

Addendum PLUS ES

Trial waiver application

2024

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Addendum – PLUS ES trial waiver application request for amendment - 5 November 2024

The Australian Energy Regulator (AER) has received a request from PLUS ES to amend its original trial waiver application of 29 August 2024. The amendments outlined below include an increase in the number of EV chargers to be installed and expansion of the trial project to South Australia. To accommodate responses from interested parties, we have decided to extend our consultation process.

We welcome submissions from interested parties on PLUS ES's trial waiver application by **close of business, 22 November 2024**. Written submissions or requests to make a submission via alternative methods (e.g. through a meeting with AER staff) should be emailed to regulatorysandbox@aer.gov.au.

Please note that the below information forms part of PLUS ES's trial waiver application and is the views of the trial proponent, not the AER.

The following request for amendment should be read in conjunction with the [Consultation Notice](#). A copy of PLUS ES's original application is included below at Attachment A.

Request for amendment

PLUS ES would like to amend its trial waiver application:

- from the NSW National Electricity Market (NEM) region to include the South Australia NEM region
- from 500 pole mounted electric vehicle charger (EVC) installations, to up to 1,000 EVC installations.

Rationale

Since the Consultation Notice's release, two distribution networks have approached PLUS ES about how it can apply the innovative metering installation proposed in the waiver application:

- Essential Energy (via a third-party retailer) would like to install EVC on up to 302 composite distribution poles and composite streetlight columns.
- SA Power Networks (SAPN) (via a third-party retailer) would like to install EVC on up to 10 Stobie poles.

PLUS ES had originally contemplated the waiver to be valued by charge point operators seeking NSW Government round 2 kerbside funding in eligible network areas, i.e. the Sydney metropolitan area, which is in Ausgrid's and Endeavour Energy's network areas.

Innovation anticipated from the expansion

Expanding the proposed trial to the following NEM regions will yield additional innovation benefits to NEM participants and AEMO in developing its updated Metrology Procedure to implement AEMC's 'Unlocking CER benefits through flexible trading' rule change.

These benefits include:

- Developing installation and electrical connection methods with a variety of pole types, including composite distribution poles, composite streetlights, and rectangular Stobie poles made of steel and concrete. Examples of innovation and learnings include:
 - For composite poles and streetlight columns the installation methods will be within the asset along with the chargers. This presents unique learnings which are distinctly different to externally mounted equipment, such as, understanding how the proposed EVC installation can be safely installed on conductive poles, which will require different controls for earthing protections. This is especially the case for Stobie pole installations that may be carrying a high voltage feeder.
 - Composite streetlight chargers provide increased learnings from applying EVC equipment on assets that are unutilised during parts of the day.
 - Enabling an EVCI approach that cannot be deployed beyond trial without compact metrology solutions, such as the small form factor required for within streetlight columns.
- Diversifying the learnings from the disparate climate and NEM regions, including remote and regional installations as the NSW Government kerbside charging grants are limited to the Sydney metropolitan area. For example:
 - Gaining sentiments from a variety of parking orientations and parking restriction types in different council areas, e.g. EV restricted parking, timed parking, and open parking.
 - Gaining learnings and sentiments from a variety of local government authorities who have different operating and governance structures.
 - Helping assess how the availability of kerbside EVC impacts the adoption of EVs in non-metropolitan areas of NSW and in SA – which is a commonly cited barrier to accelerating take-up.
 - Observing the charging behaviours of EV drivers when convenient and cost-effective charging is available outside of the Sydney metropolitan area, particularly if this relieves fast-charging use and gives additional justification for EV adoption.
- Helping AEMO understand how type 9 meters could operate for other types of street furniture such as traffic lights.

PLUS ES notes that the increased variety of pole construction materials and types, installation methods, locations, and stakeholder sentiments will ensure the trial results are more broadly applicable and future installations are streamlined for the broader benefit of market bodies and market participants.

Revised numbers

| DNSP network area | Approximate number of EVC installations by network area |
|--------------------------|--|
| Ausgrid* | 488 |
| Endeavour Energy* | 200 |
| Essential Energy | 302 |
| SA Power Networks | 10 |
| Total (up to) | 1,000 |

***Note 1:** approximate number split across the Ausgrid and Endeavour Energy network areas will be dependent on the outcomes of NSW Government's Round 2 Kerbside Charging Grant funding. CPOs that are awarded this grant funding may engage PLUS ES to install chargers using this innovative installation in the Sydney metropolitan area.

Attachment A – PLUS ES Trial Waiver Application

Title: PLUS ES electric vehicle charger metering

Applicant: PLUS ES (The Trustee for ERIC Alpha AUP Trust 1 & Others)

Applicant ABN: 30 179 420 673

Submission date: 29 August 2024

Proposed waiver: National Electricity Rules: Exemption from clause 7.3.1(b)(2) and 7.8.3

Applicant licences/registration

- Metering Coordinator
- Accredited Metering Provider
- Metering Data Provider
- Embedded Network Manager

Project description

Project location: New South Wales

Trial project description: PLUS ES is partnering with distribution networks to lease space on power poles for kerbside EV chargers and an authorised energy retailer to roll out up to 500 x 7-22kW single or double port kerbside pole mounted EV chargers (EVCs) in the National Electricity Market (NEM). The trial project is funded in part by the NSW Government's EV kerbside charging grants (grants) (see: [link](#)).

