7 October 2021

Andrew Swanson
Senior Advisor
Australian Energy Market Commission

Submitted online at www.aemc.gov.au

Dear Mr Swanson

Re: Consultation paper, NATIONAL ELECTRICITY AMENDMENT (GOVERNANCE OF DISTRIBUTED ENERGY RESOURCES TECHNICAL STANDARDS) RULE 2022, ERC0319/RRC0040

SA Power Networks welcomes the opportunity to respond to the above consultation paper on the Governance of Distributed Energy Resources Technical Standards rule change request submitted by the Energy Security Board (ESB).

As the Distribution Network Service Provider (DNSP) for the state at the forefront of DER uptake nationally, SA Power Networks understands the challenges and opportunities arising from the increasing uptake of DER by Australian energy customers. We understand the key role that current and future DER technical standards will have in enabling the ongoing transition to distributed energy in a way that delivers the greatest long-term benefit for energy users. Common standards will help customers to get the most value from their DER investments, and also help ensure that DER can be actively integrated with the grid at both distribution network and system level. This will be key to enabling very high levels of DER to operate actively as part of the energy system without exceeding the technical 'operating envelope' of the distribution network or the system.

Over the last three years SA Power Networks has been actively working with the DER industry, the Australian Energy Market Operator (AEMO), the Australian Renewable Energy Agency (ARENA) and others to help progress DER standards on a number of fronts, including as a founder member of the cross-industry DER API Working Group now convened under ARENA's Distributed Energy Integration Program (DEIP), which is working to standardise the application of the IEEE2030.5 smart DER standard in Australia (CSIP-Aus).

As a member of Energy Networks Australia (ENA), SA Power Networks supports and endorses the positions put forward by ENA in its response to this consultation. Our specific feedback on the issues raised is as follows:

1. We are generally supportive of efforts to improve the governance of DER technical standards in the National Electricity Market (NEM).

2. In the time since the ESB's rule change request was submitted in September 2020, one of the key issues driving the rule change has been resolved. In February 2021 the AEMC made a rule that addressed the ESB's most urgent concern, the need to accelerate the adoption of the new system security provisions in AS4777.2:2020. The February 2021 rule change, which will come into effect in December 2021, incorporates the requirement to comply with

AS4777.2:2020 into the standard connection agreement for basic micro embedded generators defined in the Rules. As the most pressing issue has now been addressed, we would urge the AEMC to take the time to carefully consider what broader changes to DER standards governance may be beneficial.

3. The ESB's rule change proposal states that "the key concern with the overall Standards Australia process is that it is often slow. This means it is not fit for purpose given the fast-changing nature of DER technology and markets". However, it goes on to raise the concern that Standards Australia relies on a consultation process that is "too short and opaque" compared with the AEMC stakeholder consultation process. This illustrates the dilemma with standards development: finding the right balance between preserving the level of technical rigour and thorough stakeholder consultation required for standards that are critical for the safe, secure and efficient operation of the electricity system, and being able to adapt promptly to changing needs in a rapidly evolving energy sector.

4. We support the role of Standards Australia as the body responsible for standards development. We should seek opportunities to improve the efficiency of Standards Australia processes and to address any concerns with Standards Australia's approach to stakeholder consultation, but these are unlikely to materially accelerate the process; the development of high-quality national standards takes time and extensive consultation.

5. We share ENA's view that there may be merit in a new governance body with the role, not of developing standards, but of establishing a clear forward plan for DER standards development nationally. This could include:

    a. conducting regular reviews with industry stakeholders to identify key standards that may need to be updated and gaps where new standards may be required;

    b. helping to coordinate, align and prioritise the standards development process, including coordination of the activities of industry working groups such as those operating under the ARENA DEIP program;

    c. identifying relevant industry guidelines, jurisdictional regulations or other instruments that could be adopted nationally under the NER to complement formal Australian Standards; and

    d. working with industry to ensure that changes in standards can be progressed quickly where necessary, but without imposing timelines that drive excessive cost or are unachievable.

