10 February 2023

Energy Security Board

By email: info@esb.org.au

Dear Sir/Madam,

RE: Electric Vehicle Supply Equipment Standing Data – Consultation paper.

CitiPower, Powercor and United Energy welcome the opportunity to respond to the Energy Security Board's (ESB) Electric Vehicle Supply Equipment (EVSE) Standing Data – Consultation paper.

Australia is undergoing a profound energy transformation as it shifts towards a lower emission future. Electric vehicles (EV's) and specifically, EV charging will play a significant role in that transformation, and it is important that our networks are able to accommodate the increased level of demand that EV's will require.

It is critically important that distribution businesses have access to reliable data on the size, location, and characteristics of EVSE. This will assist us ensuring our network is capable of efficiently undertaking network modelling and forecasting to ensure that any investments are efficient and prudent.

In our submission we contend that:

- EV visibility is critical for distribution networks
- the Australian Energy Market Operator (AEMO) distributed energy resources (DER) register should be expanded to capture EVSE standing data
- the Clean Energy Council (CEC) and Clean Energy Regulator (CER) must be involved in enforcing compliance
- incentives based schemes must be considered to drive higher levels of reporting compliance
- only necessary data should be captured and placed on the expanded AEMO DER register
- data sharing between vehicle registration bodies and AEMO is needed and will assist with identification of trickle charging.

These matters are further discussed in the attachment.

Should you have any queries please do not hesitate to contact Trent Gibson on 0498 318 036 or trgibson@powercor.com.au.

Yours sincerely,

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ATTACHMENT

1 EV visibility is important for distribution networks

Improving the visibility of EVs on our networks is important in ensuring our networks have the capacity to support additional load, particularly in communities where EV ownership may be concentrated.

We have begun to develop our own capability to identify EVSE and manage EV charging, so that we may better understand when, where and how customers charge their EVs.

These initiatives include:

- developing smart meter data algorithms to detect when, where and how customers are charging their EVs. We are developing an automated system to detect, with high probability, the data profiles consistent with EV charging which will pick up the 70% of customers who don't use dedicated or smart EVSE. This will assist with future network planning to efficiently target network augmentation in an efficient and prudent manner for customers
- updating our connection policies based on our interpretation of the current Service Installation Rules under which the EV can be considered a 'battery energy storage system' and to ensure EVSE installers apply to us for a connection agreement on behalf of their customers. We appreciate that only around 30% of current EV buyers install a dedicated EVSE so this will only capture some of the EVs being charged by our network
- participating in two trials to identify EV charging behaviour in collaboration with other industry participants. The EV Grid trial being managed by Jemena and the EV Orchestration Trial managed by AGL and Origin, are both providing insights into customer behavioural responses to a series of demand response and price signals, which will inform our understanding of customer charging profiles on our networks.

However, these initiatives do have limitations with respect to the quality and quantity of data we are able to collect. Ideally, these initiatives would be used to complement a nationally consistent EVSE standing data collection approach.

2 The AEMO DER Register should be expanded to capture EVSE standing data

We support expanding the existing AEMO DER Register to capture information relating to EVSE. This will ensure there is a single nationally consistent database of information about DER devices installed across Australia at residential or business locations.

As pointed out in the consultation paper, the AEMO DER Register was created to include additional technologies over time, and we do not believe that EVSE possess any unique characteristics from other DER devices that necessitate its own separate and unique database.

We also believe that building upon the existing AEMO database will be the most expeditious solution to capturing EVSE standing data. This is a key consideration as EVSE is already being installed and the longer it takes to develop a register and efficient processes to capture EVSE data, the greater the amount of EVSE standing data that will need to be retrospectively identified and captured. We expect this will create additional issues with respect to incomplete data sets.

For these reasons we do not consider it appropriate to develop a separate register for EVSE which would result in unnecessary administrative efforts and cost.

However, while we are supportive of expanding the AEMO DER register to capture EVSE data, we believe that any expansion provides an opportunity for AEMO to learn from previous issues encountered with capturing DER data.

Consideration needs to be given to ensuring that there are high levels of reporting compliance for EVSE installations, as without this we will be left with an incomplete register of EVSE supply equipment that will have significant shortcomings for any uses of that data by AEMO and/or distribution network service providers.

It is also important that any updates to the AEMO DER register takes into consideration flexible trading arrangements and Low Voltage Distributed Energy Resource Management System (LV DERMS) requirements to prevent costly rework and efficient integration.

3 The Clean Energy Council and Clean Energy Regulator need to be involved in enforcing compliance

We believe there needs to be strong oversight and governance arrangements with respect to installers of EVSE. Installers are critically important to ensuring the EVSE standing data is accurately captured during the installation phase. The Energy Security Board (ESB) has noted capturing data at the installation phase could result in greater than 95% coverage of future EV charging loads.

