Energy Security Board (ESB)

Sent via email to: info@esb.org.au

14 February 2022

Dear ESB Team

Energy Security Board – Interoperability Paper for Consultation

Tesla Motors Australia, Pty Ltd (Tesla) welcomes the opportunity to provide the Energy Security Board (ESB) with feedback on the "Energy Security Board – Interoperability Policy for Consultation: Stage 1 Inverter Based Resources".

Interoperability for distributed energy resources (DER) is a critical concept and requires a great deal of thinking around all aspects of its implementation – consumer impacts; costs of deployment; technical development work that needs to be done to build out the communications frameworks to aggregators; control and command pathways; and the interaction with commercial arrangements as DER starts to play a more active role in different markets.

Tesla supports the ESB's continued focus on DER reforms and commends the ongoing approach to strong stakeholder engagement. However, Tesla has several concerns with the Consultation Paper put forward by the ESB:

1. There is no clear policy intent that is outlined in the Consultation Paper aside from some comments that "openness" and interoperability are desirable. It does not highlight any particular barriers or customer issues that this Consultation Paper is trying to solve – as noted across all ESB work programs, problem identification is a critical Stage 1 element.
2. It appears to only focus on the technical communications pathways that have been developed by the CSIP-Aus Working Group and does not consider the other considerations that will need to feed into the development of an interoperability policy.

CSIP-Aus was developed for a very specific purpose – providing distribution network system providers (DNSPs) with visibility of DER and establishing active management through the provision of import and export limits. Using CSIP-Aus for any other purpose will require a dedicated review of the use cases being proposed.

Tesla recommends that the approach that the ESB can take in future consultation on interoperability is a detailed consideration across all implementation aspects highlighted above. We recommend that the ESB focus on clearly articulating the problem statement and policy intent, and then explore the policy inputs that are needed to expand the interoperability framework beyond the scope of the current CSIP-Aus, rather than using CSIP-Aus as a de-facto framework for all future DER interoperability requirements in Australia.

Specific areas that Tesla thinks the ESB could add value are:

1. **Roles and responsibilities:** who does the ESB intend to build out an interoperability framework? It is unclear who will do the development work, and how the ESB sees interoperability as fitting into existing regulatory frameworks.

2. **Interoperability use cases:** what are the current and future use cases that are likely to require control of DER?
3. **Control versus command signals:** Tesla's preference is for any commands to be sent via API to an aggregator to then manage the response of individual DER devices in their portfolio. If the ESB is considering any alternative approaches then these should be consulted on.
4. **Market integration:** how does interoperability interact with DER playing a more active role in market services. What considerations need to be given to ensuring that aggregators using a portfolio of DER for contracted or market services have visibility if a customer churns to another service provider?
5. **Customer protections:** what customer protection frameworks need to exist? How can DER aggregators contract customers for a period of time in order to provide contracted or market services (as mentioned above)?
6. **Commercial arrangements:** CSIP-Aus sets out a common inverter language and communication interface for DNSPs to communicate with aggregators but does not address the commercial approach of doing so. For the purposes of CSIP-Aus, aggregators are incentivised to integrate with DNSPs to receive dynamic export signals, because the alternative static signals create a worse customer outcome. Noting that there are development costs and significant human resources that go into all API integration work, the ESB should consider the commercial realities of a more detailed interoperability policy.
7. **Costs:** related to the above, the ESB should consider the costs of establishing API pathways for the interoperability use cases outlined in point one, particularly if there is an expectation that multiple OEMs will integrate with multiple aggregators. Separately if customers are required to install third-party pieces of equipment to manage their devices, what is that cost? And is there sufficient customer choice in the market at the moment?
8. **Cyber security:** what cyber security arrangements need to be introduced to manage increased interoperability. The ESB Consultation Report touches on cyber security requirements, but these should be an adjacent and complementary consideration to interoperability and will need to adapt to consider the specific use-cases.
9. **Timelines:** where the ESB is considering introducing new product standards, the implementation timelines should be extremely clear to provide industry with enough time to respond.

For more information on any of the points raised in this submission please contact Emma Fagan (efagan@tesla.com).

Kind regards

Emma Fagan