12 April 2024

Lisa Shrimpton
Director
Australian Energy Market Commission
Via online portal
Ref: ERC0346

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Dear Lisa

Ausgrid response to AEMC's unlocking CER benefits through flexible trading rule change – Draft Determination

Ausgrid is pleased to provide this submission to the Australian Energy Market Commission (**AEMC**) in response to its unlocking customer energy resources (**CER**) benefits through flexible trading rule Draft Determination (**Draft Determination**).

Ausgrid is a distribution system operator (**DSO**) which operates the shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter.

DSO is an evolution of our role as a distribution network service provider (**DNSP**), marking a greater focus on the end-to-end energy system and facilitating active customer participation in markets to reduce costs for everyone. With more active customer and network energy resources connected to distribution networks, DSOs need to dynamically manage and optimise network capacity to support the clean energy transition at the lowest sustainable cost.

The electricity network industry's DSO vision recognises the vital role for flexible CER in energy markets to ensure an affordable net zero energy system. Ausgrid supports initiatives that aim to increase CER participation, customer choice and retail market competition. Project Edith[1] is one example of how Ausgrid is leading in the National Electricity Market (**NEM**) on this ambition. We are making it easier for customers with CER to be rewarded for providing network support and are removing barriers to their efficient participation in markets.

Based on the Draft Determination and the Australian Energy Market Operator's (**AEMO**) draft High Level Implementation Design (**HLID**) workshop on 5 April 2024, we understand that the AEMC's preferable draft electricity and retail rules (**draft rules**) seek to enable:

- **Small customers**' CER to be separately metered to the connection point. We understand that small customer would have one financially responsible market participant (**FRMP**) with an associated national metering identifier (**NMI**) (the primary NMI) with a type 4 smart meter that meters the customer's general electrical resources. The small customer could then opt to have one or more secondary NMIs using a new type 8 or type 4 meter to separately meter their CER more flexibly;

[1] Project Edith is a rapid demonstration that aims to showcase how the grid can facilitate technology and green energy solutions (like Virtual Power Plants (VPPs)) to participate in energy markets while staying within distribution network capacity limits – see https://www.ausgrid.com.au/About-Us/Future-Grid/Project-Edith/.

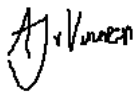
- **Large customers** to have more than one FRMP for their premises with a primary NMI associated with their primary FRMP, and a secondary NMI that has a new type 9 or type 4 meter; and
- **Street furniture,** such as street lighting and public electric vehicle charging infrastructure, (**EVCI**) will be able to use in-built measuring capability for market settlement through new Type 9 metering, removing the need for Type 7 or non-contestable unmetered load (**NCONUML**) metering arrangements. Multiple items of street furniture with one FRMP can be aggregated to one NMI through a central management system.

Attachment A provides our response to the AEMC's Draft Determination. In summary we consider that the:

- Draft rules would offer most benefit to small customers if accompanied by appropriate consumer protections.[2] These protections could include, for example, requiring entities involved in providing customers with flexible trading arrangements to be part of an ombudsman scheme, and requiring customers to have provided explicit and informed consent prior to being signed-up to a flexible trading arrangement;
- Cost benefit analysis (**CBA**) by Energeia should more deeply engage with DNSPs' concerns and the costs and benefits for our customers, for example the system upgrade costs to implement the draft rules;
- Implementation should be scheduled for late 2026 to accommodate other rule change implementation priorities including the accelerated smart meter roll out;
- AEMC's preferable rules for street lighting will likely provide customers with more accurate measurement of their consumption and AEMO with more accurate settlement data and we support these changes; and
- EVCI rules be revisited, in conjunction with the National Measurement Institute **(NMInst**), to reduce equipment and metering costs for kerbside EV chargers (and therefore customer costs) whilst ensuring sufficient metering accuracy.

We also support the Energy Networks Australia submission and welcomes the opportunity to discuss this submission with the AEMC. Please contact Naomi Wynn, Regulatory Policy Manager [redacted] naomi.wynn@ausgrid.com.au.