The program is awarding around \$8.6 million in funding for 100s of kerbside chargers across designated local government areas in NSW (targeting metropolitan areas). More information about the NSW Government's grants can be found [here](#). Kerbside pole mounted EVCs currently require a separate metering enclosure proximate to the EVC. This trial seeks to innovate metering arrangements by leveraging the AEMC's Unlocking Consumer Energy Resources (CER) Benefits Through Flexible Trading (CER Benefits) Rule Change Final Determination ([link](#)), which removed the requirement for some metering installations to have visible display elements and remote disconnection functionality. The trial uses a compliant Type 4 meter (including National Measurement Institute (NMIInst) pattern approval) to streamline the EVC installation (see diagram Attachment A).

This innovative trial project will remove the need to have a separate external metering enclosure near the EVC that would contain a conventional Type 4 market meter. Instead, a compact, pattern approved Type 4 market meter would be installed inside the EVC, eliminating the requirement for the separate external metering enclosure. This innovative approach:

- Reduces both upfront capital costs and ongoing operating costs by streamlining commissioning, installation and maintenance for pole mounted charging;
- Improves the visual amenity within the public domain; and
- Reduces the space around a pole that could present a hazard, e.g. be walked into by a pedestrian.

The trial project seeks a waiver from Clauses 7.3.1(b) and 7.8.3 of the National Electricity Rules (NER). The waiver will enable PLUS ES to install new, or install a replacement, Type 4 NMIInst pattern approved meter that meets most NER requirements, but does not meet the requirements of:

- Clause 7.3.1(b), by way of Clause 3.1(a) of the Metrology Procedure Part A. As Clause 3.1(a) of the Metrology Procedure Part A requires installations to meet all requirements of the relevant Australian Standards. PLUS ES notes that the proposed meter meets almost all and, in some instances exceeds, these standards (see Attachment B for more detail); or
- Clause 7.8.3 which requires new and replacement metering for Small Customer installations to comply with the minimum services specifications (MSS) in Schedule 7.5 of the NER.

The MSS were introduced into the NER to support the installation of smart/advanced metering for Small Customers in the NEM (typically residential and small business customers). Specifically, to provide for remote disconnection and reconnection to reduce costs to Residential Customers for when they move residences. The need for this Schedule does not exist for metering EVC as the customer is a Commercial Customer (EV Charge Point Operator (CPO)) and the site is not a premises but space on a power pole. Historically, the primary driver for the introduction of Schedule 7.5 was to lower the cost of negotiations between MCs and parties seeking access to services that are enabled by advanced meters and provide a starting point from which Small Customers and other parties can choose additional services that they value (see Attachment B for more detail).

At its essence the trial project would enable PLUS ES to install a NMIInst pattern approved meter for the proposed EVCs. If granted, PLUS ES could install these meters in some chargers and address several research questions by comparing different installation sites within the trial project. PLUS ES would then integrate these new meter types into its IT systems and report on the challenges encountered and solutions implemented.

Aims, objectives and success criteria: The primary aim and objective of the project is to trial an innovative metering solution for pole mounted kerbside EV chargers that improves the efficiency and cost of public EV chargers for industry to deploy. This is achieved by removing the duplication of metering and charger enclosures and packaging the metering and charging elements in a single, fit-for-purpose unit.

A successful project will achieve secondary aims and objectives of:

- Providing AEMO with learnings to support with implementing the CER Benefits Rule Change by May 2026, including amending AEMO's Metrology Procedure to better integrate EVCs;
- Providing practical examples of the options and limitations for the maintenance of metering installations that are "in-built" within the housing of street furniture such as kerbside EV chargers. This can also inform AEMO's consultation with interested parties for the development of metering installation testing and inspection guidelines for the CER Benefits rule change implementation;
- Testing the suitability of public EV charger locations, particularly where a separate metering enclosure is not required;
- Improving understanding of consumer and broader public appetite for EV charging solutions on distribution poles; and
- Improving industry understanding of the most suitable business and ownership models for EV chargers installed on distribution poles.

The success criteria of the project include:

- Successfully deploy up to 500 EV charging solutions on poles with in-built metering which is accurate and can operate within the electricity market without the need for a separate metering enclosure with a retail meter;

- Obtain reporting, data and information on metering installation performance and share these learnings with AEMO to inform future amendments to the Metrology Procedure (if appropriate);
- Develop relationships with trial stakeholders, most notably the local community and local council(s) to improve and increase roll out of EV charging infrastructure in the NEM; and
- Gather insights into customer's charging behaviour and public appetite for the charging solution.

While the scope of the waiver is limited to the NER (see Attachment B, Diagram 1), the data collected through the waiver may also provide further learnings for the AER and AEMO about EVCs including any EVC customer complaints and the Retailer and CPO providing them to the AER and AEMO.

