

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

Dear ESB Team,

ESB Electric Vehicle Supply Equipment Standing Data - Consultation Paper

PLUS ES welcomes the opportunity to provide feedback to the ESB's Consultation Paper – Electric Vehicle Supply Equipment (**EVSE**) Standing Data.

PLUS ES is a registered Metering Co-ordinator (**MC**) and an accredited Metering Provider (**MP**) and Metering Data Provider (**MDP**) in the National Electricity Market (**NEM**). Our skilled, workforce provides metering services across Australia. Our customers range from small residential customers through to Australia's largest manufacturers and mining operators.

We acknowledge that the location and some characteristics of EVSEs are important inputs for network planning to ensure a reliable, safe, and efficient power system. As a service provider, we have reservations that the proposed EVSE standing data and reporting triggers could potentially impact the integrity of the data as well as add an administrative burden on the industry. Our feedback has been noted below for your consideration:

1. Draft data specification

Item	Details
National Meter Identifier (NMI)	<ul style="list-style-type: none"><li data-bbox="520 1464 1450 1585">• An EV installer may not have access to the NMI number at the site. Not all legacy metering boards have the NMI number displayed. This may impact the integrity of the data collected.<li data-bbox="520 1615 1450 1917">• The NMI to EVSE is not always a 1:1 relationship. There are current installation models where multiple EVSEs are associated with the one NMI. In these instances, a unique EVSE identifier associated with each asset, would deliver benefits. For example, a use case with multiple EVSEs in a shopping centre and a EVSE charger needs to be exchanged/upgraded. There needs to be a mechanism to identify the asset at the location and the associated details in the DER register.

Local/Remote energy management and Internet connected fields	<ul style="list-style-type: none"> • Needs clarification if this refers to the EVSE capability or to the specific communications which has been enabled. For example, the latter would deliver the biggest value if Dynamic Operating Envelopes (DOE)/curtailment of load were to be implemented. • Enabling of the communications will be a challenge for the installer to complete or maintain as: <ul style="list-style-type: none"> ○ The installer may not be aware of the communications as the EV's Charge Point Operator may be determining this. ○ Enablement of the communications with a dependency on the customer's infrastructure such as Wi-Fi, will not always ensure that the communications is enabled.
Phases	<ul style="list-style-type: none"> • Clarity is required if this refers to the EVSE capability or the EVSE installation.
EVSE standards	<ul style="list-style-type: none"> • Implementing standards for EVSE, such as physical or communications and interoperability capabilities/protocols would reduce the requirement to populate a significant number of fields. PLUS ES supports that the requirement to capture these fields would no longer be required.
Data Integrity	<ul style="list-style-type: none"> • The consultation paper states that the information only needs to be populated once. Consideration needs to be given to modifications of EVSE assets and the requirement to amend the registered data appropriately. • The larger the data set required to be collected the increased likelihood that the data integrity will be degraded. • Some of the information collected may be superfluous to the main requirements of Network Planning, and similar activities, where the more rudimentary information, such as the EVSE rating, could fulfill the requirement for such use cases. Information such as whether firmware is upgradeable or not is only a "nice to know" and may not be relevant if remote connectivity is not maintained by the customer.

2. Reporting triggers

PLUS ES supports an efficient process, accuracy of data recorded, and the registration of the EVSE details completed by the EVSE installer. To ensure completeness of information there needs to be a universal trigger which mandates the reporting and data registering upon

installation of a EVSE or modification of an existing EVSE asset. This simplifies the trigger obligation, streamlines the process, and captures the requirements of the other triggers.

The reporting trigger obligation should be mandatory. Without this, it will define the database as incomplete and therefore fail to meet the objective.

The additional feedback is provided in support of our proposal for a universal trigger:

- All triggers identified will not individually ensure 100% coverage of EVSE installations.
- Smart meter installers should not have a requirement to report the EVSE standing data as they may not be aware of the details pertaining to an existing EVSE. The metering installer may not have visibility to the EVSE or the presence of an EVSE at the site.
- Introducing triggers which limit the reporting to specified EVSE type/modes or circuit ratings will not cover the installation of all EVSEs. The accumulative load of multiple smaller EVSE loads, such as those of small market residential sites can equal or surpass the impact of higher capacity EVSEs. Hence, the requirement to collect EVSE data needs to be applicable to all EVSE installations.