Regards,



Alida Jansen van Vuuren
Head of DSO

[2] We note that the Australian Energy Regulator's (**AER**) review of consumer protections for future energy services concluded to include VPPs and aggregators in the National Energy Consumer Framework (**NECF**). However it is unclear whether ombudsmen schemes will be expanded to include this data and unfortunately the AER confirmed that this NECF expansion will exclude EVCI. https://www.aer.gov.au/system/files/2023-12/AER%20-%20Review%20of%20consumer%20protections%20for%20future%20energy%20services%20-%20Final%20advice%20-%20November%202023.pdf/.

Attachment A

Topic	Description	Ausgrid feedback
Implementation timeframes	• 2 Feb 2026 – Draft rule commences • May 2026 – systems go live	Discussions in AEMO's 5 April 2024 HLID workshop indicated that AEMO preferred system upgrades to go live in May and November of each year, with a recommendation to aim for May 2026. However, Ausgrid's prefers a November 2026 go-live as it is a large reform and, in the months towards the end of each financial year, we typically focus on systems updates to implement new tariff structures and subthreshold tariffs.
Cost benefit analysis of the proposed rule rules	The AEMC commissioned Energeia to prepare a Benefit Analysis of Load-Flexibility from CER: Draft CBA (**Draft CBA**).[3] Energeia has deemed that DNSPs' costs are negligible as they "already have the capability to allocate sub-metering arrangement, such as through controlled load programs".	Ausgrid was not given the opportunity to provide stakeholder feedback into the Draft CBA. Ausgrid understands that Energy Networks Australia (**ENA**) was also not given the opportunity to provide feedback into the Draft CBA. Ausgrid recommends that the AEMC conduct a further CBA that addresses the costs and benefits for networks and their customers. For example, the Draft CBA makes the incorrect assumption that network system change costs are negligible and only factors in AEMO's, retailers' and third-party aggregators' IT system costs. AEMO's HLID applies Medium-Large "T-shirt" sizing to their changes required to market settlement and transfer system (**MSATS**). Our initial assessment is that system changes for the Draft Rule Change are at least Medium to account for the creation/maintenance of secondary settlement points, applying network tariffs to each connection point, and updated business processes to deal with secondary settlement points including connection applications processes. Additionally, the Draft CBA uses a 2020 report to determine DNSP costs associated with establishing and managing the new NMIs.[4] While it is unlikely that these costs will be significant enough meet the threshold for a cost pass through, they will still present an unplanned cost for network business they have not been reflected in the CBA.

[3] Energeia (2024). Benefit Analysis of Load-Flexibility from CER: Draft CBA. https://www.aemc.gov.au/sites/default/files/2024-02/Energeia%20report%20_%E2%80%98Benefit%20Analysis%20of%20Load%20Flexibility%20from%20Consumer%20Energy%20Resources%20Draft%20Cost-Benefit%20Analysis%E2%80%99..pdf/.

[4] Energeia (2024). Expert Advice on the Cost of Establishing a Second Connection Point. https://esb-post2025-market-design.aemc.gov.au/32572/1608712682-enegeia-expert-advice-on-the-cost-of-establishing-a-second-connection-point.pdf/.

