



# Clean Energy Council submission to the ESB Consultation Paper: Electric vehicle supply equipment standing data

## Executive Summary

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Energy Security Board Consultation Paper: *Electric vehicle supply equipment standing data*.

The CEC is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as a range of stakeholders in the National Electricity Market (NEM), to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC understands the need for EV charging data to inform network modelling and forecasting necessary to guide planning processes of the energy sector and the planning of EV infrastructure.

We strongly support the collection of sufficient data using an approach that creates accurate and usable records and that is efficient so as not to disincentivise EV uptake in any way.

Australia is a relatively small market where EV uptake has so far been slow, nevertheless it is slowly increasing. There is time to develop a well thought out mechanism and platform to collect and retain the data to maximise the benefits of that data.

The consultation process should consider alternatives to using the Distributed Energy Resource Register (DERR) and compelling electricians, who install charge points, to input the data:

- The DERR is already an inaccurate representation of DER.
- Electricians/retailers manually inputting data is not likely to be accurate, is not future proof and there are other ways of collecting high quality data, more efficiently.
- The DERR to date has been populated with data tied to government incentive schemes, accuracy would be even lower where no incentive schemes are in place.
- Compliance for many aspects of DER is a challenge and ensuring that electricians will update the DERR will be a further compliance challenge.
- The DERR is not validated, e.g., how is data collected when EVSE is decommissioned?

Alternatively, we suggest consideration is given to:

- The ESB should wait for the outcome of the AEMC Review into consumer energy resources (CER) technical standards (EMO0045), which will detail approaches to support compliance for CER and the possible need for a regulator of CER technical standards before ruling on collection of EVSE standing data.
- Look to data from car registrations to establish locations.
- Add a question to the certificate of electrical safety electricians need to fill out every job.
- Request data from the EVs themselves (via OEM) during specific periods of interest in an area.

We recognise that our proposal does not hit all the desired data points, but it is critical that the data points that are collected are accurate to be of use and that the alternative methods suggested for collecting data will be sufficient, accurate and offer an easy adoption pathway.

#### **1. The DERR is not accurate**

Since the date of its inception, the DERR has been filled out by data entry workers at the DNSPs who are working off embedded generator pre-approvals and embedded generator install confirmations. This information has been collected over the previous 10 years covering the start of the solar boom and is largely on paper and scanned documents. Since then, it has been populated either manually by electricians or automatically by DNSPs depending on the state. This data is unlikely to be accurate to a high degree particularly due to the dependence on manual data entry.

#### **2. Electricians/retailers manually entering data will not be the way of the future**

The practicalities of requiring electricians to review their paperwork to input 11 data points is unlikely to provide a reliable data set that will underpin market and network operations. A method that extracts data from existing verified information sources will give a superior outcome. Leveraging data from certificates of electrical safety, car registrations or smart EVs will ensure accurate information.

#### **3. The DERR to date has been populated with data tied to government incentive schemes**

Electricians accustomed to interacting with PV incentive scheme operators such as the Clean Energy Regulator, STC brokers and the CEC have been well versed in the requirement to input accurate data or risk not being paid the rebate. With that in place, the DERR is still populated with incorrect data. It is safe to assume data entry carried out by electricians unaccustomed to these requirements will be less accurate.

#### **4. Difficult to police**

There is not currently a regulatory pathway to penalise electricians found not to have filled in the DERR with this data or not entered data in correctly. This regulation would have to be written and would be difficult to enforce.

#### **5. The DERR is not validated**

Once data is inputted into the DERR it is not easy to maintain its validity. For example, when CER or EVSE is removed, there is no requirement to submit a certificate of electrical safety or signal that a site needs an inspection to verify the asset present. Additionally, without verification of data as it is inputted, the value and accuracy of the data will be eroded.

#### **6. Wait on result of AEMC review into CER Technical Standards**

The outcome of the review into CER technical standards and the potential creation of a national technical standards regulator will impact the responsibilities of different stakeholders in data collection and compliance.

