12 September 2023

GPO Box 2603
Sydney South NSW 2001

Submitted via AEMC website.

Dear Lisa and team,

ERC0346 – Unlocking CER Benefits through Flexible Trading – Direction Paper

PLUS ES welcomes the opportunity to provide feedback to the Australian Energy Market Commission's (**AEMC**) Direction Paper - Unlocking CER Benefits through Flexible Trading – ERC0346.

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

With the increasing uptake of Consumer Energy Resources (**CER**), PLUS ES recognises that there are opportunities to unlock benefits for consumers, whilst simultaneously achieving an effective technical integration of CERs in the market.

PLUS ES' key recommendations are:

- **Metering of second settlement points**: Current metering components and minimum services specifications should remain applicable where the metering installation is to be used at a second settlement point. Especially, where the metering device will be measuring bidirectional flow and/or the data will be used for market settlements and billing. Equally, roles and responsibilities should also ensure market data integrity is maintained.
- **Minor energy flow metering for Street lighting and street furniture**: The current metering components and minimum service specifications disincentivises the metering of sites with minor energy flows such as street lighting and street furniture. Downstream industry benefits could be realised for assets which are currently unmetered, with the introduction of a different metering installation category, where the service specifications and components are appropriate for their use case and the integrity of market data is maintained.

- **Reducing cost and barriers to deliver operational efficiencies**: when managing sites with General Light and Power (**GLP**) and CER arrangements.

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

Sincerely,

Nural Omer
PLUS ES Head of Metering Operations

A. Optimising the value of CER flexibility – separately identifying and managing responsive CER

PLUS ES supports that optimisation of CER flexibility requires the ability to separately identify and manage controllable CER (individually responsive or controlled via an external device). In determining a regulatory framework which delivers the flexibility, efficiency and market optimisation, the following points have been provided for the AEMC's consideration.

- **Second Settlement Point** – Market operations need to ensure the end-to-end management of a second settlement point, both physically and in market systems. The creation of second settlement points should be restricted to CER assets where, the asset is controllable and at least one of the below criteria is met:
  - The Large customer is to engage another energy service provider for the CER assets.
  - Current metering arrangements do not support separate identification and management of the CER/s.
- **Visibility of** CER - Whilst non-market arrangements exist today, that does not preclude them from impacting the network supply. Irrespective of the arrangement option, CER assets should be visible, at minimum, to parties who have a financial interest at the connection/settlement point. For example, the LNSP should be a stakeholder of any CER connected to the network, irrespective of flexible trading arrangements with the FRMP, as it is equivalent to connecting a new load to the network and potentially may impact on the LNSP connection agreement.

  An additional challenge for the market is not having awareness that CER assets have been installed downstream of a connection point. A mechanism needs to be defined to ensure installed CER assets which may play a role in the stability of the network are visible. The CER asset installer should be accountable for a more robust outcome. Placing obligations on roles downstream of the installation process, such as the LNSP, will dilute the effectiveness as they are not always informed that CER assets are installed at a premises.
- **Multiple customers at connection points** – Considerations in the flexible trading options and rule making process need to factor the multiple customer model such as landlord versus tenant, 3rd party offerings, and the associated challenges for small customers.
- **Metering for second settlement points (CER measuring device):** Second settlement point measuring devices/metering facilitating the measurement and collection of market

data for settlement and billing purposes, must comply with the same metering requirements and minimum services specifications of the primary settlement point.

- The current metering components defined in the Rules are agnostic of technology and flexible enough to not constrain innovation. e.g., a device that has either a visible or an equivalently accessible display etc.
- The minimum services specifications are also applicable especially if the devices will be measuring bidirectional flow. As an industry we must ensure we do not 'undo' any technological advancements/capabilities we have implemented i.e. remote functionalities such as energisations.
- Energy flow at the second settlement point cannot be assumed to be minor flow. That is, these points have the potential to exceed the energy flow of the primary settlement point depending on the assets connected.

As an MC/MP, we are also obliged to comply with the Metrology Procedure and NER which detail what type of equipment we use. The class of equipment is determined by the consumption. We consider this framework would be suitable for verifying whether an alternative measuring device is permitted to be used at the second settlement point.

- **Electrical wiring at the premises:** Second settlement points, should have the CER hard wired to the settlement point. The existing electrical wiring requirements at a customer's premises will determine any re-wiring impacts. For example, parallel metering will require rewiring to the extent that all CER endpoints would have to be connected essentially to the meter board. Currently, things like hot water and pool pumps are just connected to the general supply wiring. This could be one advantage of subtractive metering.
  The introduction of changeover switching between settlement points, as depicted in AEMO's FTM2 model, introduces a further layer of market complexity and safety considerations. There shouldn't be any dynamic switching of loads between settlement points:
  - There are jurisdictional safety operation issues if loads or CER/s were to be switched automatically and
  - Irrespective of the flexible trading arrangements, it would be challenging to maintain synchronisation between the resources/back-office system knowledge of the CER and the connection location that is documented.
- **Roles and responsibilities at second settlement points:** To mitigate operational costs to the industry, proposed options and associated obligations should leverage current market state. That is,
  - Every settlement point must be assigned an individual NMI and the market participants responsible at that NMI.

