



Clean Energy Council submission to the ESB Directions Paper: Interoperability Policy for Consultation

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Energy Security Board (ESB) Directions Paper, *Interoperability Policy for Consultation*.

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 key priority principles that should be addressed with regard to CER technical standards are:

- 1) Improve compliance with current standards, which will support system security and network operation;
- 2) Implement a consumer protection framework to support choice by and protection of consumers;
- 3) Provide industry confidence by ensuring that all work on CER technical standards is coordinated through a single market body rather than multiple market bodies; and
- 4) Ensure consistency of approach to CER standards and compliance through a single national entity for CER technical standards.

Interaction with AEMC Review of CER Technical Standards¹

While interoperability is a key issue ensuring Customer Energy Resource (CER) compliance with DNSP connection agreements is a higher priority. Without an enforceable compliance framework, CER installations may not necessarily meet any required standards, including CSIP-Aus for interoperability. As such the ESB's work on interoperability should be delayed until the completion of the AEMC Review into CER Technical Standards (EMO0045) and a compliance framework implemented, since it is likely that many of the final decisions from the AEMC work will be directly applicable or will directly impact the ESB's work on interoperability. The two pieces of work are strongly inter-related and should be progressed by a single market body, the AEMC.

Consumer Protection

A consumer protection framework for CER has not yet been developed or implemented. The ESB developed a risk assessment tool, and the AER is currently consulting on a new framework to support customer protections for future energy services, however the AER work

¹ https://www.aemc.gov.au/sites/default/files/2022-09/220928_emo0045_consultation_paper_-_public_version.pdf

will not reach a conclusion before August 2023². It would be preferable if a customer protection framework was in place prior to enabling third-party control of customer assets.

Communication and Control

The ESB seems largely focused on control of inverters by third parties, rather than communication with inverters. CER encompasses many devices that have no inverter, such as larger household appliances that can represent significant flexible load. This includes, for example, hot water systems, some heat pumps and potentially EVs. Flexible customer loads also provide an opportunity to deliver benefits to both the customer and the system by managing those CER, for example through behavioural demand response or through a tariff (e.g. load control tariffs in Queensland enabled via audio frequency load control (AFLC)), with both offering benefits to the customer for providing a service to the system.

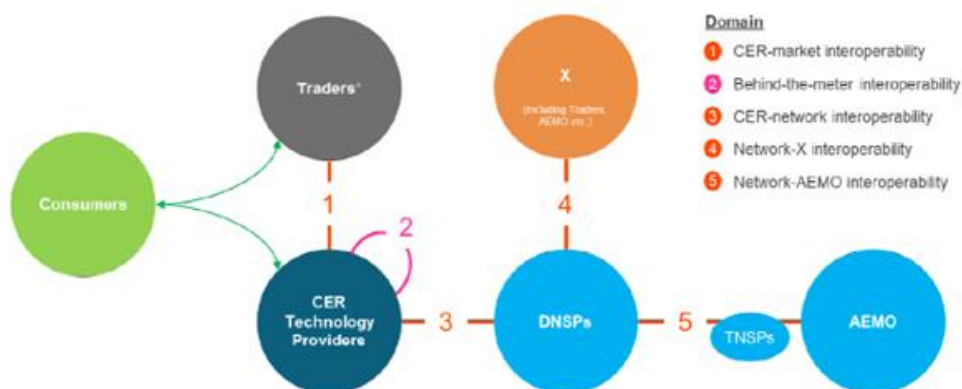
Customers should have the ability to “plug and play” new devices as well as provide seamless transfer between traders, should the customer wish to participate in the market or have flexible exports. Communication protocols, not control protocols, will deliver this customer choice and protection.

Since interoperability can be delivered via a number of different routes, such as relays, hardwired, the internet (cloud), mobile network, AFLC etc., it is not as necessary to prescribe the mode of communication, if the format of the communication is standardised.

It is important to recognise that many customers may not have access to the internet or good mobile coverage. This is likely to prevent some approaches to third party control of CER. It does not prevent customers from benefiting from their CER through behind-the-meter coordination (CER-CER) using agreed communication standards or from benefiting from load control approaches (e.g. AFLC, or behavioural), since these approaches are not dependent on the internet or mobile signals.