Voluntary	Applying the draft rules will be voluntary for customers, however market participants will need to have system capability to give effect to the draft rules should customers request to apply them to their circumstances.	Ausgrid supports the draft rules being voluntary for small customers. Under the Proposed Rule Change, AEMO, retailers, third-party aggregators and DNSPs will need to implement system changes for processes that may only be adopted on a limited basis. We note that adoption would occur without customer protections afforded by energy ombudsmen schemes and the National Energy Customer Framework.
Small customers	Have their 'flexible' CER separately metered from the connection point. We understand that the customer has one Financially Responsible Market Participant (**FRMP**) with an associated national metering identifier (**NMI**) (the primary NMI) with a type 4 smart meter that meters the customer's general electrical resources. The customer can then opt in to have one or more secondary settlement points and NMIs using a new type 8 or type 4 meter to separately meter a customer's CER.	Ausgrid supports the AEMC's decision to only allow secondary settlement points under the primary FRMP for small customers in the draft rules. This avoids the customer relationship, business process and system complexity where there are multiple FRMPs for a small customer. We support the introduction of in-built device metrology through the establishment of type 8 meters. We understand the potential benefits include specific tariff offerings for CER and lower barriers to participation in markets such as frequency control ancillary services (**FCAS**), as well as, potentially, participation in Scheduled Lite. Energeia's Draft CBA appears to make a weak case for the introduction of this rule and pertains mostly to the benefit of lower-cost metering compared to type 4 meters, while also neglecting to consider the costs of system changes for DNSPs. Energeia's Draft CBA (p.45) states that "internal device metrology would be compliant with FCAS requirements". However, we understand the draft rules defer minimum service specifications for type 8 meters to AEMO procedures, but minimum service specifications generally cover energy metering and settlement requirements rather than FCAS requirements. We consider that it is already within AEMO's authority to update the Market Ancillary Service Specification to allow in-built measuring capability to record FCAS response from CER. Therefore, we do not see how the draft rule change brings any additional benefits for FCAS metering equipment. Additional benefits identified by the AEMC include visibility, greater participation in energy markets and in network support programs. We appreciate that these benefits are difficult to quantify. However, Ausgrid has not had an opportunity to participate in or review the analysis of the benefits, even if it seems plausible that they may eventuate to some extent. We agree it is worthwhile to attempt to capture additional benefits with this rule change.

		While the rule change will provide greater visibility to AEMO of VPPs, it does not offer customers protections by applying the NECF and NER and expanding energy ombudsmen schemes to flexible trading arrangements. Without these protections and requirements to ensure that customers provide informed consent and can opt out and unbundle from VPPs, customers may not be better off.
Large customers	Choose to have more than one FRMP for their premises with a primary NMI for their primary FRMP, and one or more secondary settlement points and NMIs using new type 9 or type 4 or better metering.	The CBA should reflect that a large customer may only adopt the proposed rule to the extent that they expect a net benefit from doing so.
Street furniture – street lighting	Street lighting and electric vehicle charging infrastructure (**EVCI**) to have in-built measuring capability for minor energy flows, whereby the multiple items of street furniture have one NMI and one FRMP controlled by a central management system metered by a Type 9 meter and removing the need for Type 7 or NCONUML installations.	Ausgrid supports the approach presented at AEMO's 5 April 2024 HLID workshop. New arrangements will improve metering accuracy in largely unmetered segment of the electricity market and deliver energy savings, maintenance savings, road and public safety improvements, a range of environmental gains and many other benefits to our key street lighting customers (i.e. councils). Introducing new metering type will accelerate rollout of new smart city devices to support planning and public safety that would be otherwise costly to deploy under current metering rules. Data from these devices can be used by both local and state governments to improve their infrastructure planning processes and to meet their sustainability targets. The AEMC must reconsider the threshold restrictions that have been proposed in the Draft Determination for Type 8 and 9 metering installations. Currently many Type 7 and NCONUML NMIs would be excluded from being considered for a Type 9 metering installation due to the annual energy throughput of the entire load. Type 9 metering installation will be of benefit to: o The customer for a more accurate measurement of the actual load being consumed; o AEMO for a more accurate settlement and Unaccounted For Energy (**UFE**). We also note that with new proposed loads, such as EVCI, it will be difficult to determine estimated annual throughput as usage will vary dramatically.