Waiver details

Intended commencement: Less than 6 months

Intended waiver duration: 5 years

Waiver requirement: The proposed regulatory waiver seeks a waiver from Clauses 7.3.1(b)(2) and Clause 7.8.3 of the National Electricity Rules (NER) to enable PLUS ES to install a Type 4 NMIInst Pattern approved meter that (a) does not meet every requirement of Clause 3.1(a) of the Metrology Procedure Part A which requires installations to meet all requirements of the relevant Australian Standards, noting that the proposed meter meets almost all and, in some instances exceeds, these standards (see Attachment B below), and (b) does not meet all of the requirements of Minimum Services Specification (MSS) listed in Schedule S7.5 and applicable to NMI Classification of 'Small', noting that the characteristics of the EVC is more aligned with NMI Classification 'Large', where MSS does not apply.

At its essence the regulatory waiver enables PLUS ES to install a NMIInst pattern-approved meter for the proposed EVCs. If granted, PLUS ES could install these meters in some chargers and address several research questions by comparing different groups within the trial project. PLUS ES would then integrate these new meter types into its IT systems and report on the challenges encountered and solutions implemented through an addendum to its Asset Management Plan with AEMO.

Monitoring and reporting: The project is contained to no more than 500 pole-mounted kerbside EVCs. Additionally, the grant funding includes project evaluation, audit and access obligations, whereby the NSW Government may evaluate or conduct audits of the project at any time. This includes mandatory surveys and meetings to analyse the project's impact on matters such as community sentiment and EV driver behaviour and sentiment. Data on the performance of the metering will be shared with AEMO and the AER to support evaluating the trial project (see Attachment C). Indicative installation costs can be shared commercial-in-confidence to allow comparison to standard installation costs.

To date, the NSW Government awarded PLUS ES funding to deploy the 149 pole-mounted kerbside chargers across five inner Sydney local government areas (LGAs) under round 1 of its grant kerbside charging grant program. These installations will feature 7kW or 22kW single-port EV chargers (EVSE). Should PLUS ES be successful in receiving the waiver then a portion of these chargers will use the innovative metering installation. Additionally, any recipients of round 2 funding that partner with PLUS ES will use the innovative metering installation up to a maximum of 500 chargers.

Infrastructure and assets: PLUS ES proposes to install up to 500 EVCs using this innovative metering installation approach on to up to 500 existing distribution network kerbside poles.

Previous consultation: PLUS ES has met with the AEMC and AEMO about the trial project, both have indicated interest in and support for the project. No stages of the project are completed and the trial project's commencement is subject to receiving a regulatory waiver from the AER. AEMO has indicated that it has capacity to work with the AER and PLUS ES to provide a pathway forward for the trial project.

At the end of the trial project (5 years), PLUS ES assumes that either:

- a) AEMO's Metrology Procedure will have been amended through consultation to accommodate this installation as a compliant installation (e.g. as a compliant type of meter following AEMO's planned future consultation on its procedures and noting that, but for this trial project, AEMO would may not have seen a need to consult on this proposed metering installation); or
- b) AEMO will monitor compliance with AEMO's Metrology Procedure and practices through PLUS ES Asset Management Strategy this will include quarterly reporting by PLUS ES to AEMO; or
- c) PLUS ES transition the installations to a conventional compliant installation; or
- d) PLUS ES will remove the EVCs from service (depending on development of the EVCI market).

Should the trial project be rejected, then all installations will proceed as BAU metering installations to meet the NSW Government's round 1 grant requirements of all installations occurring by April 2025. PLUS ES is already planning to start installing EVCs under BAU metering arrangements from later September/early October under the NSW Government round 1 kerbside charger grants. Subject to an AER regulatory waiver, a portion of the NSW Government funded EV chargers will use the AER regulatory waiver to demonstrate innovative approaches to metering. All of the round 1 chargers will need to be installed by April 2025. Additionally, any organisations that choose to partner with PLUS ES either within or outside of the round 2 of the NSW Government's funding program for their metering installation will also install this innovative approach to metering up to a maximum of 500 innovative EVC installations in NSW.

Risk management

Consumer impacts

Benefits: The trial project seeks to install NEM metering for pole mounted kerbside chargers that does not require a separate metering enclosure installed alongside the EVC. Instead, the Type 4 NMIInst pattern approved market meter would be within the EVC, and without the requirement of an additional metering enclosure on the pole. The trial project presents the following benefits for:

- Consumers, i.e. CPOs, by providing for streamlined commissioning, installation and maintenance costs for pole mounted charging, thereby reducing the overall cost for all consumers in the long term;
- The local community and small consumers by:
 - Improving visual amenity within the public domain
 - Reducing the space around a pole that could present a hazard, e.g. be walked into by a pedestrian;

- Market bodies to receive data on the EVCs use by EV users, including any complaints or EVC defects (see Attachment B which outlines data that AEMO and the AER will receive); and
- AEMO to receive data a learning to support developing updated MSS and AEMO Metrology Procedures to implement the CER Benefit. More kerbside pole-mounted EV chargers will offer several broader benefits to small consumers, particularly in urban and suburban areas where off street charging infrastructure is limited, including:
 - Pole-mounted chargers installed on existing utility or street light poles will reduce the need for extensive new infrastructure and making the installation process quicker and less disruptive. Utilising existing poles and power sources will lower installation and operational costs, potentially leading to lower charging fees for consumers;
 - Kerbside chargers will make it easier for EV owners to charge their vehicles without needing a dedicated home charging station. This will be especially beneficial for those EV owners without private driveways or garages;
 - Kerbside chargers in public areas make them more accessible to a larger number of people, including those who live in apartments or multi-unit dwellings;
 - With more charging options available, EV owners will feel more confident about their ability to find a charging spot, reducing range anxiety and encouraging the adoption of EVs; and
 - Increased availability of EV charging stations will accelerate the transition to EVs, reducing reliance on fossil fuels and lowering greenhouse gas emissions.

