

Consultation Notice PLUS ES Trial Waiver Application 2024



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1 Executive Summary

The Australian Energy Regulator (**AER**) has established the Energy Innovation Toolkit (formerly referred to as ‘regulatory sandboxing’); a function that aims to help energy innovators and start-ups navigate complex regulatory frameworks and enable the trial of new products and services that will deliver greater choice and cheaper energy options for consumers.

The Energy Innovation Toolkit framework facilitates trials of innovative projects in part by giving the AER a power to issue trial waivers. A trial waiver temporarily exempts an innovator from having to comply with specific rules that are acting as regulatory barriers to allowing an innovative trial project to proceed. As part of its consideration of trials, the AER is required to publicly consult on the proposals it receives.

PLUS ES (the trial proponent), a metering coordinator part-owned by Ausgrid under ringfenced arrangements, lodged an application for a trial waiver with the AER through the [Energy Innovation Toolkit](#) on 29 August 2024. A copy of this application is included with this Consultation Notice at **Attachment A**. Additional trial project information provided by the trial proponent, including diagrams of the proposed innovative metering solution, is included at **Attachment B**.

The proposed trial project relates to the installation of pole mounted electric vehicle (EV) chargers in designated local government areas in New South Wales. PLUS ES intends to partner with distribution networks to lease space on power poles to install up to 500, 7-22 kW single or double port kerbside EV chargers, which will be operated by a retail partner appointed by PLUS ES. The proposed trial project is partly funded by a grant PLUS ES received from the NSW Government’s electric vehicle kerbside charging grants.

To facilitate its innovative metering solution for pole mounted kerbside EV chargers, PLUS ES is seeking a waiver from two clauses in the NER:

- clause 7.3.1(b)(2) (relating to AEMO’s Metrology Procedure Part A).
- clause 7.8.3(a) (relating to compliance with the minimum services specification in the NER).

PLUS ES’s metering installation meets the requirements for an indoor metering installation, but not the requirements for an outdoor metering installation (see **Attachment B**).

PLUS ES’s primary objective is to trial an innovative metering solution for pole mounted kerbside EV chargers that may improve the cost and efficiency of EV charger installation with minimal impacts on users. In seeking this waiver, PLUS ES expects to reduce the upfront capital costs and ongoing operational costs of pole mounted kerbside EV chargers. Additionally, this trial is also expected to provide the Australian Energy Market Operator (AEMO) with learnings to support implementing the ‘Unlocking CER benefits through flexible trading’ rule change,¹ including amending AEMO’s Metrology Procedure to better integrate EV chargers.

¹ More information on this rule change can be found on the Australian Energy Market Commission [website](#).

The AER is now consulting on the trial waiver application and seeking stakeholder views on matters including whether the trial waiver application meets the eligibility requirements and the innovative trial principles.²

Details of the specific trial waiver application from PLUS ES are presented in Section 2 of this Consultation Notice, and a full copy of PLUS ES's application is included as Attachment A. Supplementary information is included as Attachment B.

1.1 About the AER

The AER exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work, and we focus on ensuring a secure, reliable, and affordable energy future for Australia. Energy is an essential service for Australian households and businesses, and a critical contributor to the long-term success of the Australian economy.

We regulate electricity networks and covered gas pipelines in all jurisdictions except Western Australia. We set the amount of revenue that network businesses can recover from customers for using these networks. We protect the interests of consumers by enforcing the laws for electricity and gas wholesale and retail markets, as well as networks, across southern and eastern Australia. We monitor and report on the conduct of market participants and the effectiveness of competition.

The AER also administers a range of regulatory sandboxing functions, including the Energy Innovation Toolkit, which was launched in August 2022. The Energy Innovation Toolkit includes an Innovation Enquiry Service which provides guidance to innovators and other market participants about how the current regulatory framework might apply to their proposed product or service.

It also includes two functions relating to trial projects – a trial waiver function which is the responsibility of the AER and a trial rule change function which is the responsibility of the Australian Energy Market Commission (AEMC). Both kinds of trial function temporarily remove or amend an energy regulatory barrier, allowing projects with an innovative business model to be tested that would normally be unable to proceed under current frameworks. The [Trial Projects Guidelines](#) were published in January 2023 to explain how the AER will consider and assess trial waiver applications.