Street furniture - EVCI		Ausgrid supports the use of in-built measurement technology which can help reduce costs for kerbside EV charging infrastructure. We recommend that the AEMC and AEMO work closely with the NMInst to simplify metering arrangements for Type 8 and type 9 meters. In January 2024, the NMInst released a Consultation Paper on a proposed General Certificate of Approve for electric vehicle supply equipment (**EVSE**). The draft General Certificate of Approval specified by NMInst will provide consumers with confidence that they are being billed for the energy being delivered by charge point operators at a public, workplace or strata charge point. The NMInst draft General Certificate of Approval requires that 'Accuracy shall be determined at the connection point to the vehicle.' This specification, in conjunction with the draft rules, means that two measurement devices will still be required for a single charge point such as for pole-mounted chargers: o 'Type 9' meter for market settlement and billing; and o An EVSE/meter compliant with the General Certificate of Approval, at the connection point to the vehicle. Ausgrid's view is that the NMInst's final General Certificate of Approval should be developed in consultation with the AEMC as the AEMC prepares it Final Determination on the Rule Change. Industry can reduce equipment and installation costs – and therefore costs for customers – if the NMInst can work with AEMC and AEMO to allow the use of a single pattern approved measurement device at the connection point to the vehicle. This single measurement device arrangement and comparison with the present requirements is illustrated in *Figure 1* in **Attachment B**. The use of a single device can also reduce the space required for these charge points, lessening the visual impact of kerbside chargers. Reduced costs per site will allow more public chargers to be deployed by charge point operators. For this arrangement, AEMC and AEMO will need to determine a method to account for losses within the charge point (auxiliary power supplies for both AC and DC charge points, and rectification losses for DC charge points). Ausgrid would like to work with the NMInst, AEMC and AEMO to develop this single meter solution that may require changes such as classifying the

		auxiliary power supplies as a NCONUML metering installation which does not require a meter and uses other means to determine the metering data (such as type testing). Ausgrid would be happy to be part of a trial program to test these processes.
Secondary NMI/settlement point - pricing	While the Draft Determination is indefinite on pricing, Ausgrid understands from AEMC staff that networks will have the option to apply separate tariffs to the secondary NMI. The detail for these rules would occur through the AEMC's planned review of network and retail pricing.	Ausgrid's previous submissions to this Rule Change have made the case for DNSPs to have the ability to apply cost-reflective pricing to CER. However, we have found the Draft Determination to be unclear on this point. We understand from subsequent discussions with the AEMC that DNSPs will have the option, but not requirement, to apply separate tariffs to secondary NMIs. In the case of large customers, the primary FRMP would be required to pass through the secondary tariff to the secondary FRMP. We support this as an optional arrangement for DNSPs for large and small customers, while systems are updated to accommodate it. Careful consideration should be given to impacts of the proposed amendments to chapters 6 and 6B of the NER to ensure the flexibility to apply secondary tariffs to secondary settle points is retained. Ausgrid supports the upcoming review of network and retail pricing for price-responsive devices. As CER product offerings evolve, we should ensure that regulations, processes and engagement and education efforts remain appropriate to allow further pricing innovation for price-responsive devices. This could occur through ensuring: o Greater flexibility within the five-year Tariff Structure Statement process; o Transparency of the retail market including showing jurisdictional schemes on retail bills; and o Unlocking the value networks offer to address system wide challenge.
Secondary NMI/settlement point – process	DNSPs remain responsible to establishing the secondary NMI and linking it to the primary NMI	Ausgrid supports this approach as it is consistent with existing NMI practices, noting there will be costs for DNSPs to implement and maintain these NMIs, as discussed elsewhere in this submission. Ausgrid would not support removing the NMI creation role from DNSPs as there needs to be a central source of NMIs for retailers and AEMOs to access and would not be possible for retailers to do with retailer churn. Ausgrid also notes that creating a secondary entity to fulfil this role adds further complexity for customers in an already complex electricity market. Retaining this function with DNSPs also