- Multi-element meters can only be allocated to a single NMI. Metering equipment with multiple elements can only be asset managed as a single device, with a single customer. It cannot support two NMIs.
- To ensure the data integrity, accuracy, and quality, is maintained, the MP and MDP requirements and accreditations should align with the functionalities, services and specifications of the measuring device/metering installed.

- **Multiple NMI and one site address**: Whilst we can have multiple NMIs today at a site address, the relationship between the NMI and the site address remains one-to-one, as the site address is uniquely identified. For example, in multi-occupancy scenarios where multiple NMIs exist, the site address is defined by a unit number supporting the one-to-one relationship. Potential model options need to identify and link multiple NMIs to the one site address and the connection point.

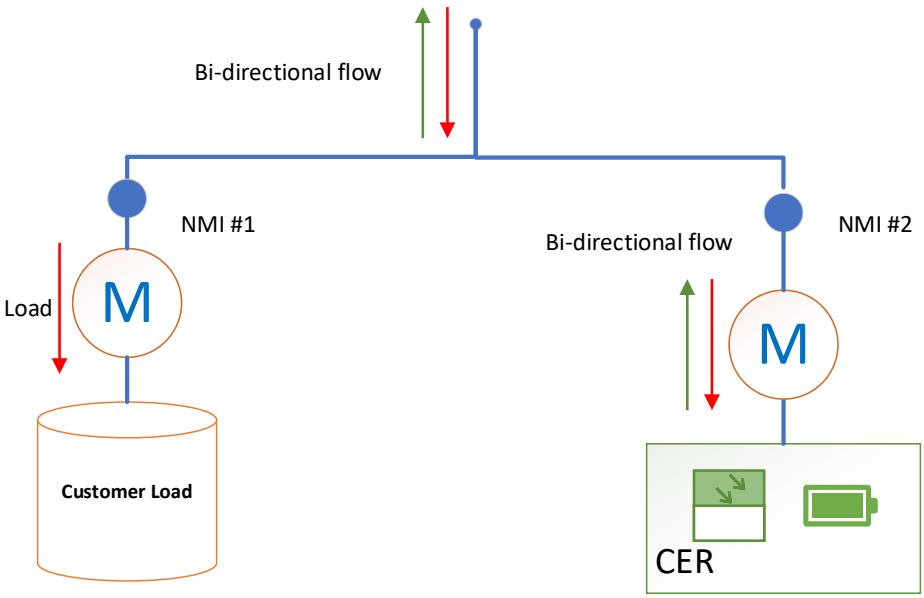
SEPARATELY IDENTIFYING AND MEASURING CER - PROPOSED OPTIONS

CER arrangements should enable greater choice and enable customers to determine what options better capture the value of their investment in CER. Additionally, PLUS ES propose that future determinations should also consider incorporating a 'grandfathering' clause, at a minimum, for *existing* small customer CER arrangements, to mitigate imposing additional costs to the customer.

PLUS ES considers that the 3 proposed options could support different use cases. Whilst there are market operational challenges with each of the options, we believe the subtractive model while it exists today in the form of Embedded Networks, will impose a cost burden to market participants to separately identify and manage responsive CER and overcome its operational challenges.

Our approach has considered the advantages and challenges of each proposed model. For simplicity, we have represented the GLP and CER assets on separate settlement points.

1. Parallel Metering



Benefits:

- Similar market structure/relationships as today, reducing costs to adopt. That is, NMI, Meter, FRMP, even in some instances one connection point for multiple NMIs. Examples of current use cases are: multi occupancies which have one connection point and then each occupancy has its own NMI, Metering and FRMP or a granny flat at a premise.
- Each settlement point (meter/NMI) can be managed independently - Supports identifying and managing CER independently from the customer's consumption load (GLP), including wholesale activities.
- This model could support multiple settlement points for CERs and different FRMPs at each settlement point.

Challenges/Changes:

- To mitigate customer costs, enhancements are required to the network access charge cost. (It is our understanding that LNSPs charge at the NMI level)
- Management and customer awareness of two separate settlement points with a move-in customer.

