlights the significant volume of work related to DER/CER currently underway by governments and other market bodies. This includes several reforms and market reviews being considered by the AEMC, including their broad 'Electricity pricing for a consumer driven future' review, as well as the Federal Government's CER Roadmap. While we acknowledge that the AEMO consultation paper has a separate and narrower objective, it nevertheless intersects and must appropriately interact with these other reforms to ensure a coordinated approach.

With respect to the technical requirements proposed in the AEMO consultation paper, EA's general position is that if IEC TS 62786-1 (IEC standard) is being considered (in-

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part) for adoption as an Australian Standard and applied to systems in the NEM, AEMO should rethink this adoption process. Introducing specific technical standards from the IEC without consideration of how the IEC standard works as a whole will likely introduce more complexity, costs and confusion over any proposed benefit. Instead, we would suggest that AEMO considers how to introduce the full IEC standard as an Australian Standard and then seek appropriate domestic modifications in consultation with industry. Additionally, if AEMO intends to seek implementation of the IEC standard as an Australian Standard, industry consultation must make clear how the entire standard (with modifications as appropriate and necessary) will impact the DNSP connection process from an implementation perspective. For example, acknowledging that the IEC standard will not be straightforward to modify for the NEM, clarity is needed on the degree of effort necessary to achieve new DER connections – does it make the process longer, more expensive or harder to achieve? How is this balanced against the need for

In terms of the proposed technical requirements, we note the following views:

- The ride through settings are important parameters for OEMs and DNSPs but present implementation and measurement-through-performance challenges. A clear methodology for determining when these apply and how performance is verified will be necessary.
- The proposed ramp rate limit of 20% per minute for battery energy storage systems could negatively impact the commercial operations of these assets. While we understand that some DNSPs don't impose a limit or set them as proposed, a consistent approach is necessary. EA supports the proposal however, recommends that AEMO reconsiders its implementation until there is are greater volumes of BESS and that sufficient evidence demonstrates the need to protect the power system.
- Active Power Curtailment (via remote signal), Remote Monitoring and Frequency Response (with deadband) currently applies to grid-scale systems via SCADA and as such we support its implementation to smaller systems. However, implementation should not occur to systems smaller than 1MW and the droop requirements should provide a sufficient range (i.e. a wide deadband) to avoid unnecessary costs and operating challenges to smaller systems.

EA looks forward to working with AEMO on further efforts in this space. If you would like to discuss this submission, please contact me on 0422 399 181 or Dan.Mascarenhas@energyaustralia.com.au.

Regards

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