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27 July 2020

Mr David Feeney
Executive General Manager, Networks, Transmission and Distribution Networks
Australian Energy Market Commission
Level 15, 60 Castlereagh St
Sydney NSW 2000

Dear Mr Feeney

Re: Consultation on DER Technical standards rule changes

Thank you for the opportunity to comment on the Distributed Energy Resources (DER) Technical Standards rule changes.¹

Overview

The AER acknowledges the challenges associated with the increasing penetration of DER that were identified by Australian Energy Market Operator (AEMO) in its rule change request. These include system security and reliability challenges.

In principle, we consider that minimum technical standards for DER will enable power system operations to be managed so that the power supply remains secure and reliable for energy consumers.

However, the introduction of minimum technical standards for DER equipment may introduce significant additional costs into the supply chain, which will ultimately be paid for by consumers.

Any DER standard should therefore be subject to a rigorous assessment of options, costs and benefits, to ensure that it is:

- consistent with National Energy Objective (NEO) and does not impose unnecessary costs on consumers

¹ National Electricity Amendment (Technical Standards For Distributed Energy Resources) Rule 2020, National Energy Retail Amendment (Technical Standards For Distributed Energy Resources) Rule 2020

- the most efficient option to address the identified policy issues.

This process should involve a high level of consultation with stakeholders,

South Australian Government DER consultation

The South Australian Government is currently consulting on five matters² relating to high DER penetration, including a technical standard to address minimum demand issues. This standard is intended to be operational in late 2020.

The interoperability challenge that AEMO is seeking to address through the rule change request is currently specific to South Australia. We would encourage the AEMC to carefully consider whether the development of separate standards by AEMO may unnecessarily duplicate the South Australian Government's proposed measures.

The Energy Security Board (ESB) is currently consulting on the longer-term governance of DER technical standards³, including the introduction of a DER standards governance committee. The committee, which will be established by 2021, will be best placed to manage regulatory risks and oversee DER technical standards in the longer term. This committee will be able to develop interoperability standards before system risks relating to DER become an issue in other jurisdictions.

We have provided a submission to the South Australian Government on the five consultation matters. The AEMC should consult with and, where necessary, coordinate with the South Australian Government on these issues to avoid duplication and overlap.

Please see our specific responses to the issues raised in the consultation paper below.

Setting the initial standard/costs and benefits

We agree that AEMO should set the initial technical standard for cyber security and inverter performance as a means of addressing these system security issues that are associated with high levels of DER penetration. We note the Council of Australian Governments Energy Council (COAG EC) has endorsed AEMO taking on this role.

Although minimum technical standards can address the system security issues that AEMO has identified, they can also impose significant costs across the supply chain that consumers will ultimately bear – including higher meter, wiring, communications and inverter costs, as well as additional costs to other parties such as meter coordinators, AEMO and Distribution Network Service Providers (DNSPs).

A minimum standard should only be implemented if it meets the NEO, is timely and represents the best option available. AEMO should therefore consider alternative and complementary options.

To ensure the costs and benefits of a range of policy options are properly explored, the rule should require that AEMO undertake a regulatory impact assessment, or similar rigorous analysis of the costs and benefits of possible policy interventions, before determining to implement a standard.

² Government of South Australia – Department of Energy and Mining. Consultation on Regulatory Changes for Smarter Homes.
http://www.energymining.sa.gov.au/energy_and_technical_regulation/energy_resources_and_supply/consultation_on_regulatory_changes_for_smarter_homes

³ COAG Energy Council - Governance of Distributed Energy Resources – Consultation.
<http://coagenergycouncil.gov.au/publications/governance-distributed-energy-resources-consultation>

The rule should also require AEMO to undertake a substantial level of consultation as part of its standards development process.

In addition, we encourage the AEMC to consider whether the rule should provide for an independent body to review AEMO's standards development process, to ensure that consultation processes are adequate and that the options/cost benefit analysis is robust.

Subject to an appropriate assessment of customer impact, we agree that minimum standards for inverter performance and cyber security should be inserted into the minimum content requirements for connection contracts, negotiation frameworks and model standing offers or terms.

The existing Rules provide an appropriate framework for updating connection contracts, negotiation frameworks and model standing offers.

However, it is not clear at this stage whether any cyber security standard could be workably implemented through a minimum technical standard – insufficient information has been provided on this point to date.

We do not object to the proposed definition of DER, but note the risks of creating a definition when technology is evolving rapidly. As far as possible any definition should be capable of extension to new technologies that may become available.

We agree that standards be prospective, but note that there may be circumstances where the option to retrospectively implement a technical standard may have a low or zero cost.⁴

Scope of the initial standard

As noted, consultation on the development of a national body to govern DER standards is now underway. This DER governance committee will be the best-placed body to develop minimum technical standards on an ongoing basis.

This body will represent a range of stakeholder views and expertise, including consumer views, and will bring a broad understanding of DER issues and impacts to the development of standards.

We agree that the scope of the initial technical standard should be limited by the National Energy Rules (NER) and that AEMO's role should be an interim one, until such time as the DER governance committee is operational.

As noted, an independent body should review AEMO's processes to ensure that adequate consultation processes have been followed and options/cost benefit analysis has been robust.

Implementation and compliance monitoring

The lack of specific detail about the AER's proposed role makes it difficult to comment on the feasibility and resourcing implications of taking on such a role. However, we note there are risks and costs associated with different enforcement and compliance options, and these should be considered as part of the regulatory impact/cost benefit analysis for any proposed standard.

⁴ See for example, Enphase, Hawaii https://www.pv-tech.org/news/enphase_remote_upgrades_microinverters_in_hawaii_for_grid_integration

AEMO's rule change requests states:

To support the obligations, AEMO recommends that the AER develop light-touch monitoring and compliance framework, primarily for the purpose of transparency. This could be done through a minimalist periodic reporting framework (possibly a light touch version of the AER's Electricity Distribution Ring Fencing reporting framework). This could be integrated within an existing DNSP reporting framework, including jurisdictional network management plans.

Under chapter 5A of the NER, the AER currently approves connection agreements between DNSPs and customers to ensure these are fair and reasonable and comply with the requirements of the section. This is an established and contained business-as-usual activity and the AER that has been effective in ensuring that connection agreements meet the appropriate standards.

DNSPs would be required to resubmit Model Standing Offers to the AER that include the revised technical standards. This would represent a minor change to an established AER activity, and would be an effective, low-cost option to ensure that DNSPs are complying with the standards.

However, AEMO proposes that an approach similar to the Ring Fencing framework should be adopted. Under this approach the AER requires distributors to provide annual non-compliance reports. This has the potential to add significantly to costs as distributors would need to undertake some form of inspection of DER equipment.

We consider that a preferable approach might be to require DNSPs to publish DER technical requirements and installers to certify that standards have been complied with, through existing electrical compliance processes.

This would support an improved level of overall compliance and reporting, while not imposing significant new costs on DNSPs. However, it would be necessary to ensure that state and territory electrical certificate and reporting requirements are consistent with AEMO's requirements.

The costs of potential compliance and enforcement frameworks should be considered as part of the regulatory impact/cost benefit analysis. We would expect the AER would be consulted about costs and impacts as part of this process. Any new or expanded roles for the AER would need to be funded.

Yours sincerely



Mark Feather
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Sent by email on: 27.07.2020