This consultation notice relates to our trial waiver function under the National Energy Laws.

1.2 Trial waivers

A trial waiver temporarily exempts an innovator from having to comply with specific law or rules provisions that may be acting as regulatory barriers to allowing an innovative trial project to proceed. Trials are limited to five years, with the possibility of a once-off extension of up to one year.

Trial waivers facilitate trials for new approaches, services or models that may be in the long-term interests of consumers but cannot be trialled under the current regulatory

² The AER must have regard to the eligibility requirements (specified in the National Energy Rules) and innovative trial principles (specified in the National Energy Laws) when considering whether to grant a trial waiver. For more information see 1.3 – How we assess waiver applications below.

framework. These trials can provide evidence to support permanent changes to the law or rules to ensure they remain fit-for-purpose in serving the long-term interests of consumers.

The trial waiver process is not to be viewed as an alternative, but rather as a complement to existing processes and frameworks. Where evidence exists that a rule is no longer fit-for-purpose in serving the long-term interests of consumers, entities are encouraged to submit a rule change request to the AEMC.

The AER may, on application by a person or body that proposes to undertake a trial project (the proponent), make a determination to grant the proponent an exemption (a trial waiver) from one or more of the following:

- section 11 of the National Electricity Law (NEL) (which concerns registrations) and/or the National Electricity Rules (NER) or a provision of the NER³
- section 88 of the National Energy Retail Law (NERL) (which concerns retail authorisations) and/or the National Energy Retail Rules (NERR) or a provision of the NERR⁴
- section 91BJ, section 91BRD, section 91BRR and/or section 91LB of the National Gas Law (NGL) (which concern registrations and authorisations) and/or the National Gas Rules (NGR) or a provision of the NGR.⁵

1.3 How we assess trial waiver applications

In considering whether to grant a trial waiver, the AER will have regard to the **eligibility requirements** specified in the National Energy Rules⁶ and the **innovative trial principles** specified in the National Energy Laws.⁷ Clause 4.2 of the [Trial Projects Guidelines](#) sets out our proposed approach to assessing whether the eligibility requirements and innovative trial principles are met.

The AER is required to have regard to whether a trial project meets the eligibility requirements and innovative trial principles in deciding whether to grant a waiver, but there is no requirement that the AER must be satisfied that all requirements and principles are met to grant a waiver. The AER will take a holistic approach to the consideration of the eligibility requirements and innovative trial principles when assessing each application.

This flexibility is appropriate, since there may be circumstances where not all requirements and principles are met, but there is merit in a trial project proceeding. However, the AER is more likely to grant a trial waiver where we are satisfied that a trial project meets all the innovative trial principles, and the eligibility requirements that are set out in clause 4.2 of the [Trial Projects Guidelines](#).

1.4 The purpose of this consultation

Industry and consumer engagement is a valuable input to our determinations. It is a requirement under clause 8.16.3 of the NER that the AER carry out public consultation in relation to a proposed trial waiver, unless the AER is satisfied that the proposed waiver is

³ NEL clause 18ZL(1).

⁴ NERL clause 121C(1).

⁵ NGL clause 30W(1).

⁶ NER clause 8.16.4(a); NERR clause 178(1); NGR clause 135MC(1).

⁷ NEL section 18ZL(2); NERL section 121C(2); NGL section 30W(2).

unlikely to have an impact on other registered participants or is unlikely to have a direct impact on retail customers other than those who provide explicit informed consent to participate in the trial project.

Additionally, issues or concerns raised through consultation may also inform the final design of the trial waiver, including conditions, reporting requirements or other obligations.

When we receive stakeholder submissions that articulate the views of participants and consumers (as well as other stakeholders), particularly in relation to consumer preferences, issues in a regulatory proposal, and reasons supporting and opposing a determination, our decision-making process is strengthened.

1.5 Confidential information

To facilitate an informed and transparent consultative process we prefer all submissions to be publicly available. The AER will treat all submissions as public documents unless otherwise requested, and blanket confidentiality claims generally will not be accepted.