Consumer communication: PLUS ES's customer will be the Charge Point Operator, which will provide explicit and informed consent of their use of the innovative metering installation via the contract that they sign with PLUS ES.

Consumer privacy: PLUS ES will not collect any small customer personally identifiable information (PII). PLUS ES's data collection on EV charging volumes will be deidentified. Any small customer PII contained within a customer complaint or query to the Retailer or CPO will be provided directly to the AER by the Retailer or CPO.

Eligibility requirements

Risk management plan: PLUS ES has comprehensive compliance and risk management policies including a:

- Risk Management Framework
- Sustainable Procurement Policy
- External Partner Code of Conduct
- Environmental Management System Manual and certificate of registration
- WHS Risk Management Policy

PLUS ES also has a project plan that includes identifying and managing risks for the project with weekly project meetings and monthly steerco meetings to track progress with Executives. It includes risks to the project such as receiving the waiver, finalising contracts with the retailer and CPO and meeting key timeframes like installing all chargers by April 2025.

Operational capability: PLUS ES has smart meters under management and continues to be a key installation, maintenance and data delivery partner for major energy retailers in the NEM. We continuously invest in our dedicated innovation and improvement team to support the net zero transition and electrification of the transport sector. PLUS ES has a team of Infrastructure Delivery personnel who are focused on the installation and commissioning of

grid connected infrastructure. These resources have the capability and capacity to be utilised on this project to install kerbside EV charging assets.

PLUS ES is financially resourced to deliver the project with a successful track record of delivering infrastructure in the last five years. As such, PLUS ES has the field staff and technical ability as a MP/MC to roll out these services within the NEM. We have received funding from the NSW Government for round 1 of the Government's project and expect to be partnering with organisations to deliver this innovative approach to metering installations in round 2 of the NSW Government funding.

Exit strategy: At the end of the trial project (5 years), PLUS ES assumes that either:

- a) AEMO's Metrology Procedure will have been amended through consultation to accommodate this installation as a compliant installation (e.g. as a compliant type of meter following AEMO's planned future consultation on its procedures and noting that, but for this trial project, AEMO may not have seen a need to consult on this proposed metering installation); or
- b) AEMO will monitor compliance with AEMO's Metrology Procedure and practices through PLUS ES Asset Management Strategy this will include quarterly reporting by PLUS ES to AEMO; or
- c) PLUS ES transition the installations to a conventional compliant installation'; or
- d) PLUS ES will remove the EVCs from service (depending on development of the EVCI market).

We assume either a) or b) will be the likely pathway for the exit strategy.

Regulatory and industry development: The trial project will provide learnings for AEMO on EVC installations in the NEM with an innovative approach to metering and how it might implement the CER Benefits Rule Change to support developing an updated AEMO Metrology Procedure. The AER will also be provided extensive data on the EV users' use of the EVC that it otherwise might not receive but for the trial to inform its own consumer protection development for EV users.

Innovative Trial Principles

Whether the trial project is focused on developing new or materially improved approaches to the use or supply of, or demand for, electricity

In the trial project, the new element involves removing the need for a separate metering enclosure and placing the Type 4 NMIInst pattern approved market meter within the EV charger, alongside the EV non-market EV charger meter. Implementing this solution is expected to significantly enhance the efficiency of supplying and providing energy to EV customers.

Whether the trial project is likely to contribute to the achievement of the national energy objectives

Innovations like these promote efficient investment in, and operation and use of, electricity services, serving the long-term interests of consumers. This is because the trial project will lead to a more efficient and least cost approach to EVCs in the NEM, which in turn will facilitate greater EV adoption and hence contribute to reducing Australia's greenhouse gas emissions. This aligns with the National Electricity Objective (NEO) and supports achieving targets set by participating

jurisdictions for reducing Australia's greenhouse gas emissions.

Whether the trial project is able to demonstrate a reasonable prospect of giving rise to materially improved services and outcomes for consumers of energy

The successful trial of the proposed EV charging solution and metering installation will significantly enhance the charging services available to EV retailers, charge point operators (CPOs), owners, the community at the sites and improve outcomes for all energy consumers. It will increase the accessibility, affordability and public amenity aspects of kerbside EV charging. This trial project is the first of many steps toward introducing materially improved services and outcomes for public EV charging users.

Whether the trial project maintains adequate consumer protections, including whether the trial project may involve risks to consumers and (if so), how those risks might be mitigated

The current protections that safeguard retailer customers will remain intact, ensuring no alterations to the standard roles and protections. For instance, in situations where chargers are billed incorrectly for their energy consumption, CPOs will have the assurance that their charges will be accurately and fairly adjusted. Furthermore, the use of chargers will be entirely at the discretion of the EV user, meaning there will be no obligation or requirement for EV user to use the chargers unless they choose to do so. This approach guarantees that EV users retain control over their charging decisions while benefiting from existing consumer protection measures.

