Clean Energy Council submission to the AEMC Consultation Paper: Review into Consumer Energy Resources Technical Standards

Executive Summary

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Commission (AEMC) Consultation Paper, *Review into Consumer Energy Resources Technical Standards*.

The CEC is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as accredited designers and installers of solar and battery systems, to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC is pleased that the AEMC is undertaking a review of the Consumer Energy Resource (CER) Technical Standards even given the limited scope that focuses on compliance, which is a critical issue.

However, compliance is not the only concern and while we note that Interoperability standards are the subject of an upcoming Energy Security Board paper, determining roles and responsibilities with regards to the consistent treatment of technical standards will be critical to underpin any successful compliance and enforcement approach. An efficient approach would be to create an independent national body (or repurpose an existing national body) to manage compliance and enforcement.

A clear roadmap for CER technical standards is essential and we encourage the AEMC to consider developing one as a matter of urgency. This will help guide the industry and expedite the integration of CER into the wider energy landscape and market.

Determining whether CER complies with current technical standards will require access to a variety of data. As the Review makes clear, smart meter data from Victoria has been used to assess compliance, however smart meter rollout and Distribution Network Service Providers (DNSP) access to that data is limited beyond Victoria. The current AEMC Review of the regulatory framework for metering services (EMO0040) will need to ensure that if the responsibility for CER compliance with technical standards rests with the DNSP that the DNSP have the data needed to make an assessment.

The AEMC suggest there are a range of reasons for why noncompliance with AS4777.2:2020 can occur at the installation stage. The AEMC's preliminary conclusion, that the most likely reasons for non-compliance with AS4777.2:2020 are due to the difficulties associated with commissioning, is indicative of the need to further invest in the training and regulation of installers and broaden the outreach of information provided to the industry.

We would be very happy to discuss these issues in further detail with AEMC and to facilitate engagement with CEC members as part of the Review. We look forward to contributing further to this important area for progressing CER integration.

1. Focus on Compliance

The revised AS4777.2:2020 came into force in late December 2021 and so there is not quite a year's worth of data to assess and the AEMC assessment is heavily dependent on data from Victoria where smart meters dominate and the smart meter data is available to the DNSP.

The proposed assessment framework for the review of compliance and enforcement of technical standards appears broad, but reasonable.

We strongly support developing a nationally (NEM-wide) consistent approach to compliance, enforcement and rectification. However, DNSP and jurisdictional requirements may make a uniform approach difficult. For instance, currently, there are three variants for volt/var settings in Australia dependent on DNSP[1]. These differences complicate ensuring that installers can easily transfer their training and experience between jurisdictions and DNSP network.

We agree that the AEMC may be limited in its ability to compel jurisdictional regulators and bodies to adhere to a nationally consistent framework, but the positive outcomes for the wider system and safety mean that an outcome that is adopted by jurisdictional regulators should be pursued as a priority.

While addressing system-wide risk is an important consideration, the cost of implementing a compliance framework on consumers, either directly for those with CER or via increased system costs to deliver the approach, should be determined to ensure that the benefits to all consumers are sufficient to merit the costs. Additionally, consumers can react rapidly to negative messaging that might imply restrictions on their ability to adopt CER and so care is needed to avoid any implementation of the compliance framework driving unintended consumer behaviour.

Compliance of old installations, pre-December 2021, may still present a system and network risk before any replacement or retirement. As such, this raises the question: how will any compliance approach apply to old systems?

We are concerned at the potential complexities introduced by the AEMO rule change proposal to introduce Flexible Trading Arrangements via a secondary meter behind the primary meter and connection (ERC0346: Flexible trading arrangements for consumer energy resources) for CER, on any compliance measures.

Additionally, while compliance with AS4777.2:2020 is important, being able to adequately adjust CER export dynamically is likely to be only achieved through compliance with interoperability standards that will support the use of dynamic operating envelopes. We believe that flexible connections that are managed dynamically by the DNSP are likely to have a much more positive impact on the ability for the distribution network to accommodate more deployments of CER, without the need for investment in augmentation. We note that the ESB has published a paper on interoperability but developing a nationally consistent approach to interoperability is likely to have a greater impact on delivering increased small-scale clean energy capacity than ensuring compliance with AS4777.2:2020.

2. Source of Non-Compliance

There is an important role for accreditation and training in supporting compliance with technical standards and a nationally consistent approach and implementation timeframe would undoubtably make delivering compliance more straightforward.

However, given the developing requirements in each jurisdiction or differing requirements from individual DNSP, for instance, the new requirement to facilitate dynamic export control, the complexity of ensuring installations meet technical standards is increasing.