#### **7. Leverage certificate of electrical safety processes**

As has been done in Victoria when air conditioning or a Solar Victoria installation has been carried out, a checkbox could be added to the certificate of electrical safety asking whether EVSE has been installed.

#### **8. Leverage car registrations**

Existing processes such as EV registration could also be leveraged. These options should also be considered by the ESB and should yield enough high-quality information for DNSPs and AEMO to use in their modelling.

## **9. Request data from EV OEMs**

Moving forward all EVs will be smart and connected. During periods of particular interest to networks, historic data could be requested from EV OEMs on what charge/discharge levels their fleet was carrying out at different times. It will be important to develop a framework that supports data sharing between EV OEMs and DNSP (and other entities) that does not result in increased costs to customers, while recognising that customers should have a right to freely access their own DER data in real-time. Australia should consider moving to an open data sharing principle like the UK, where it needs to be demonstrated why data should not be available publicly.

### **Commentary on the paper**

DER is increasingly “smart” and the widespread rollout of smart meters offers other routes to access DER data, including EV data, if appropriate frameworks for the sharing of data are developed. The work on EVSE is likely to be also dependent on the outcomes of the AEMC Review of the Regulatory Frameworks for Metering Services (EMO0040) and the AEMO rule change proposal for Flexible Trading Arrangements (ERC0346). Care is needed to ensure that all of these inter-related regulatory processes related to DER, including EV, deliver a seamless and efficient outcome for customers, that is efficient, without duplication, cost and complexity. Some of the currently proposed approaches have the real risk that costs to customers will be prohibitive and complexity will disincentivise the provision of data and flexibility.

We would be very happy to discuss these issues in further detail with the ESB. We look forward to contributing further to this important area of policy development and if you have any questions, please contact Michael Shaughnessy on [mshaughnessy@cleanenergycouncil.org.au](mailto:mshaughnessy@cleanenergycouncil.org.au).

## Responses to questions raised in the Consultation Paper

### 1. Are the key use cases for EVSE standing data adequately captured and described?

We understand why some EVSE standing data is required. The key use cases for EVSE standing data are adequately captured and described.

We do not support the way that the ESB intends to capture and store the data.

### 2. Are the listed considerations for data collection appropriate?

The considerations look good but the weight given to each has not been conveyed. Quests for data minimisation and reducing costs can endanger the usefulness of the resulting data set.

### 3. What data fields should or should not be collected and, why? What is the minimum set of data required to facilitate the above use cases?

The minimum data points that should be collected are: general location and import/export capability.

Location data down to the postcode level may be sufficient to make some assumptions on what kind of demand could be loaded onto a line.

Import/export capability would give a certain enough value to model on, notwithstanding the charging profile characteristic of the particular EV connected, or the use habits of the consumer.

Some other nice-to-have data points may be achieved by the eventual method of data collection agreed upon eg. certificate of electrical safety (NMI, phase, date etc.) or EV registration (address, ownership status, date etc.)

### 4. How can timely and accurate reporting of EVSE installation data best be supported?

By the cars themselves of course, though this would be expensive to do constantly, selecting periods of particular interest to DNSPs would likely suffice. The EVs themselves is the only way to get reporting on 10A (2.3kW) 'mobile' EVSE.

Outside of this, EVSE installation data will be best supported by leveraging existing processes such as certificate of electrical safety submission or EV registration paperwork.

Utilising an approach like this is preferred because:

- It comes at no extra cost to the owner,
- It does not rely on electricians,
- A digital approach leveraging existing, ratified processes should be more accurate,
- Cars being de-registered flags that an EVSE change may occur,
- CoES has the option to include existing EVSE,
- It would have minimal need for regulatory change.

### 5. What else could a National EVSE Database be used for, in addition to supporting EVSE standing data collection processes?

Targeted messaging (or advertising) to people with 'dumb' chargers, stating the benefits of upgrading the 'smart' EVSE or V2G chargers.

These benefits carry over to whichever database is eventually agreed upon.

### 6. What governance arrangements are needed to ensure the appropriate operation of a National EVSE Database?

Clear outlines of who should have access and what that access can be used for.

Fair policing of stakeholders supposed to be providing the data to the register.