Figure 5 should be revised to reflect the need for any third party such as a trader, DNSP, AEMO or CER provider to secure social licence for access to CER. The CER provider is likely to have engaged with the consumer at installation commissioning of the CER. Currently, in the diagram, the consumer is not involved with their CER:

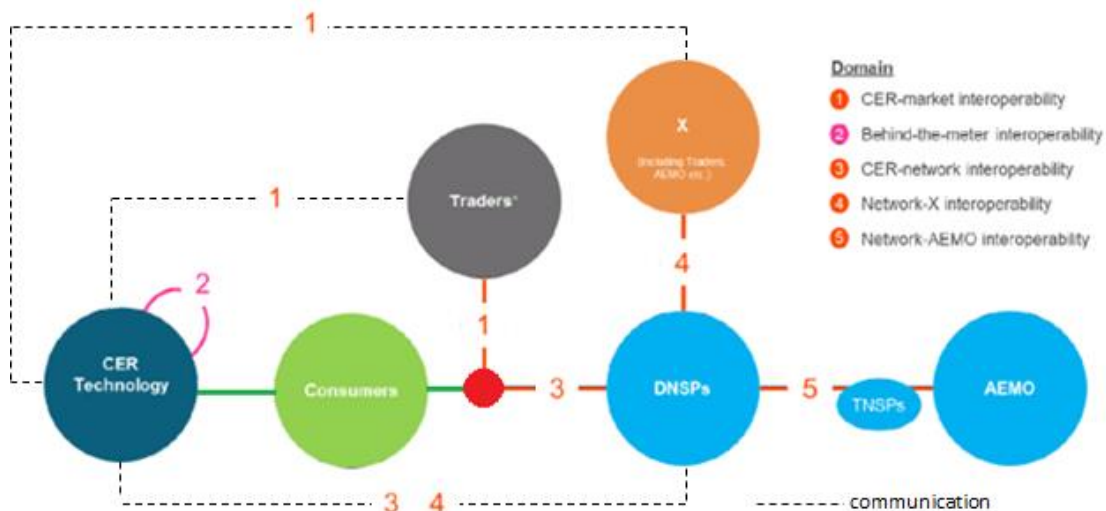
Figure 5: consumer energy resource interoperability domains (incorporating the dynamic export limits use-case)



² <https://www.aer.gov.au/retail-markets/guidelines-reviews/review-of-consumer-protections-for-future-energy-services/update>

The essential role of the consumer should be recognised in Figure 5 by visually representing the need for the domains (third parties) to go through the consumer to access the CER:

Note: The Trader may also be the CER Provider and the red dot is the connection point. Note also that CER installations must comply with the connection agreement, at this connection point. The dashed black lines indicate direct communication (and potentially control) with the CER, for which customer permission will be needed.



Industry Standards and the NER

As the AEMC Review into CER Technical Standards³ identifies, only 30-50% of new inverters comply with AS4777.2:2020, even though this standard was placed in the National Electricity Rules (NER) in February 2021 and the standard commenced in December 2021. The insertion of a standard in the NER has not resolved compliance issues.

We recommend that no further CER technical standards are placed in the NER until practical experience has delivered confidence in any given standard and a compliance, enforcement and rectification framework for CER standards has been developed. Additionally, it is important to recognise the role that installers have in delivering compliance and to ensure that communication, education and training makes installers aware of requirements. Further, the ESB should await the outcomes of the AEMC Review into CER Technical Standards before making any decisions on mandating CSIP-Aus either in the NER or elsewhere.

National body to oversee DER-related standards

It is critically important that CER technical standards are developed and revised collaboratively, as well as applied consistently across Australia. Consistency in application and interpretation is essential to ensure efficient inverter (and non-inverter) development by inverter manufacturers, without the need to tweak settings for each individual state or network. Consistency in the application and interpretation of standards will also facilitate compliance.

We strongly support giving a national body, that is independent of DNSP and AEMO, the roles of CER technical standard development, revision and interpretation. This national body should also have the responsibility of overseeing compliance and enforcement. We believe that, at least initially, improvements in standard compliance can be achieved with minor additions of

³ https://www.aemc.gov.au/sites/default/files/2022-09/220928_emo0045_consultation_paper_-_public_version.pdf

roles and responsibilities to an existing national entity, underpinned by the required inputs from other industry participants, such as installers and DNSP.

In the longer term, an independent national body should have responsibility for a CER standard development strategy, and the interpretation, compliance, and enforcement of standards to give industry, installers and customers the confidence to invest.