The trial will collect data to compare energy measurements from the type 4 NMIInst pattern approved meter with the non-standard/NMIInst pattern approved meter native to the EVC. The learnings from this comparison will be shared with industry and regulatory authorities.

Whether the trial project is unable to proceed under the existing regulatory framework

The trial project is unable to proceed under the existing regulatory framework as it cannot comply with clause 3.1 of AEMO's Metrology Procedure Part A and is unable to fully satisfy all requirements of Schedule 7.5 (see Attachment B for more detail). Schedule 7.5 is drafted to ensure that a Small Customer has consumer protections for elements such as re-energisation and de-energisation. In this instance, the customer (i.e. CPO) is similar to a large customer and so the intent of Schedule 7.5 is not necessary for the purposes of this trial.

If the waiver is not approved, PLUS ES will proceed with standard metering installations to meet the NSW Government's April 2025 timeframes for the grant funding.

Whether the trial project has moved beyond research and development stages but is not yet established, or of sufficient maturity, size or otherwise

Yes, the trial project is ready to commence subject to the regulatory sandbox waiver and commissioning the trial project meters. Deployment will help to determine the commercial viability of the innovative approach to metering

commercially ready, to attract investment

Whether the trial project may negatively impact AEMO's operation of the national energy systems and national energy markets or AEMO's facilitation of customer connection services and customer retail services and, if there are impacts, how those impacts can be mitigated

No there will be no impact to AEMO's operations as the trial project meters will still be able to effectively meter for market settlement purposes. Additionally, the trial project is limited to only 500 pole mounted EVC installations and therefore will not negatively impact AEMO's operations as the overall volume of meters relative to the number in the NEM is immaterial. This will mean that the cumulative energy flow is immaterial in the context of the NEM. Instead, it will provide learnings for AEMO on EVC installations in the NEM with an innovative approach to metering and how it might implement the CER Benefits Rule Change.

Whether the trial project may impact on competition in a competitive sector of a national energy market

No. The proposal is limited to 500 pole mounted EVC installations and does not prevent another proponent from applying for a regulatory waiver to carry out a similar or an iterative version of the trial project.

Additional Principles

Whether the trial project is able to be trialled and evaluated

Yes, the project is contained to no more than 500 pole-mounted kerbside EVCs. Additionally, the grant funding includes project evaluation, audit and access obligations, whereby the NSW Government may evaluate or conduct audits of the project at any time. This includes mandatory surveys and meetings to analyse the project's impact on matters such as community sentiment and EV driver behaviour and sentiment. Data on the performance of the metering will be shared with AEMO and the AER to support evaluating the trial project (see Attachment B). Indicative installation costs can be shared commercial-in-confidence to allow comparison to standard installation costs.

Whether there is potential for the trial project to be successfully expanded

There is potential for this trial project to be expanded to other NEM regions and networks through subsequent regulatory sandbox waiver applications to the AER.

Whether the trial project will provide for public sharing of knowledge, information and data resulting from the trial project.

The learnings from the metrology configurations and innovative approach to metering to deliver pole mounted kerbside EVCs will be shared with AEMO to improve revisions of AEMO's Metrology Procedure to support EV charging infrastructure in the NEM. The NSW Government and the AER will also receive extensive data about the innovative metering installations from which it can public learnings.

Attachment B – Supplementary Information

Diagrams of proposed innovative metering installation

Diagram 1: Trial Project’s learning scope

The Trial Project’s scope is limited to the NEM elements, however the AER and AEMO will receive data outside of the NEM’s scope (see Attachment C) and so the AER and AEMO can obtain further learnings from this data for their own work programs.