Parties wishing to provide a submission that contains confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim, and provide reasons for the claim; and
- provide a separate, non-confidential version of the submission in a form suitable for publication.

The AER does not generally accept blanket claims for confidentiality over the entirety of the information provided and such claims should not be made unless all information is truly regarded as confidential. The identified information must be genuinely confidential and not otherwise publicly available.

The AER recognises that the disclosure of confidential commercial information in respect of a business may have a substantial adverse effect on the interests of that business. However, trial waivers may also substantially affect other parties (such as access seekers or competitors) and some disclosure of information may be necessary for open and transparent decision-making.

For further information regarding the use and disclosure of information provided to us, see the [ACCC/AER Information Policy](#), published June 2014.

1.6 Next Steps

Submissions to this consultation should be lodged at the following email address: regulatorysandbox@aer.gov.au by close of business, **Tuesday 12 November 2024**. Any queries about this consultation can also be lodged at the same email address.

Following the close of the consultation period of at least 20 business days, the AER will consider the submissions and any concerns or issues raised through this process. Where necessary, further information may be sought from the project proponent.

Following this, the AER will make and publish a formal decision. Depending on this outcome, the AER will provide details on the final waiver as outlined in clause 4.8 of the [Trial Projects Guidelines](#).

2 Trial project summary

The trial proponent, PLUS ES, lodged an application for a trial waiver with the AER through the [Energy Innovation Toolkit](#) on 29 August 2024. The proposed trial relates to the installation of pole mounted EV chargers in designated local government areas in New South Wales. PLUS ES intends to partner with distribution networks to lease space on power poles to install up to 500, 7-22 kW single or double port kerbside EV chargers, which will be operated by PLUS ES's retail partner. The trial project is partly funded by a grant PLUS ES received from the NSW Government's electric vehicle kerbside charging grants. More information on this process can be found on the [NSW Government website](#).

The trial proponent is seeking a waiver from provisions of the NER to allow it to install EV chargers with in-built metering installations that do not meet all the requirements of the Metrology Procedure to comply with relevant Australian Standards for outdoor metering installations. The trial project is expected to reduce costs because the innovative metering solution would avoid the need to install a separate meter alongside each EV charger. Additionally, this trial is also expected to provide AEMO with learnings to support upcoming reviews of the Metrology Procedure further to the implementation of the 'Unlocking CER benefits through flexible trading' rule change.

PLUS ES is a registered Metering Coordinator, an accredited Metering Provider and Metering Data Provider in the National Electricity Market. More information on PLUS ES can be found on its [website](#).

2.1 Details of proposal

The project's primary aim is to trial an innovative metering solution for pole mounted kerbside EV chargers that improves the efficiency and cost of public EV chargers. This is achieved by packaging the metering installation and charging elements in a single unit.

To achieve this, PLUS ES is seeking a waiver from clause 7.3.1(b)(2) of the NER (relating to AEMO's Metrology Procedure Part A), which requires metering installations to comply with all requirements of the relevant Australian Standards, and clause 7.8.3(a), which requires new and replacement metering installations for small customers to comply with the minimum services specification.

The waiver would enable PLUS ES to install Type 4 pattern approved metering installations in pole mounted kerbside EV chargers that do not meet the requirements of clause 3.1(a)(i) of the AEMO Metrology Procedure Part A. The project is closely aligned with the AEMC's 'Unlocking CER benefits through flexible trading' rule change, which, once implemented, will permit large customers to use technology with in-built measurement capabilities. Once installed, the charge point operator (an authorised energy retailer) will then on-sell the energy and provide an EV charging service to customers with EVs. As the waiver will not apply to the selling of the EV charging service, the current protections that safeguard retailer customers is expected to remain intact.

2.2 Initial consideration under cl. 8.16.2

The AER has reviewed the application and considers that it complies with the information and eligibility requirements and that the proposed trial project could not be carried out satisfactorily without a trial waiver.

The AER does not consider the application to be misconceived or lacking in substance and the waiver has now progressed to the consultation stage.