6. We would support the establishment of a new DER Standards Governance Committee similar to the existing Reliability Panel to undertake this role, so long as:

    a. The Committee has adequate representation from all key stakeholders, in particular (i) the DER industry, who must implement and support any new technical standards and align their product development efforts with corresponding international standards in other markets, and (ii) DNSPs who must connect DER and integrate DER with their networks. DNSPs have a key role in determining technical standards for parties connecting to the distribution network. DNSPs have a detailed understanding of local distribution network issues, and need to set connection standards that are reflective of these local operational requirements, as well as the broader obligations, risks and customer considerations DNSPs carry;

b. The scope and remit of the Committee are tightly defined, including a clear definition of 'DER' for the purpose of the Committee's scope;

c. The Committee is chaired by an independent DER expert and makes decisions by consensus; and

d. The standards themselves are developed by appropriate expert sub-committees through suitably rigorous and consultative processes. Where possible, the Committee should support, utilise and enhance existing Standards Australia sub-committees and processes.

7. We agree that AEMC would be best placed to convene such a Committee.

8. We do not favour adding these responsibilities to the existing Reliability Panel.

9. We note that the ESB has made recommendations in relation to the development of a broader approach to DER integration in the NEM through their proposed Maturity Plan and Implementation Plan. We understand that some stakeholders have considered whether the Maturity Plan co-design concept could be used to address DER Governance. We would not support this approach. The Maturity Plan Pilot consumed significant time and effort from industry stakeholders but failed to engage effectively with an important and technically complex issue. As the ESB's final recommendations leave many details of the proposed Maturity Plan process undefined, and as the Maturity Plan Pilot did not deliver outcomes that were endorsed by either industry or consumers, we are not yet confident the Maturity Plan model will deliver the required outcomes.

10. We would support the inclusion of DER technical standards in the Rules by reference to a subordinate instrument maintained by the Committee, based on our understanding that the subordinate instrument would call upon standards established by Standards Australia, but also possibly other technical standards or specifications that are not yet incorporated in Australian Standards, such as the Australian Implementation Guide for IEEE2030.5 currently being developed through the cross-industry DER API Working Group convened under ARENA's DEIP programme, DNSP technical connection requirements, or AEMO-specific technical requirements in relation to system security. We would hope over time that these would be formalised as Australian Standards, to avoid a proliferation of different standards-making processes.

11. We think that such a subordinate instrument could be helpful in balancing the need for flexibility in the Rules to allow for the timely adoption of new best-practices in a rapidly evolving energy system, without a protracted Rule change process each time, against the critical need for fulsome and rigorous consultation and consensus in deciding on standards that may have wide-ranging impacts across many different stakeholders.

12. The issue of compliance goes beyond the AER's role in ensuring that DNSPs comply with their obligations under the Rules; it is important to ensure that customer DER installations are compliant to relevant standards at the time of installation and remain compliant over time. Poor compliance to DER technical standards leads to reduced efficiency, reduced hosting capacity, increased system security risk due to less predictable behaviour during system disturbances, lost customer value and inequity in service levels. Consideration of compliance and enforcement should go hand-in-hand with the development of new standards, and this is an area where a new governance body can add value.

13. Given their unique role in the connections process for DER and the on-going operation of the network to which DER connects, there is both the need and the opportunity for DNSPs to play a greater role in ensuring compliance. To date, DNSPs have tended to rely on certification processes such as the CEC's inverter approval process. There is little active compliance auditing of DER, and DNSPs are not resourced to do this. Any changes in responsibility in this regard would have to take into account DNSPs' regulated funding cycles, as DNSPs would need to seek approved allowances from the Australian Energy Regulator through their 5-year revenue determinations to fund any new ongoing compliance activities. We note that one area in which DNSPs could contribute to compliance enforcement could be through analysis of data from DER connected to DNSP data interfaces or, where DNSPs can access it, smart meter data, in conjunction with DER approvals and connections data. These opportunities will need to be explored in the context of the expanded role of the Clean Energy Regulator (CER) so that roles, responsibilities and obligations of all parties are clear.

If the AEMC would like to discuss any aspect of our response, please contact Bryn Williams, Network Strategy Manager at bryn.williams@sapowernetworks.com.au or on 0416 152 553.

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