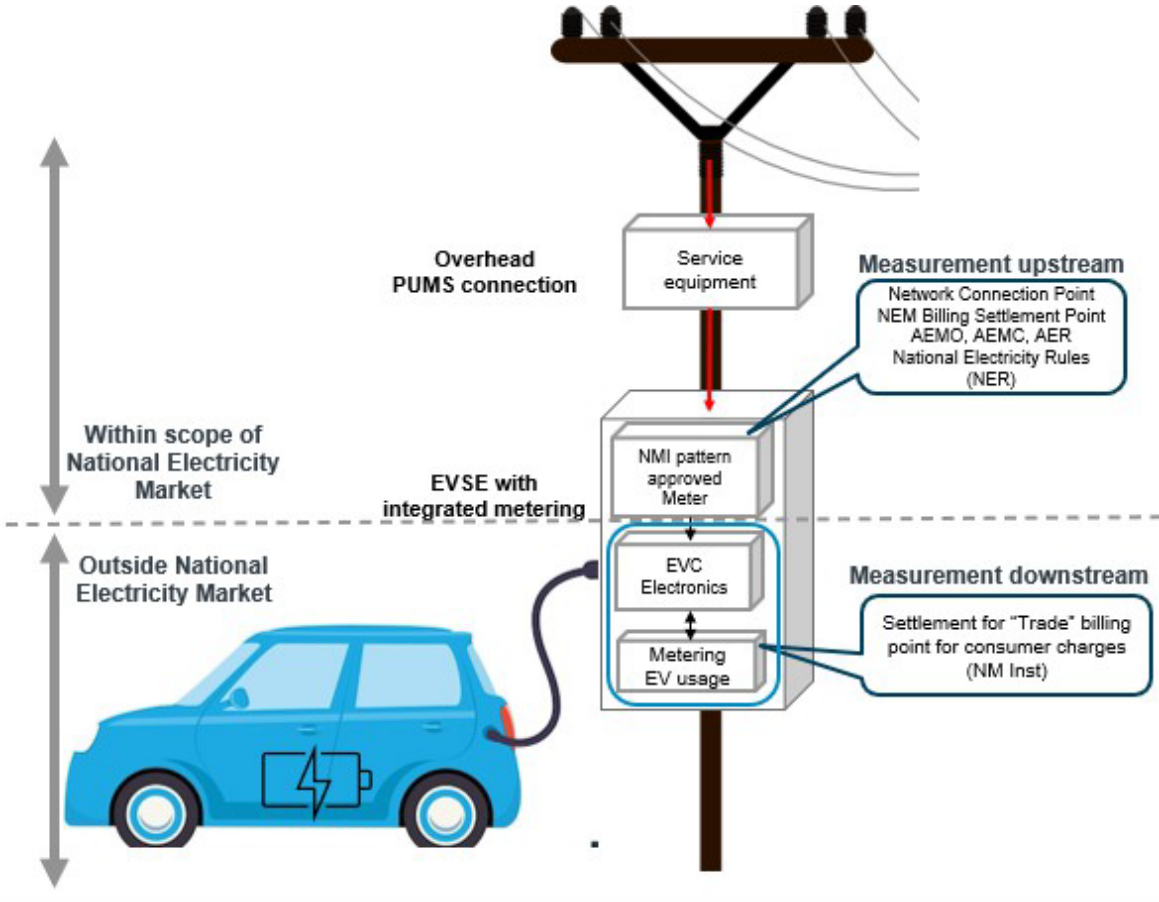
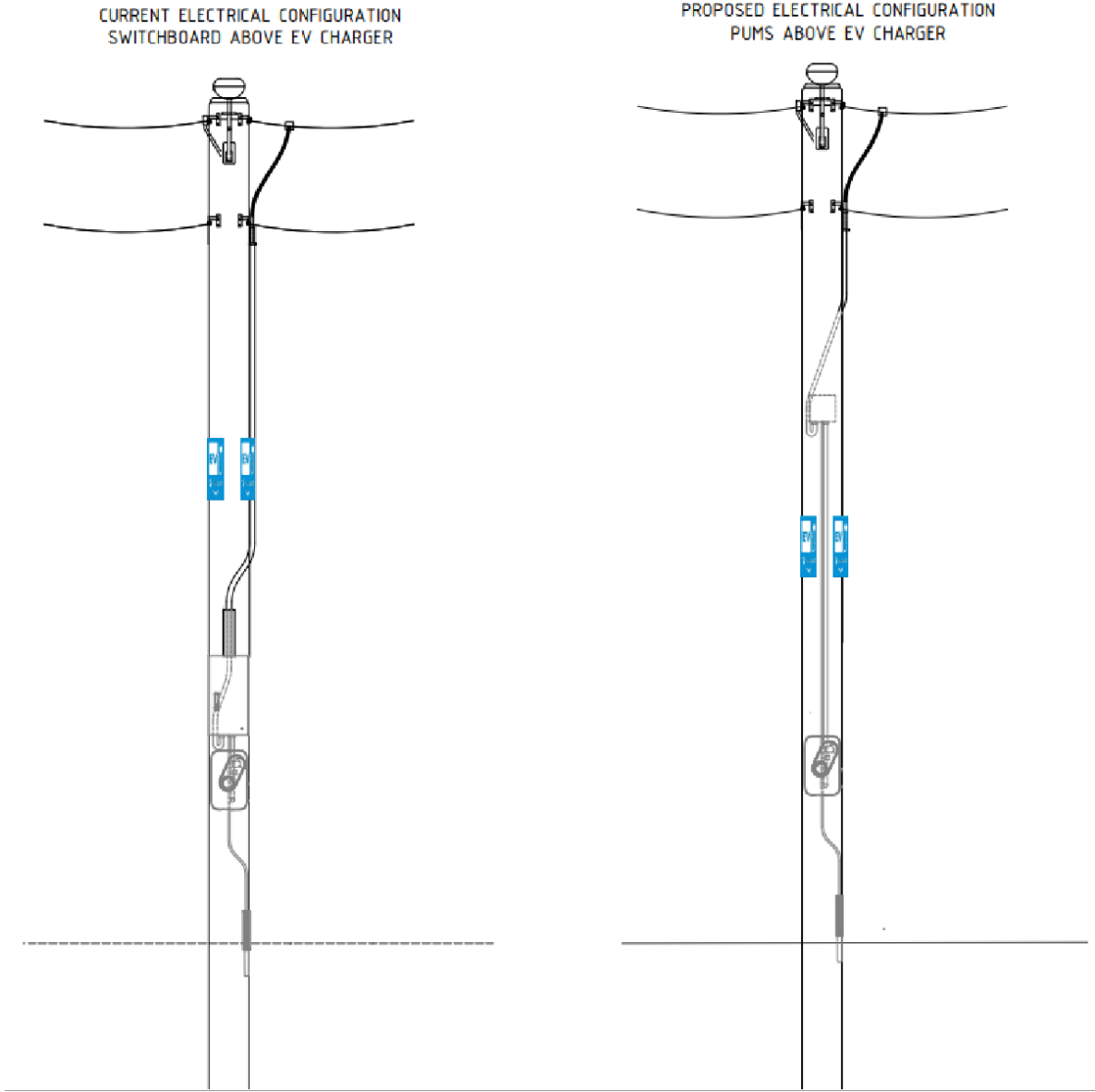


