

17 November 2022

Anthea Harris
Chief Executive Officer
Energy Security Board

By email: info@esb.org.au

Dear Anthea

Interoperability policy consultation – Submission to the directions paper

AusNet welcomes the opportunity to provide this submission to the Energy Security Board's (**ESB**) directions paper on the development of an interoperability policy, starting with the policy direction around the Australian adaptation to the Common Smart Inverter Profile IEEE 2030.5 Implementation Guide for Smart Inverters (**CSIP-Aus**) that provides capability to deliver dynamic operating envelopes (**DOE**) and flexible export limits.

Through our industry-leading EDGE project and our Flexible Exports trial, we have been using IEEE2030.5 to deliver flexible export limits to inverters, via utility servers and through aggregator platforms communicating to DER via gateway devices. Our trials and resulting learnings have been used as input into the development of CSIP-Aus, shaping a communications standard that is fit for purpose in Australia. As contributors to the development of CSIP-Aus, we are confident this communication standard is appropriate for a wide-scale implementation of DOEs. We therefore support development of an implementation policy that will provide clarity of standards and ensure the use of CSIP-Aus is effective at delivering anticipated customer and market benefits.

We support a national mandate for 'flexible export ready' installations from 1 July 2024 using CSIP-Aus

A national mandate is the most effective approach to standardisation of technical standards and is consistent with the implementation of other standards like Australian Standards (**AS**) 4777.2:2020.

This mandate should allow for multiple communications models, as shown in Figure 6 of the directions paper. Allowing for multiple communications models enables more customer choice and facilitates the market for innovative solutions. Alternatively, requiring all inverters to have the CSIP-Aus capability within the inverter from 1 July 2024 would lead to higher costs to consumers and limit competition among OEMs.

The 'flexible export ready' mandate should be extended to grid-scale distributed energy resources (**DER**), including grid-connected community batteries. This would ensure that small scale grid-connected batteries are subject to the same connection conditions as other behind-the-meter DER, creating competitive equality amongst the two technologies and allowing grid-connected DER more flexibility in export capacity if connecting in a constrained area.

We consider the mandate would be most effective if implemented through jurisdictional legislative instruments, to ensure obligations are placed on the appropriate licenced entities in each jurisdiction. Implementing the mandate in the National Electricity Rules (**Rules**) would likely result in similar lack of clarity of roles and responsibilities as with the implementation of AS 4777.2:2020.

Internet connectivity is key to unlocking the full value of flexible exports and aggregation services

The use of CSIP-Aus for its intended purposes is conditional on a functioning internet connection to the inverter. While we do not consider connectivity should be prescribed, we propose the ESB undertake a cost-benefit analysis of various options, to identify and recommend the most beneficial model and develop a policy direction that promotes that option.

Consideration should be given to the latency, reliability and redundancy requirements that might be reasonably required from the communication choices by each customer, as these will emerge as key issues in a future where millions of devices are required to respond to controls and relay information with minimal delays or disruptions. Consideration should also be given to who has ongoing responsibility for maintaining

connectivity and how customers get support when intermittent communications have detrimental customer impacts.

National consistency in the roll out of CSIP-Aus will reduce implementation cost

A single trusted national body should be responsible for digital device certificate management and product whitelisting, to simplify the process for the OEMs and technology providers and reduce the cost of implementation and support. To reduce the burden of setting up a new technical regulator, we propose the existing scope of the Clean Energy Regulator is extended to the implementation of CSIP-Aus, and other similar technical standards in the future.

However, OEMs that already provide inverters in Australia that are 'flexible export ready' and have gone through full or partial certification with some distributors like SA Power Networks, should have those certified functions recognised by other distributors in Australia. While there may be some minor testing required across the distributors, or additional functions certified, these OEMs should not be required to get new certification with each distributor separately, or to get a new certification with the newly established national body. Requiring multiple certifications for existing OEMs will lead to higher costs of implementation and slow down the transition.

Further, the national body should also be required to certify any network systems used to communicate with customers' inverters through CSIP-Aus (e.g., utility systems that communicate DOEs). This would lead to greater national consistency across the distributors and reduce the cost of certification of various systems used by the networks.

Please do not hesitate to contact me on sonja.lekovic@ausnetservices.com.au about the submission.

Sincerely,



Sonja Lekovic
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