Submission to Standards Australia committee EL-054 with respect to draft standard AS4755.2:2019

October 29, 2021

The Electric Vehicle Council (EVC) welcomes the opportunity to contribute to the public comment process on draft standard AS4755.2:2019, administered by the Standards Australia.

The Electric Vehicle Council is the peak body representing the interests of the electric vehicle industry. Among other stakeholders, our membership base comprises vehicle manufacturers, vehicle sales organisations, charging equipment manufacturers and suppliers, upstream electrical equipment manufacturers and suppliers, fleet operators, EV charging orchestration software providers, energy networks in distribution and transmission, and energy retailers.

We acknowledge that the draft AS4755.2 standard as written does not include EV charging, which we are pleased to see. We have noted efforts over a period of time by various parties to bring EV charging within scope of AS4755, so considered a response from the Electric Vehicle sector to this draft to be prudent at this time.

In particular, we noted the COAG decision RIS from November 2019, and would echo the feedback provided by the federal government Office of Best Practice Regulation in this matter. The level of analysis in the RIS is not adequate nor commensurate with the potential economic and social impacts of the proposal. Significantly more work needs to be done, inclusive of consideration of consumer options and consumer behaviour around vehicle charging before any mandate around demand response capability for EV charging equipment is reasonable.

The position of the Electric Vehicle Council is that AS4755 would be a poor instrument for the purpose of bringing EV charging into a demand response framework. Multiple globally and locally proven solutions exist to address the challenges that EV grid integration has the potential to pose in Australia in future, and there are multiple current ARENA funded trials[1][2][3][4] testing various solutions for applicability and fit to the Australian market. These existing solutions include:

- ToU pricing and solar feed-in-tariff rate setting. It's very easy for drivers to shift their EV-related energy use temporally for the benefit of the electrical network, if they have an incentive to do so. Local research form top-tier universities[5] indicates that it is highly likely to be highly effective at addressing the issues of both peak demand and minimum demand.

[1] https://arena.gov.au/projects/agl-electric-vehicle-orchestration-trial/

[2] https://arena.gov.au/projects/origin-energy-electric-vehicles-smart-charging-trial/

[3] https://arena.gov.au/projects/jemena-dynamic-electric-vehicle-charging-trial/

[4] https://arena.gov.au/projects/realising-electric-vehicle-to-grid-services/

[5] https://www.researchgate.net/publication/355444278_Electric_Vehicle_Charging_Consumer_Survey_Insights_Report

- Messaging to consumers during times of peak demand, to request behaviour change. Schemes of this nature have been running successfully since 2015 in Australia and have scaled up across tens of thousands of consumers in the last few years. Examples include United Energy's 'Summer Saver', Powershop's 'Curb your Power', and Energy Australia's 'Power Response'

- Direct-to-vehicle orchestration. The vehicle is a smart device too. An orchestration solution that reaches out to the vehicle to secure changed charging behaviour may well prove superior to orchestration of the EV chargers, because it will work in cases where the vehicle is connected to a standard powerpoint.

- OCPP-based orchestration. OCPP is the de-facto communications standard used by EV chargers globally. It has the capacity to deliver all the DRM modes applicable to capabilities that an expansion of AS4755 to cover EV charging would reasonably seek to deliver if centralised orchestration proves to be the best way to go.

This list is not exhaustive, and it is to be expected that in this emergent space, more solutions will arise globally with applicability to this challenge. Locking ourselves in to a single solution unique to Australia would not be prudent at this time.

The global experience in markets that are 10-15 years ahead of Australia in EV uptake has been that grid impacts associated with EV charging are negligible until vehicles make up a significant proportion of the fleet[6]. Given that we are adopting EVs at the slowest rate of any OECD country, and the fastest-adopting countries are not seeing significant grid impacts yet, we have many years in hand before it is necessary or prudent to mandate specific requirements in this domain. The trials running now should provide insight into the best paths forward in this space for our country as and when it becomes necessary to address this challenge.

In short – we have time in hand to get this right, there is no need to rush to regulate, and there is certainly no need for unique Australian standards in this space. The Electric Vehicle Council stands ready to engage with any and all stakeholders in this space to work towards solutions that work best for our country.

[6] https://www.nordicenergy.org/wp-content/uploads/2018/05/NordicEVOutlook2018.pdf