Diagram 2: Current EVC installation compared with proposed EVC metering installation removing the need for a separate metering box.



Assessment of proposed metering installation compliance and proposed controls:
AEMO's Metrology Procedure

Clause 3.1 of AEMO's Metrology Procedure Part A requires meters for this type of outdoor meter installation to meet specific Australian Standard (AS) 60252.11 for the Australian Outdoor Meters (AOM) category. The proposed meter exceeds the standard for some elements and does not for others. For the elements that do not meet the standard PLUS ES proposes the following solutions to address non-compliance for the duration of the trial project.

| AS 62052.11 AOM Requirement* | Proposed Solution | Risk | Broader Objective Met? |
|--|---|------|------------------------|
| Broader rated operating temperature range: IM: -10 to 45°C vs AOM: -10 to 55°C | No action needed. The meter exceeds the requirements as it is currently specified and tested operating range of -25°C to 70°C, which encompasses the full range obligation of the AS. | Nil | Yes |
| Broader cold test and damp heat cyclic test temperature range | These requirements affect longevity and risk of corrosion etc. rather than specific accuracy performance. Meter may need to be replaced earlier than expected if the equipment deteriorates due to the environmental conditions. This would be a condition on the metering provider and their asset management performance rather than meeting a specific market/AEMO need. | Low | Yes |
| Additional 10kV/40Ω Voltage Impulse Test to ground (simulating lightning strike) | While the meter is tested for impulse to ground as part of its pattern approval, it has not been checked against the higher energy AS impulse test. An impact may be a lower resilience to lightning strike and associated damage, which would require the meter to be replaced, which PLUS ES would do . N.B. NMI M6 specifies, and the meter has already been tested to a more stringent 12kV/40Ω/9J between circuits but at an albeit lesser energy 10kV/500Ω/0.5J impulse test to earth. | Low | Yes |
| Supply Control Switch (SCS) requirements: <ul style="list-style-type: none"> Introduces a 3kA / 6kA / 10ms fault current test on SCS SCS hardware functionality requirements such as auto-disconnect-after-reconnect. | PLUS ES does not intend to use the SCS as remote disconnect/reconnect is only an obligation under the MSS for a SMALL customer therefore there is no need to meet requirement . However safe and accurate meter operation remains important. On this aspect: NMI M6 requires, and the meter passed tests for: <ul style="list-style-type: none"> $30I_{MAX}$ (1.9kA)10ms and remain accurate – less stringent than AS 3kA 7kA/60ms and not cause damage – more stringent than AS 6kA, but more important as it applies to safety. | Low | Yes |
| Specific labelling and start-up time requirements | Meter labelling requirements can be reduced by purchaser NMI M6 start-up time requirements of 10s / 60s is met by meter's quoted start-up time of 5s, exceeding AS requirement . | Nil | Yes |

*(compared to IEC 62052 IM indoor meter, which is basis of meter's design).

Schedule 7.5 of the NER - NER Table S7.5.1.1 Minimum Service Specifications (MSS)

The MSS was introduced into the NER to support the installation of smart/advanced metering for small customers in the NER (typically residential and small business customers). The primary driver for introduction was to lower the cost of negotiations between MCs and parties seeking access to services that are enabled by advanced meters and provide a starting point from which small customers and other parties can choose additional services that they value.

| Service | Assessment / Proposed solution | Risk | Objective Met? |
|---|--|------|----------------|
| (a) Remote disconnection service | Remote disconnect / reconnect is primarily used for Small Customers (residential and small business) moving and out of | Nil | Yes |

| Service | Assessment / Proposed solution | Risk | Objective Met? |
|---|---|------|----------------|
| (b) Remote reconnection service | premises. As such from a policy intent perspective this requirement is not applicable to this scenario as it is a CPO that owns the charger and if a “move-out” were required then the charger would be on-sold to another CPO or removed via a site visit. | Nil | Yes |
| (c) Remote on-demand meter read service | Customer requested remote on-demand meter read service is not applicable to this scenario as the large customer (charge point operator) has access to their own measurement data. The proposed solution meets this requirement. | Nil | Yes |
| (d) Remote scheduled meter read service | The proposed solution meets this requirement. | Nil | Yes |
| (e) Metering installation inquiry service | The proposed solution meets this requirement except for status of switch used to affect the disconnection and reconnection services (not required – see a & b above). | Nil | Yes |
| (f) Advanced meter reconfiguration service | Once the metering installation is installed and established in relevant systems, the meter’s operational parameters do not change so the advanced meter reconfiguration service is not applicable and not required. | Nil | Yes |

Proposed reporting and end-use customer requirements to be included in Retailer and CPO's metering contracts

The following clauses will be included in PLUS ES's respective contracts with the Retailer and CPO.

