10 February 2023

Energy Security Board
By Email: info@esb.org.au

Dear Sir/Madam,

Response to Electric Vehicle Supply Equipment Standing Data – Consultation Paper

SA Power Networks is South Australia's sole electricity distributor, providing electricity to approximately 900,000 of our State's homes and businesses.

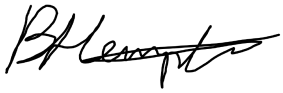
As part of our future network planning, we have forecast over 800 GWh of additional energy flowing through our network annually by 2030 - an increase of almost 10% - due to Electric Vehicles (EVs). By 2050, EVs will have increased energy throughput on our network by 50% and our network will be the primary distribution system for transport fuel for the State. The transition to electrified transport presents a great opportunity, but also a significant risk, if not managed well.

EVs are likely to be the largest load in a customer's home and, if not integrated well, will result in significant additional network investment and therefore costs for customers. We believe that having access to accurate, reliable data on the location and size of EVSE installed on our network is an imperative to enabling efficient planning and operation of the distribution network.

SA Power Networks has taken the first step in the collection of EVSE standing data, as the first DNSP in Australia to require application & registration of EVSE from July 2022. However, our records indicate low levels of compliance with this reporting requirement. Our submission to this consultation recommends a number of actions to ensure that compliance is a key focus of any future reporting requirement.

Thank you again for the opportunity to make a submission to this paper and participate in the development of policy that is critical to South Australia's energy consumers and the electricity network. If you wish to discuss this submission, please contact Liam Mallamo, Future Networks Engineer at liam.mallamo@sapowernetworks.com.au.

Yours Sincerely,



Brendon Hampton, Head of Network Strategy
SA Power Networks

Attachment 1 - Response to Consultation Questions

Section 2. EVSE standing data needs and use-cases

Consultation Question 1:

We think the DNSP use-cases are adequately captured and described.

Section 3. Draft EVSE standing data specification

Consultation Questions 2-6:

SA Power Networks supports the addition of EVSE data into the National DER Register. SA Power Networks supports the collection of the following data fields identified in in *Table 3* by the ESB:

- **1** Installer ID
- **2** NMI
- **3** Circuit rating (in amps) of all EVSE at NMI
- **5** EVSE make & model, selected from a list
- **6** Number of phases connected
- **11** Commissioning date

These datapoints are the minimum requirement for prudent network capacity planning, as well as providing an indication of the demand response or flexibility requirements of the device via knowledge of the make & model.

SA Power Networks supports the establishment of a National EVSE Database. We believe this will promote a consistent national approach for listing, administering, and validating functionality of smart EVSEs for network connection requirements, and jurisdictional requirements and incentives.

Section 4. Determining EVSE charger installations that should be captured

Consultation Question 7-9:

SA Power Networks supports the collection of EVSE standing data for all hard-wired EVSE installations above 15A. EVSE reporting triggers should be based on the *rated current* of the device, regardless of whether the device may be current-limited upon installation.

We feel that any EVSE below 15A should be considered as a typical household load, akin to any other load that a customer may plug into a standard outlet. Requiring data to be captured on EVSE below 15A would likely see responsibility fall onto a customer or the EVSE vendor, given that these installations are typically portable and unlikely to involve an electrician familiar with DNSP reporting procedures. SA Power Networks and other DNSPs are developing capabilities to detect EVSE activity based on smart meter data, and we expect that this capability is one step in achieving visibility of EVSE below 15A where required.

SA Power Networks has already introduced a requirement for reporting of EVSE installations above 20A single phase and 25A three phase, in the May 2022 revision of our Service & Installation Rules (SIR)[1].

[1] Service and Installation Rules; (sapowernetworks.com.au)

Clause 6.2.7 of the current SIR states that while the maximum single-phase switched load for a 100A supply or less is typically 20A, an exemption may be provided for EVSE installations when applied for via SA Power Networks' SmartApply application portal.

SmartApply contains a list of pre-approved equipment, with the main requirement being that the EVSE is able to communicate via the OCPP1.6J protocol. This list is updated as new devices come onto the market and are requested by installers. Auto-approval is granted for applications of pre-approved equipment at sites where our connection rules are met. EVSE that are not on this list, such as non OCPP1.6J capable devices, are still able to be installed, but auto-approval is not granted, and the installer is advised that the EVSE must be current-limited to 20A or less upon installation. The establishment of a national EVSE database would facilitate a nationally consistent approach to this.

The inclusion of an application or reporting requirement in the SIR is only one of many actions required to ensure accurate & consistent data capture. SA Power Networks' experience shows that an SIR requirement in isolation is not sufficient to drive compliance.

SA Power Networks supports the adoption of *Trigger 2,* reporting via state-based regulators in addition to SIR revisions and associated data capture via DNSP processes *(Trigger 5)*. Given that an electrician will be involved for all EVSE greater than 15A, this option will provide appropriate coverage. A federal mandate will likely need to be imposed upon state-based regulators to drive necessary process & system changes, as well as ensuring national consistency.

South Australia's state-based regulator, the Office of the Technical Regulator (OTR), manages the Electronic Certificate of Compliance (eCoC) process for electrical installations in South Australia. The OTR has published a Draft Technical Regulator Guideline - Technical Standard for Installation of Electric Vehicle Supply Equipment (EVSE)[2]. This Guideline will commence in South Australia on 1 July 2024. Section 5 of the Draft Guideline implies OTR willingness to collect and manage EVSE data, likely via the eCoC process.

Expanding the reporting requirements of the eCoC (and interstate equivalent) process to include EVSE data is the most effective way to ensure that *every* appropriate EVSE installation has reliable data capture. This is an existing process that installers are familiar with, and a minor expansion of data fields for collection is likely to be of minimal impact to an electrician installing an EVSE.

Our SmartApply process for EVSE is based on the process established for the connection of rooftop solar, which already integrates with the eCoC process in South Australia to capture certain data fields for the CER Register from the eCoC. Attachment 2 illustrates the SmartApply process, including the points of interface to the eCoC.

It should be noted that whilst some eCoC data is currently shared with SA Power Networks, additional data sharing requirements and systems will need to be put in place to enable the addition of EVSE data.

Similar changes are likely to be required to enable other DNSPs to receive this data from their relevant state-based regulator.

In addition to the aforementioned processes for capturing EVSE installation data, SA Power Networks also supports the sharing of a subset of *vehicle* registration data for EVs, between federal or state transport

[2] Technical-Regulator-Guideline-Technical-Standard-for-Installation-of-Electric-Vehicle-Supply-Equipment-EVSE.pdf (energymining.sa.gov.au)

authorities and DNSPs. Access to this data will provide DNSPs with visibility on where any form of EVSE may be, regardless of size.

Given the security of vehicle registration data and associated privacy concerns, our recommendation is that all DNSPs are provided, as a minimum, with aggregated data on the number of EVs per postcode in their distribution network areas, as we understand is occurring in Queensland. Access to this existing dataset would be extremely beneficial in enabling efficient planning for network capacity without introducing any additional overheads on customers or electricians.

Consultation Questions 10-12:

SA Power Networks recommends the expansion of the existing National DER Register to include EVSE data. This data should be collected by DNSP processes outlined in the relevant SIR, as well as safety certificates submitted to state-based regulators, as outlined in *Section 4,* before being shared to the National DER Register via existing processes as is the existing process for other CER. See Attachment 2.

Attachment 2 – Proposed process for EVSE capture in SA