3. Reporting mechanism

For a high uptake, the reporting mechanism needs to be digitalised, mobile and streamlined which enables the installer to provide the details required with minimal effort. This mechanism should capture new installations or updates to existing installations.

4. EVSE Database

Establishing a standalone EVSE standing data database will implement a cost burden on the industry.

PLUS ES supports that a national database should exist for Consumer Energy Resources (CER) with EVSE standing data as a subset. The current DER register and associated process needs to be reviewed and enhanced to deliver a sustainable market tool. Enhancements to include, but not limited to:

- Obtaining Network Service Provider (NSP) approval before progressing could be a barrier in the provisioning of the EVSE data. Decoupling the NSP requirement from providing the EVSE data upon installation, may have a better success rate. The NSP application/approval step can be a pre-requisite enforced through other regulatory mechanisms.
- Ensuring the Database is integrated with other market systems such as MSATS etc., ensuring one source of truth, and avoiding replication. Another enhancement is allowing visibility to parties that have a financial interest on the NMI. This visibility could support current or future use cases which involve CERs and associated installations for example.

5. Regulatory Framework

Ideally a nationally applied database and framework would ensure harmonisation across the NEM for all CER; not just EVSE. However, we acknowledge that there are upfront challenges and costs to operationalise.

PLUS ES supports a hybrid option which includes Option B and a national CER database as being a more readily achievable deliverable:

- Placing the obligation to provide the EVSE data on the electrician (EVSE Installer). This could be regulated via jurisdictional legislation with respect to the electrician’s license.
- This change should not be as substantial as the other options because electricians are regulated by the state and territory jurisdictions. There are established frameworks to more consistently and seamlessly introduce additional requirements for the electricians to meet. This option would deliver improved process standardisation to that of Option A.

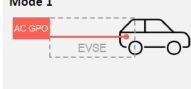
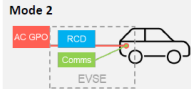
As a service provider with some dependencies on the customer to take an action, our feedback in addition to the noted limitations on Option A are:

- A requirement for a customer to provide information introduces a potential break in the process. There are currently obligations on the customer via the National Electricity Rules /National Electricity Retail Rules which are not enforceable, e.g. provisioning access to metering installations, testing requirements.
- The potential for each DNSP to add variances to the data set requirements and/or process, introducing additional complexity for service providers.

6. Appendix

PLUS ES notes the following with respect to Table 12: IEC EVSE Modes:

Table 12: IEC EVSE Modes

Mode	Description
 <p>Mode 1</p>	<p>In Mode 1, the EV connects directly to an AC mains (in Australia, this typically infers a standard 10 Amp general purpose outlet) without residual current detection (RCD) or over current protection. The lack of residual current detection has resulted Mode 1 charging is disallowed in the US, UK and a number of EU countries. There is no communication between the EV and the AC mains. While this sort of connection is not prohibited in Australia, it is considered very rare.</p>
 <p>Mode 2</p>	<p>In Mode 2, the EV connects to the AC mains. These are the typical residential EVSE that connect to a single phase, 10 Amp general purpose outlet drawing 7kW up to around 22kW with a 3 phase connection. Mode 2 EVSE requires a cable incorporating some form of signalling and residual current detection. The majority of EVs sold in Australia to date are equipped with a Mode 2 EVSE with some owners using them regularly. They typically incorporate an in-cable control box (ICCB), which effects standards-compliant signalling and fault detection (and may, optionally, incorporate external communications for a variety of purposes).</p>

- PLUS ES’s understanding was that Mode 1 would be available as a common ‘backup’ method of charging, albeit slow. We note that the paper states that it is a rare occasion and that was not our understanding.



- Mode 2: We also seek clarity on how 7kW could be drawn from a 10 Amp general purpose outlet as it should be limited to 2.3kW. The 7kW and 22kW are more indicative of an industrial 32 Amp socket outlet for single and three phase, respectively.

PLUS ES would welcome further discussions in relation to this submission. If you have any questions or wish for further discussion, please contact Helen Vassos on 0419 322 530 or at Helen.vassos@pluses.com.au.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Clark", is written over a faint, light blue grid background.

Jason Clark
Executive General Manager