Reporting requirements

The Relevant Data under this Agreement includes (but is not limited to) 6 monthly and ad hoc reporting to the NSW Government, AEMO and AER with:

- (a) details of energy usage and evidence of:
 - (i) energy sourced from onsite renewable resources to electricity consumption of all Chargers;
 - (ii) voluntary surrender of Green Products equivalent to electricity consumption of all EVSE; and/or
 - (iii) Green Power purchased equivalent to electricity consumption of all Chargers, as applicable, other than Metering Data (the **Energy Data**).
- (b) data on the usage of each Charger, including:
 - (i) number of charging sessions per day/week/month;
 - (ii) length of each charging session;
 - (iii) electricity consumed (kWh) per charging session;
 - (iv) post code of each unique user (where available);
 - (v) and associated customer ID (however customer name and contact details can be kept anonymous); and
 - (vi) other non-PII data reasonably requested by PLUS ES that may be beneficial in assessing the usage of the Charger,

(the **Usage Data**); and

- (c) other information, including:
 - (i) copies of servicing and maintenance logs;
 - (ii) Chargers status and configuration;
 - (iii) charge behaviours (i.e. do the customer IDs charge elsewhere); and
 - (iv) the number of new sign ups to the Public Charging Service vs existing customers of the Public Charging Service (as identified using a customer ID),

(the **System Data**).

- (d) Data on customer feedback or complaints about the charger, including:
 - (i) Any complaints or feedback about the charger received by the CPO or Retailer, (**the customer-led data**)

Customer complaint information

- (e) the CPO advises its on-selling customers (the EV charger users) in its electricity on-selling contracts that it can lodge a complaint about the EVC, CPO, Retailer with the AER in the CPO's contract with its customers (EV charger users).

Proposed trial project conditions

PLUS ES proposes that the trial project would be subject to conditions imposed by the AER including but not limited to:

- Limiting the number of installations to 500 pole mounted EVCs in NSW;
- PLUS ES only applying the regulatory waiver for the purposes of non-compliance with clause 3.1 of AEMO's Metrology Procedure Part A using the Type 4 NMIInst pattern approved meter that in some cases exceeds the standards but in others does not meet the standards, and so PLUS ES will apply appropriate controls as outlined **Attachment B**;
- PLUS ES is only applying the regulatory waiver for the purposes of non-compliance with clause 7.8.3 of the NER to allow the installation of metering at an EVC, that does not fulfil all of the MSS requirements for NMIs with the classification of 'Small'. While the EVC may have an annual consumption below the default threshold bordering 'Small' and 'Large', PLUS ES sees the EVC metering installation as a Large NMI classification because the services such as remote disconnect / reconnect that supports a Small Customer for move in / move out scenarios, does not apply to the EVC, as detailed in **Attachment B**. However, as the NMI classification is determined by the Network, they may default the NMI classification to Small based only considering annual consumption throughput, mandating the compliance with clause 7.8.3. For this reason, the waiver for clause

7.8.3 is required.

- At the end of the trial project (5 years), PLUS ES assumes that either:
 - a) AEMO's Metrology Procedure will have been amended through consultation to accommodate this installation as a compliant installation (e.g. as a compliant type of meter following AEMO's planned future consultation on its procedures and noting that, but for this trial project, AEMO would may not have seen a need to consult on this proposed metering installation); or
 - b) AEMO will monitor compliance with AEMO's Metrology Procedure and practices through PLUS ES Asset Management Strategy this will include quarterly reporting by PLUS ES to AEMO; or
 - c) PLUS ES transition the installations to a conventional compliant installation; or
 - d) PLUS ES will remove the EVCs from service (depending on development of the EVCI market).
- PLUS ES to share 6 monthly reporting on the metering installations, including data on the energy usage, number and length of charging sessions, electricity consumed, servicing and maintenance logs to capture any anomalies or technical failures and repairs, data on customer feedback or complaints. PLUS ES will also share any ad hoc reports requested by the NSW Government on the chargers. **Attachment C** outlines the proposed reporting in full. PLUS ES notes that any information that is commercial in confidence will not be shared publicly by the AER or AEMO;
- PLUS ES will report to AEMO on any anomalies or technical failures and repairs, for example lightening strike (see **Attachment B** for further examples), within 15 business days that arise and will provide quarterly reports to inform innovation learnings. This will be documented in PLUS E's updated Asset Management Strategy. This approach will provide learnings information on the trial and inform amendments to AEMO's Metrology Procedure to the benefit of all market participants seeking to implement and understand the CER Benefits Rule Change. AEMO will share its findings with the AER to provide learnings to the broader market on the regulatory sandbox; and
- PLUS ES's respective contracts with the Retailer and the CPO will require that the Retailer and the CPO advise its customers using the EVC that they can lodge a complaint about the EVC, Retailer or CPO with the AER; and
- PLUS ES will ensure that a physical display is accessible to the CPO (Customer) by providing a window in the access panel of the EVC, through which the kWh register is visible.