		ensures the costs for NMI creation processes remains regulated so that customers have no more costs than necessary to access flexible CER arrangements.
Secondary NMI/settlement point – meter type	The AEMC proposes to create new type 8 and type 9 meter types allowing for in-built measurement technology. Proponents can continue to use type 4 meters for primary and secondary settlement points. Note we have assumed the following definitions in our submission: • **NMI**: national metering identifier as issued by the LNSP per NER 7.8.2 (d) • **Connection point:** ○ as per NER Glossary – "the agreed point of supply established between the NSP and … Non-registered Customer or franchise customer and includes a parent connection point;" ○ as per NSW Service & Installation Rules – "The definition of Connection Point in these Rules fulfils the requirements of defining the Connection Point in the *Electricity Supply Act 1992* (NSW). Means the junction	• Based on the drafting, Ausgrid's understanding of the new meter types in the draft rules is that: ○ Type 8 meters can be used for Small customer secondary settlement points ○ Type 9 meters can be used for: ▪ Large customer primary settlement points; ▪ Large customer secondary settlement points; and ▪ Small customer secondary settlement points. • As a result, there appears to be some ambiguity in the definition of Type 9 meters. The wording of the draft determination (p.40) seems to suggest that they cannot be used for small customer primary settlement points however the annual energy volume for street furniture and kerbside charging would result in each connection point still being classed as a small connection point, even if multiple connection points are aggregated resulting the customer being classed as a large customer. Ausgrid instead proposes that: ○ Type 8 metering installations with ±2% accuracy are permitted for: ▪ Small customer secondary settlement points; and ▪ Large customer secondary settlement points where the annual energy through that settlement point is < 750MWh/annum and the primary settlement point is also < 750MWh/annum (i.e. the primary settlement point uses a Type 4 meter, not a Type 1-3 meter). ○ Type 9 metering installations with ±1.0% accuracy (matching class 1.0 whole current meters used in Type 4 installations) are permitted for: ▪ Primary connection point and settlement point for street furniture type installations (street lighting, street furniture, kerbside charging) in public places.

	where the Distribution System is connected (by means of a Connection Device) to the Customers Installation" • **Market Connection Point**: connection point or secondary settlement point classified in accordance with Chapter 2 as a market connection point as per Draft Rule 2.3 • **Secondary Settlement Point:** A metering installation within the premises of an end user that has been established as a secondary settlement point in accordance with clause 7.2.6 of the Draft Rule. • **Metering Point**: The point of physical connection of the device measuring the current in the power conductor per NER Clause 10 Glossary.	▪ Energy through each connection point (not market connection point) is <750MWh/annum. This should be permissible regardless of whether: ○ Multiple metering points (and connection points) are aggregated to form one NMI and market connection point; and ○ Energy through each connection point is aggregated so that a customer can be classed as a Large Customer per the Retail Rules. • For type 8 and type 9 metering installations Ausgrid seeks clarity from the AEMC and AEMO around the permissible configurations of NMI, connection point, market connection point, metering point and settlement point. Ausgrid considers that the most appropriate method of allocation of a Type 9 NMI for a market connection point with multiple network connection points and metering points is all of the below must be the same: ○ One NMI ○ One TNI (Real or Virtual) ○ One FRMP ○ One Customer With this an actual TNI or Virtual TNI may be used and the NMI has one market connection point with multiple network connection points and metering points. Identification of each of these network connection points and metering points must be maintained by the LNSP and provided to the customer or FRMP in a Type 9 inventory table upon request. We also recommend that where the large customer primary NMI/connection point is a type 1, 2 or 3 metering installation, the secondary settlement point(s) must be the same type. Jurisdictional service rules (such as the Service & Installation Rules of NSW) and the National Metering Installation Requirements should be reviewed to consider the impact of one or more secondary settlement points below a connection point and

		additional metering points (whether type 1-4 or the new types 8 and 9). Ausgrid will be pleased to contribute to this review process.
Secondary NMI/settlement point - Application to connection point or to the customer	We understand the AEMC has determined to make the MP, MC, and MDP roles contestable for type 8 and type 9 metering installations (including smart street lighting) and that DNSPs could offer this service through their ring-fenced contestable service provider.	Ausgrid considers that the LNSP should have the ability to appoint the MC for type 9 NMIs for assets owned and maintained by the LNSP (e.g. street lighting). If the LNSP does not appoint the MC, then the customer (e.g. a local council or an EV charging operator) should then have the option to appoint the MC, if neither party appoints an MC the retailer must. This follows the precedent for Large Customer NMIs where the large customers can appoint the MC and where they do not, this responsibility falls to the FRMP.
In-built measurement technology	Ausgrid notes that the draft rules states "A type 9 metering installation may include a central management system".	Ausgrid supports the introduction of the terminology of a Central Management System. Type 8 metering installations may also include a central management system. In the context of smart street lighting and EV charging, central management systems may sometimes be operated by parties who are not accredited MPs or MDPs, and could possibly be the customer of the connection point. Ausgrid considers that the draft rules need to contemplate this circumstance. A change to clause 7.15.4 allows an "access party" to have access to metering data. This should be extended to large customers.