2.2.1 Waiving adherence to AEMO Procedures

As flagged in the [AER Trial Projects Guideline – Explanatory statement](#), there may be circumstances where an exemption falls outside of the scope of existing waiver and exemption guidelines and would instead be considered within the Energy Innovation Toolkit.

If compliance with a procedure or guideline is a rule requirement, the AER is able to waive compliance with that requirement and require compliance with the remainder of the guideline or procedure as a condition of granting the trial waiver.

AER staff have engaged with AEMO staff on how the waivers from specific provisions of the Metrology Procedure Part A could be handled. Initial engagement indicates support for consideration of the waiver application through the Energy Innovation Toolkit.

3 Questions for consultation

3.1 General Feedback

The AER seeks comments broadly on all aspects of the trial waiver application, including on how the application addresses the innovative trial principles, the eligibility criteria and if the trial project is likely to contribute to the achievement of the National Energy Objectives.⁸ Views put forward by stakeholders will form part of the substantive assessment of the application which the AER will undertake after consultation is complete.

In addition to any general feedback provided on the trial waiver application, the following questions are separately included as additional points on which the AER is particularly interested in stakeholder views.

3.2 Contribution to regulatory and industry experience

As outlined in the [Trial Projects Guidelines](#), the first eligibility requirement under the National Energy Rules requires an assessment of how the trial project is likely to contribute to the development of regulatory and industry experience. The PLUS ES trial waiver application notes that the trial project could:

- provide AEMO evidence to support its implementation of the ‘Unlocking CER benefits through flexible trading’ rule change, including amending AEMO’s Metrology Procedure
- provide practical examples of options and limitations for the maintenance of in-built metering installations within the housing of street furniture such as kerbside EV chargers
- improve understanding of consumer and broader public appetite for EV chargers on distribution poles, particularly in areas with limited off-street parking
- improve industry understanding of the most suitable business and ownership models for EV chargers installed on distribution poles.

Views or comments on how this trial contributes to the development of regulatory and industry experience are welcomed.

The AER welcomes feedback on whether and how the trial would help inform future work on broader public EV charging policy and associated regulatory settings.

3.3 Scope

PLUS ES is seeking a waiver from two clauses in the NER:

- clause 7.3.1(b)(2) (relating to AEMO’s Metrology Procedure Part A)
- clause 7.8.3(a) (relating to compliance with the minimum services specification in the NER).

As the scope includes aspects of the regulatory framework that are within AEMO’s remit, the AER will engage directly with AEMO regarding the scope of this waiver sought. We welcome views, however, on whether or not both clauses should be included in this waiver.

⁸ See the National Electricity Objective in section 7 of the NEL; the National Gas Objective in section 23 of the NGL; and the National Energy Retail Objective in section 13 of the NERL.

As noted above in section 2.2.1, if compliance with a procedure or guideline is a rule requirement, the AER is able to waive compliance with that requirement and require compliance with the remainder of the guideline or procedure as a condition of granting the trial waiver.

3.3.1 Trial duration and the number of EV chargers

Additionally, in considering whether to grant a trial waiver, the AER may have regard to any other matter it considers relevant, including (but not limited to) any relevant consideration that may be specified in the [Trial Projects Guidelines](#).⁹

One of the matters we consider relevant is the duration of the trial proposed by the trial proponent. PLUS ES is seeking a 5-year waiver to facilitate its trial project, and for the waiver to facilitate the installation of up to 500 trial EV chargers. The AER notes that this waiver will apply both to the installation of these EV chargers, as well as the ongoing operation of these devices. If the waiver ceased before AEMO had the opportunity to review the Metrology Procedure, for example, the chargers installed through this waiver would be deemed to be non-compliant and would need to be transitioned, in line with the proponent's exit strategy.

Views or comments on the requested duration and scope of the trial waiver are welcomed.

The AER welcomes feedback on whether the proposed trial may restrict or reduce competition in a competitive sector of the market and, if so, the reasons for that view.

3.4 Consumer protection

When taking into consideration whether to grant a trial waiver, the AER has regard to the innovative trial principles as outlined in clause 4.2 of the [Trial Projects Guidelines](#). Of these innovative trial principles, clause 4.2(a)(viii) includes whether the trial project maintains adequate consumer protections, including whether the trial may involve risks to consumers and (if so), how those risks might be mitigated.

