Anna Collyer
Chair
Energy Security Board

8 February 2022

Dear Ms Collyer,

The DER API Technical Working Group welcomes the opportunity to provide feedback in response to the Energy Security Board (ESB) Interoperability policy consultation paper.

The Working Group was formed in 2019 as a collaboration of Australian energy sector businesses from across the supply chain, including numerous distribution networks, retailers, equipment manufacturers and aggregators. The aim for the group was to develop a consistent technical approach to communicating dynamic export and import limits (also known as dynamic operating envelopes) between DNSPs and customers or their aggregators. This work culminated in the release of the CSIP-AUS IEEE 2030.5 implementation guide version 1.0 in August 2021.

The implementation guide has been tested in various ARENA funded DER implementation trials including the *evolve DER project* and *SA Power Networks/ AusNet Services Flexible Exports trial* and is soon to be required for Energy Queensland's *Dynamic Connections* and made mandatory for all new connections as part of the SA Governments *Dynamic Export Requirements*. More recently, Standards Australia have commenced a process to adopt the CSIP-AUS as an official Standards Australia handbook through standards Australia committee EL-062 – Smart Energy.

As the group responsible for CSIP-Aus, we look forward to working with the ESB during this consultation process. While we are supportive of the development of an assessment framework that considers the entire policy landscape around DER interoperability, we believe that some initial consultation during the framework development process would have clarified the intent of CSIP-Aus and particular decisions taken during its development.

Alignment of Consultation Process with CSIP-Aus Intent

The intent of CSIP-Aus is to ensure that implementation of (future) network requirements for the dynamic management of connection limits is consistently implemented across jurisdictions within Australia and broadly aligned to similar initiatives elsewhere. As such, the features incorporated in it are considered to be the necessary conditions to achieve this requirement. While the assessment framework provides an opportunity to consider the application of this guide in the context of the overall policy landscape, we would note that:

- some assessment criteria are not within the scope of the guide (for example, market participation was considered through the way in which Dynamic Operating Envelopes enable market participation, but the integration of aggregators with markets was out of scope). While these are important to consider in the overall policy landscape, it may be difficult to assess CSIP-Aus alone in this context.

- assessment criteria may be referenced or alluded to in CSIP-Aus but are left to implementation decisions. For example, while we agree that consumer impact - equity and acceptability must be at the core of DER policy, the guide itself does not take any position on this. It is an implementation concern of the implementing parties (in this case networks) to ensure that their implementation considers this appropriately.

- assessing technical features of CSIP-Aus independently against these criteria may be useful, but it is important to consider the feature set as a whole in the achievement of a particular outcome - in this case, the dynamic management of DER that may enable greater uptake.

We would also note that the ongoing work with Standards Australia is to develop a handbook which in itself cannot not mandate implementation. A mandate would need to come from elsewhere such as a state government or other governing body.

The Layered Architecture of Interoperability

While we support the ESB's intent to examine the role of interoperability in achieving customer outcomes, we see interoperability as being a layered architecture that encompasses a number of factors:

- Interoperability between on-site devices, which supports the ability of new entrants to the market to provide services on top of existing equipment

- Interoperability between aggregator platforms, allowing customers to churn between providers in a competitive market, and

- Interoperability between a network and aggregators/device controllers, including both the ability of the network to manage equipment in compliance with network requirements, regardless of the controlling party, and

- Interoperability between different networks, allowing aggregators/device providers to use the same technologies and communication protocols to communicate across multiple networks

While CSIP-Aus is concerned with interoperability, it is predominantly the latter 2 concerns that led to its development. We believe it is important to consider the purposes of enabling interoperability at various layers, and determining the most appropriate suite of policies that will effectively achieve this. We believe that CSIP-Aus will form a part of this, but the key to achieving customer outcomes will be the targeting of specific policies to achieve desired outcomes at all layers of interoperability.

To achieve the ESB's stated goal of customer portability between providers and prevent customer 'lock in', additional technical standards will need to be mandated to ensure open interoperability at the:

- Aggregator to customer site interface; and

- Local communication at the DER device to enable open co-ordination of devices behind the meter.

These interfaces are shown in the diagram below.
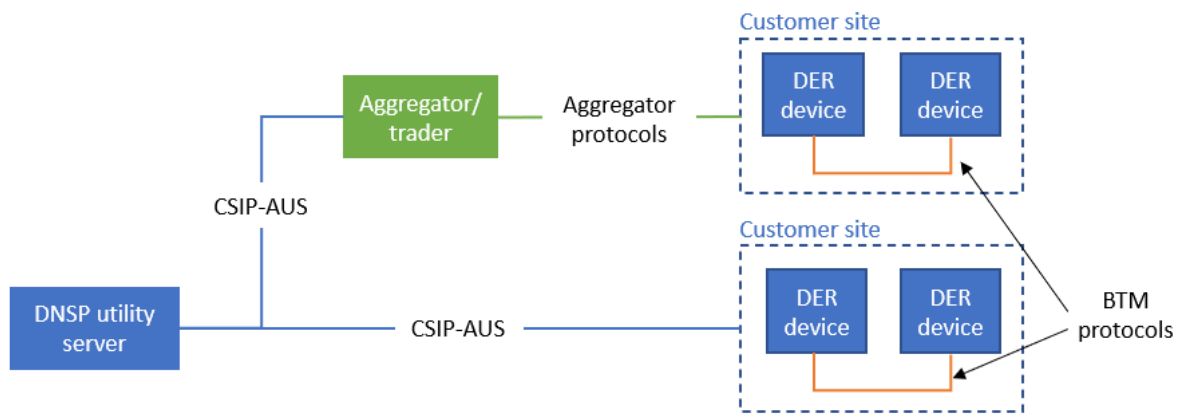
The DER Integration API Technical Working Group welcomes the opportunity to work with the ESB and provide technical input to the standards assessment framework and any other processes seeking to mandate interoperability standards.

Kind regards,

DER Integration API Technical Working Group

Note: *this submission represents the majority consensus of the participants in the working group, but does not necessarily represent the views of all organisations constituting the group.*