[1] https://www.energynetworks.com.au/projects/national-grid-connection-guidelines/power-quality-response-mode-settings/

The CEC has developed a new suite of nationally accredited training for installers, which covers site visits, system design and installation that will be introduced shortly. However, additional jurisdictional or DNSP-specific training is required, and the CEC continues to work with DNSP, jurisdictional regulators, manufacturers and installers to develop training in a rapidly evolving environment. A nationally (NEM-wide) consistent approach to compliance would ensure these educational systems already in place remain relevant, beneficial and applicable to installers nation-wide.

Additionally, determining compliance is difficult without access to data, regardless of who is the responsible party. Data availability to determine non-compliance is increasingly critical and it is essential that data via smart meters is made available to underpin an assessment of compliance. The current AEMC Review of the regulatory framework for metering services (EMO0040) will need to ensure that the appropriate metric and resourcing are available to DNSP, if DNSP are the responsible party for CER compliance with technical standards.

3. Enforcement critical

Determining non-compliance with technical standards is only the beginning of a compliance process. The AEMC is clear[2] that the DNSP is the responsible party for determining whether CER complies with technical standards via the connection arrangements. However, once non-compliance is identified the DNSP has only one approach, which is to disconnect the non-compliant CER. This is a blunt approach which is not straightforward to deliver in the absence of a smart meter (may require a visit to site) and a rectification framework needs to be developed to allow non-compliance to be addressed under a specified (nationally consistent) process.

In order to successfully deliver compliance monitoring, the DNSP (or any other responsible party) will need to have the resources, people, and access to data to undertake that role and it is not clear if DNSP are ready operationally or if the regulatory framework supports funding of this expanded role.

It is not clear who would be the responsible party for rectifying a non-compliant CER installation and who is the party to oversee and monitor the rectification process. The DNSP is unlikely to have the necessary permissions and authority to remediate customer-owned equipment. The installer may be an appropriate responsible party to rectify any non-compliance, but this may not be possible depending on the longevity of the installer.

The CEC operates an installer accreditation process, whereby CEC accredited installers must comply with all relevant Australian standards, CEC guidelines, applicable laws, regulations and codes of practice This includes complying with network regulations when connecting to the grid and government rebate, grant or incentive scheme requirements. See more about their obligations here. The CEC's compliance procedure relating to CEC-accredited installers includes a rectification process for noncompliant installations, but often notification of non-compliance via the Clean Energy Regulator or responsible jurisdictional body is over a year after the installation was completed. Additionally, the CEC nor the Clean Energy Regulator nor the jurisdictional body would have access to data that would confirm non-compliance with technical standards such as AS4777.2:2020. That data would likely come via a smart meter or direct from an inverter (where supported).

4. Interoperability is crucial

Getting interoperability correct is crucial to many of the key aspects of managing and integrating DER. Both this Review and the ESB Interoperability paper focus almost entirely on compliance, rather than ensuring that interoperability is achievable.

There can be no dynamic export and import limits, no equitable approach to ensuring system security at times of minimum demand and no flexible connections, without interoperability and data. Remote

[2] https://www.aemc.gov.au/sites/default/files/2022-09/220928_emo0045_consultation_paper_-_public_version.pdf, page 24

management of inverters to underpin system operation is only one facet of interoperability. The option to remotely upgrade inverter settings and remotely determine compliance would both be facilitated through interoperability and we encourage the AEMC to focus on how compliance might be detected and managed using remotely available data, rather than focusing on the need for compliance.

5. Roles and Responsibilities are both missing

While we agree that compliance is a critical issue, it cannot be addressed without assessing the roles and responsibilities for DER technical standards. There are many different parties with a role in DER deployment and integration from state governments, electrical safety regulators, to installer and retailer accreditation bodies, to the DNSP and AEMO, to the Clean Energy Regulator. Yet none of these parties has oversight of the entire landscape and without this oversight no single party can be held responsible for or has the tools to determine whether an inverter is compliant or not. On top of that, there is no single party that has the scope in responsibility or the means to take enforcement action when an inverter is non-compliant.

Given the number of parties involved, consistency of approach, interpretation of standards (which varies between and within parties) and achieving compliance will always be difficult. Essentially, without "mapping" the current arrangements and the multiple parties involved, there can be no route to the answer for "how" we deliver compliance.

6. National Coordinating Body

Placing technical standards in the NER does not deliver compliance and given the variety of actors and lack of consistent interpretation, understanding what compliance is, remains difficult. We would support giving a national body, that is independent, the role and responsibility of overseeing compliance and enforcement and believe that this can be achieved with minor additions of roles and responsibilities to an existing national entity, underpinned by the required inputs from other participants.