Attachment B: Roadmap of metering arrangements for public EV charging

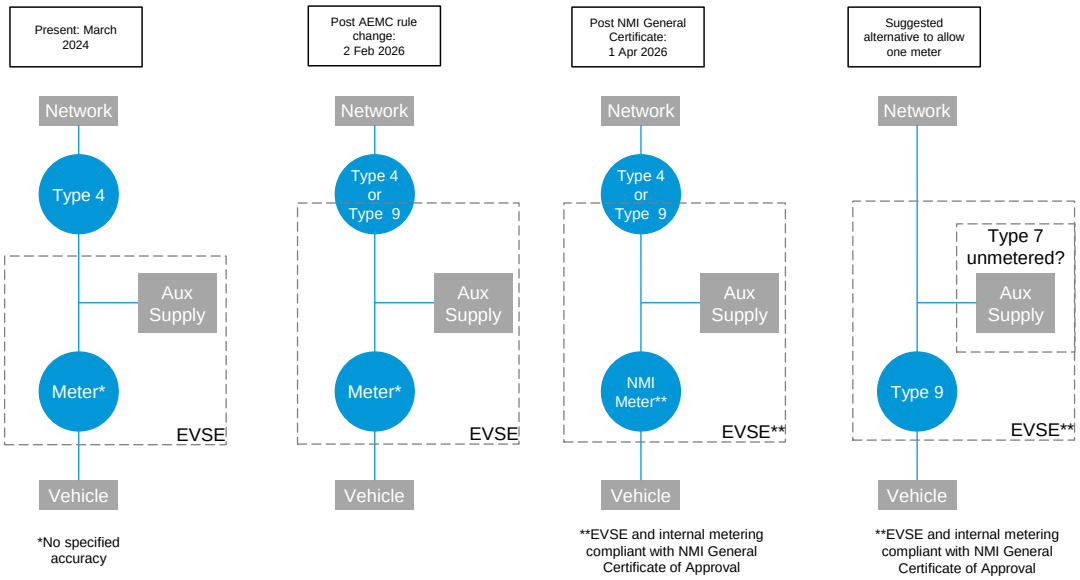


Figure 1: Roadmap of metering arrangements for public EV charging including a suggested alternative to use only one measurement device rather than two.

Present: March 2024

Two measurement devices used for a single charge point:

- 'Type 4' meter required for market settlement/billing; and
- EVSEs usually have onboard measurement for control of its charging functionality with no specific accuracy requirements in Australia.

Post AEMC Rule Change 'Unlocking CER benefits through flexible trading': 2 Feb 2026

Two measurement devices used for a single charge point:

- 'Type 4' or 'Type 9' meter required for market settlement/billing; and
- EVSEs usually have onboard measurement for control of its charging functionality with no specific accuracy requirements in Australia.

Post NMInst General Certificate of Approval or EVSE: 1 Apr 2026

Two measurement devices used for a single charge point:

- 'Type 4' or 'Type 9' meter required for market settlement/billing; and
- EVSE compliant with General Certificate of Approval.

Suggested alternative to allow use of a single meter

Single measurement device used for a single charge point:

- EVSE compliant with General Certificate of Approval and compliant with NER 'Type 9' metering, used for both market settlement/billing and trade.

'Losses' between the network connection point and the measurement point (e.g. auxiliary supplies, power conversion losses) will need to be accounted, such as classifying the auxiliary power supplies as a Type 7 metering installation which does not require a meter and uses other means to determine the metering data such as type testing. This concept can be extended to multiple charge points at a single connection – dual socket chargers could have a Type 9 meter on each output.