The AER '[Review of consumer protections for future energy services – final advice](#)' noted that the AER does not consider there to be a strong case for EV charging at public facilities to be captured under energy-specific consumer protection in the National Energy Customer Framework, although the Australian Consumer Law will still apply to provide consumer protections.¹⁰ The application does note that as per the agreement between PLUS ES and the retailer or Charge Point Operator, de-identified customer complaints relating to the EV chargers in this trial will be provided to the AER and AEMO.

The AER welcomes feedback on whether the proposed trial requires further consumer protections and, if so, the reasons for that view.

⁹ As per clause 4.2(e) of the [Trial Projects Guidelines](#).

¹⁰ See Box 5.1 for further discussion on this point.

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.

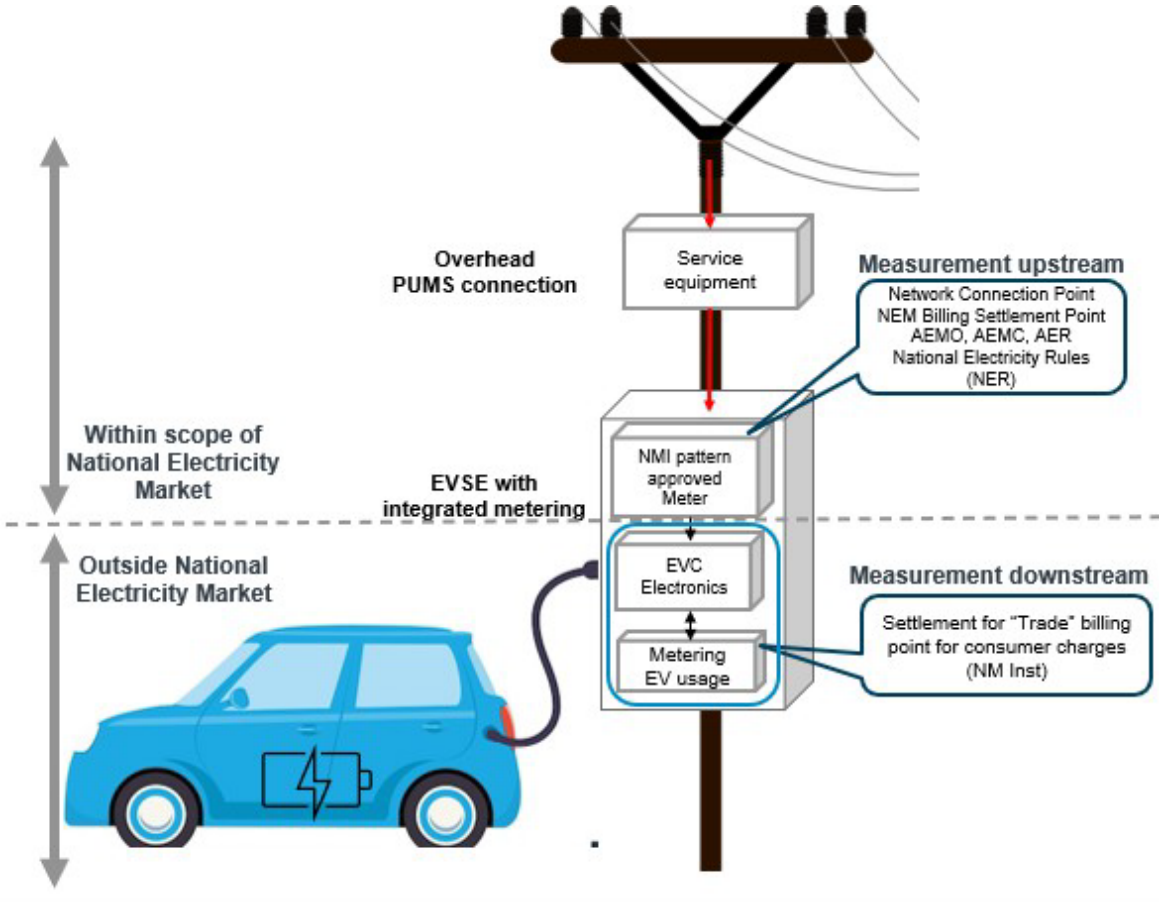
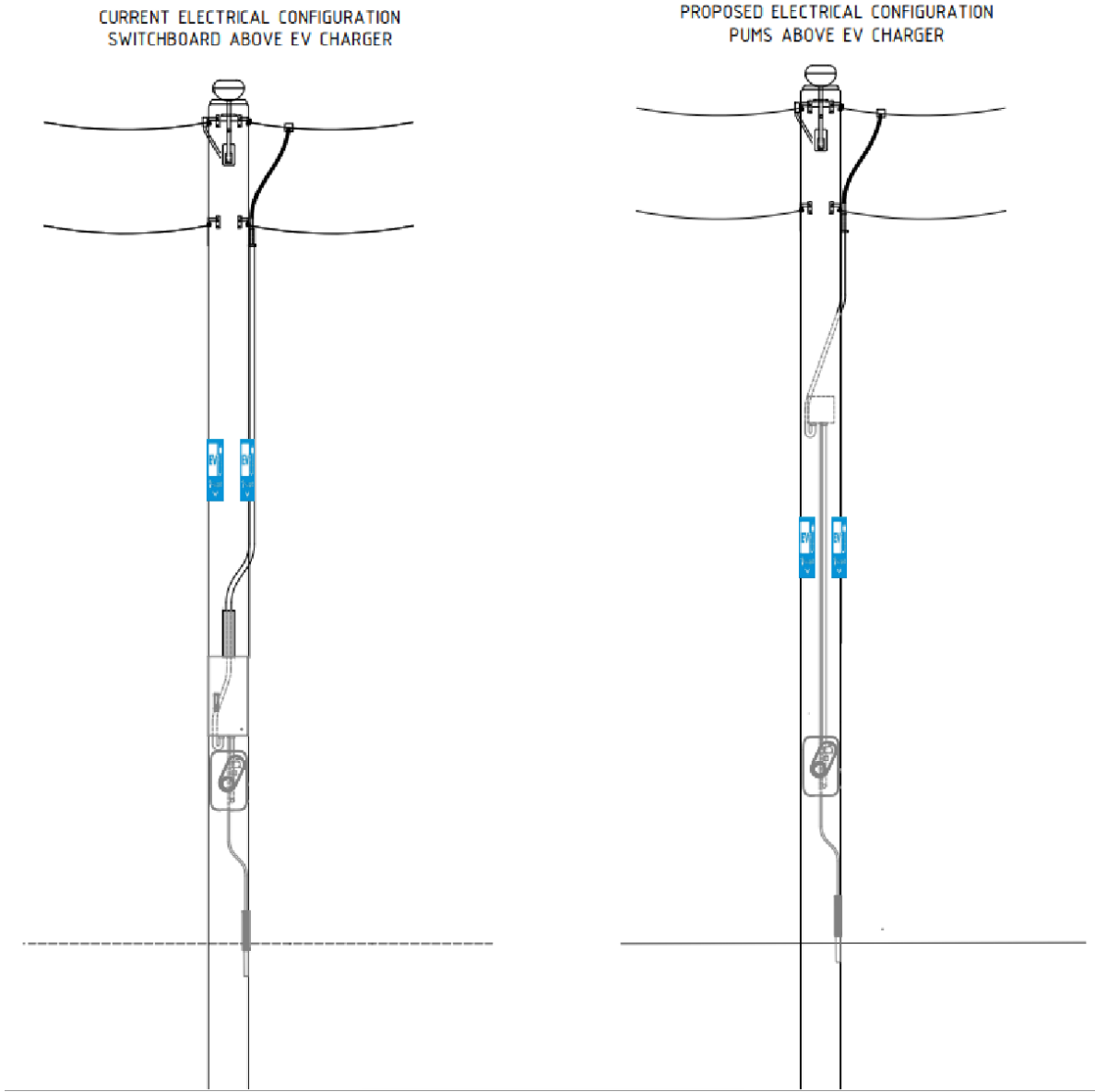


Diagram 2: Current EVC installation compared with proposed EVC metering installation removing the need for a separate metering box.



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.