**7. Are there any other reporting trigger that have not been considered?**

Other reporting triggers that should be considered are:

- EV registration
- Certificate of electrical safety checkbox, should include overcurrent protection capacity
- When an EV is sold (customer or dealership).
- When an EVSE is sold.
- When an aggregator is contracted (eg. ChargeHQ).
- When a control app is downloaded (eg. Tesla app)

**8. What other advantages and disadvantages should be considered when comparing available reporting triggers?**

Advantages – low cost, simple, accurate, automated, sufficient data, nationwide.

Disadvantages – disincentivise EV uptake, low compliance with inputting data into DERR

- Electricians entering data into DERR on EVSE installation:

Cost will be passed on to consumers, will be manual and of low accuracy if done at all. There will be lots of data points but of low quality. The requirement for regulatory change and regulatory compliance costs tax payers.

- EV registration trigger:

Low cost as already a process between government owned bodies, enough data can be collected for modelling and less regulatory work to do. New database to be shared nationwide.

- Certificate of electrical safety checkbox:

Low cost as already a process, enough data can be collected for modelling and less regulatory work to do. New database to be shared nationwide.

**9. Is it agreed that networks could impose a requirement for EVSE standing data reporting, through an amendment to the service and installation rules?**

Most of them probably could. They could also do it through the connection agreement with the customer. These are not the approaches that we are encouraging here.

**10. Is it accepted that an expanded DER Register should be the database system for collection and sharing of EVSE standing data?**

No, it may be better to start a separate one. The DERR will have V2G EVSE as it does now, but the rest of the EVSE which are just loads may be better managed elsewhere. In future there may be other significant loads such as hot water, pool pumps and air conditioners that will be 'smart', these should be kept in this separate database.

The DERR has been filled with inaccurate information since its inception. It's track record from there has fared no better. In some states such as Victoria, installers applying for a connection of CER with a DNSP are shoehorned into filling out the DERR and may rush through it. In other states such as SA, updating the DERR is done by the DNSP and so even solar installers have no familiarity with the process.

It has not been outlined how the DERR will be maintained when EVSE is decommissioned, this could lead to the data set no longer being timely.

Filling out the DERR or any database with the information of EVSE on a network only gives electrical engineers some numbers to feed into their formulas of how much load could be placed on a network under certain conditions. These are always just assumptions. What is really needed is data on what actually happens during certain conditions.

We may need to wait for the result of AEMCs Review of CER technical standards. Better defined roles and responsibilities may elucidate the path for EVSE and other significant load data collection.

**11. What preferences or issues do stakeholders have regarding the described regulatory options? If a rule change is needed to achieve EVSE standing data collection, do you consider the rule change would be likely to have a significant effect on the national electricity market?**

The major issue is compliance. As noted in the paper ‘increasing complexity of compliance requirements, coupled with a lack of perceived consequences/incentive to comply, is likely to lead some installers to provide incomplete or incorrect information’. This has been an issue with CER to date and that is with incentives in place, there are no incentives in place with EVSE. This will mean use of the dataset leads to inaccurate assumptions about the load that will be put on the network.

A rule change in and of itself does not have a significant effect on the NEM, if the rule change does not result in accurate data collection, use of that bad data could have an effect on the NEM and the efficiency of the transition.

**12. Is the proposed regulatory assessment framework fit for purpose?**

No, it has not been correctly shown that the collection of this data set or the way it will be collected, achieves the desired outcome.

The framework looks for simplicity and cost-effectiveness, but the weight given to the level of compliance expected is too low. Inaccurate data will lead to bad projections which could jeopardise the transition.

A solution that looks at actual EV load may require paying EV OEMs or EVSE OEMs but will give the required outcome. Actual EV load would only need to be interrogated at specific times of interest to the networks, which will keep costs down. Australia should move to a data sharing principle like in the UK, where it needs to be demonstrated why data should not be available publicly, rather than it being assumed that data be kept secret and must be paid for. We may need to wait for the result of AEMCs Review of CER technical standards. Better defined roles and responsibilities may elucidate the path for EVSE and other significant load data collection.