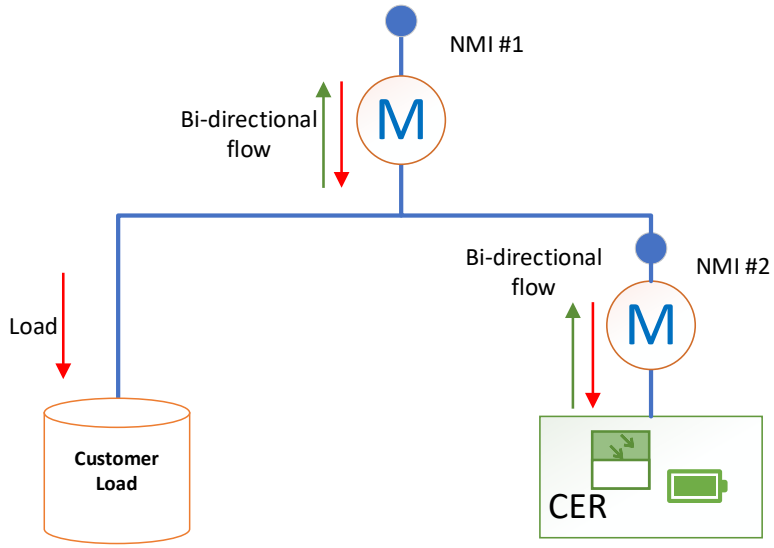
2. Multi Element Metering

For CER, multi-element metering is only applicable for one customer and one NMI – cannot associate one meter across two NMIs / two settlement points.

Multi element metering could deliver a pathway for an asset to separate different parts of a consumer's resources to provide independent control, data monitoring and consumer device level information. This could be a viable option for a customer at a premises, with **one** FRMP, potentially mitigating the requirement for a second settlement point. However, it would not support wholesale market activities.

Second settlement points and multiple FRMPs - Whilst this option appears to be a 'one in all' option, it would be a highly complex undertaking and costly delivery, requiring re-engineering of the market model and market/participant business and system processes. PLUS ES has reservations on the benefits justifying the high costs.

3. Subtractive Metering



Following further analysis and industry discussion, PLUS ES supports that subtractive metering option is also a potential option for a customer with the below considerations:

Benefits:

- Similar industry structure exists in the 'Embedded Network' (**EN**) model. Development

costs on AEMO market systems and for participants who have already implemented this model could be significantly reduced.

- Could support multiple FRMPs and service providers of CER assets.

Challenges/Changes:

- Market participants who have not implemented the EN model, would have development and implementation costs.
- Connections are behind the primary metering installation; that is, within in the customer's electrical infrastructure. To support network planning and maintenance, the LNSP may require visibility to what is connected behind the meter (primary settlement point) and how it is being used, not just at the connection point. The current EN model does not support this level of visibility and would require changes.
- Energisation activities at the connection point or the primary settlement point: De-energisation or re-energisation undertaken at the connection point or primary settlement point will impact all settlement points. That is, all settlement points will be taken off supply or energised. This has notification issues for different FRMPs, service providers for the second settlement point and potentially different customers.
- Where different parties are assigned to the second settlement point, those parties must have visibility on the actions of the upstream settlement point.
- To mitigate customer costs, enhancements are required to the network access charge cost. (It is our understanding that LNSPs charge at the NMI level)
- Management and customer awareness of two separate settlement points with a move-in customer.
- Subtractive metering can introduce some inaccuracies when considering time varying bi-directional loads, as the subtraction cannot be accomplished in real time but is only done based on the published interval data. It is PLUS ES' understanding that this approach had previously been discouraged.

B. FLEXIBLE TRADING WITH MULTIPLE SERVICE PROVIDERS

PLUS ES supports AEMC's view and its initial position to not progress further with AEMO's FTM2 for small customers.

Enabling multiple energy service providers for large customers has also added another level of complexity. We recommend for market operational efficiency, the principle of 1 NMI and 1 FRMP per settlement point needs to be maintained.

C. STREET LIGHTING AND STREET FURNITURE

PLUS ES supports that street lighting and street furniture such as the identified Unmetered Load (UML), could potentially benefit from revised metering specifications. For example, where a display or the ability to view what is being registered is required for an end consumer meter, that capability may not be a requirement for street furniture. Accordingly, the MP and MDP accreditations for this metering type should reflect the metering specifications.

- Whilst UML is low and predictable, once metered the data integrity must be ensured and maintained. That is, the metering device must be NMI accredited, the data validated, and the metering device tested[1] for accuracy. Hence, changing the metering specifications could make it more efficient to install but not necessarily mitigate operational costs.
- The applicability of minor energy flow metering should also consider whether the energy flow at the asset could be considered minor and predictable.
- Whether or not these low energy devices require a disconnect capability is a consideration for any revised metering specification.
- Whilst Public EV charging stations could be defined as street furniture, we do not support that their energy flow could be defined as low and predictable.

[1] Where testing requirements are defined according to the technology available – not necessarily via physical inspections