The installation of EVSE with an electricity circuit rating of 15 Amps or more is the most desirable reporting trigger, as it is the transparent trigger for customers to understand, can be applied nationally, and has the potential to achieve high levels of reporting compliance. Limiting the EVSE to be registered to EVSE with an electricity circuit rating of 15 Amps or more will ensure dedicated EVSE standing data is captured.

Given the significance of installer compliance and EVSE reporting, we support a governance model whereby the CEC's industry body role in administering the New Energy Tech Consumer Code (NETCC), which is designed to cover new and emerging technologies, is expanded so that it also covers EVSE installer accreditation with the CER being responsible for enforcement.

To this end, we believe the following is required:

- give the CER responsibility for setting eligibility requirements for an installer accreditation scheme
- implement reporting requirements for EVSE installers
- give the CEC responsibility for the development of an EVSE product database to minimise manual data entry for installers
- give the CER more effective powers to monitor and enforce compliance, including the ability to suspend installers who are failing to comply with EVSE standing data reporting requirements
- develop customer information to help customers navigate the EVSE market.

We believe these measures will ensure installers are accountable with respect to reporting requirements. In their absence, there is little incentive for them to meet their obligations.

Further, we believe that the CER and CEC are the bodies most suitable to oversee enforcement of technical standards with EVSE installers given their capacity and expertise in this space. The CER and CEC are also already heavily involved with inverter compliance and other DER registration requirements.

4 Incentives based schemes must be considered to drive high levels of reporting compliance

The ESB has succinctly summarised the limiting aspects of the regulatory framework. [1]

[1] ESB Electric Vehicle Supply Equipment Standing Data Consultation – December 2022 – Page 51-52

We believe that one of the ways to overcome these issues is to provide customers with incentives to have their EVSE recorded on the AEMO DER register.

Incentive mechanisms will be important when it comes to driving compliance from customers with EVSE standing data reporting requirements. Without incentives, distributors only option to enforce compliance is the disproportionate response of suspending a network connection.

One such incentive mechanism could be to preclude customers from receiving any EV tariff which may be developed in the future until such time as the distribution business has been provided evidence that their EVSE has been registered with AEMO.

Such an incentive would allow distributors to develop materials for installers so that they are aware of their obligations to inform the relevant distribution business once EVSE has been installed, so that the customer may be placed onto the relevant EV tariff.

We also support incentive-based schemes in the form of rebates for newly installed EVSE. Rebate schemes will drive EVSE installer accreditation with the CEC. However, any rebates should not be issued until evidence has been produced that EVSE has been registered on the AEMO DER register.

We believe that incentive schemes are effective, as they provide customers with a readily identifiable benefit for seeking out compliance with respect to an obligation they are unlikely to know exists. If EVSE is not registered, and customers do not receive the rebate or EV tariff they had expected, there is a direct and clear reason for customers to follow up with their installer to have the issue rectified. Conversely, the heightened threat of customer follow-up is also likely to drive installer compliance so that they are not required to rectify non-compliant works.

5 Only necessary data should be captured and placed on the expanded AEMO DER register

We agree with the ESB that it is important to strike an appropriate balance when collecting data to ensure that any data collected is limited to data which has clear and valuable use case. We are supportive of the general tests and considerations for data collection which the ESB has outlined.[2]

However, one specific data set that we believe is important to capture is a specific 'V2G capable' data set as future firmware updates could unlock this capability on existing chargers, and it is critical for us to understand where V2G chargers are located.

Regarding data collection more generally, we are supportive of the ESB's approach to breaking down the data fields to be collected into two categories, installation data and EVSE data.

Installation data will be important to ensure that installers are required to input as little data possible to optimise data accuracy and minimise human error and effort in data entry. We also believe installers should be consulted on any installation data entry required with trials run to identify any teething issues.

As outlined above, we consider it appropriate that the CEC be responsible for maintaining and developing the EVSE database. The CEC has experience in developing these databases and has done so previously with respect to inverter models.

[2] ESB Electric Vehicle Supply Equipment Standing Data Consultation– December 2022 – Page 24, Table 2

6 Data sharing between vehicle registration bodies and AEMO is needed and will assist with identification of trickle charging

We believe that the various motor vehicle registration bodies should be required to share data relating to EV's with AEMO. This also means reducing barriers to accessing existing data sets in line with ESB data strategy reforms.

Effective data sharing would provide AEMO with a database of all EV's in Australia together with the registered address of each electric vehicle.

The provision of this data would also be significantly helpful in identifying locations where EV charging is happening without the installation of EVSE, such as trickle charging. Level 1 trickle charging customers may decide to purchase a level 2 EV charger in the future and understanding this potential can assist network planning activities.