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Australian Energy Market Commission
60 Castlereagh Street
Sydney NSW 2000

Submission via website: **www.aemc.gov.au**

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Unlocking CER benefits through flexible trading

CitiPower, Powercor and United Energy welcome the opportunity to respond to the Australian Energy Market Commissions (AEMC) directions paper on unlocking consumer energy resource (CER) benefits through flexible trading.

The AEMC's initial position is to not progress with the option to allow for multiple financially responsible market participants (FRMPs) to operate at a single residential or small-business premise. Instead, the AEMC is considering a new option where there would be one primary retailer at a residential or small business premise with additional settlement points behind the meter. The AEMC notes that it will allow aggregators to operate and trade at the additional settlement points.

We do not support AEMC's new proposed model given that our concerns raised during the first consultation remain relevant for this proposed model. We also remain concerned with the AEMC's preliminary position to further consider flexible trading arrangements for large customers. Our key recommendations include:

- **Compliance of dynamic operating envelopes**: a secondary aggregator or FRMP will have limited incentive to comply with a distributors dynamic operating envelope (DOE) as no use of system agreement exists. The AEMC must develop a compliance framework to ensure DOEs are complied with and there is a clear course for enforcement in the circumstance compliance is not met. We consider it essential that secondary aggregators are required to be licensed
- **Consumer protections and monitoring of outcomes:** there is a material risk residential consumers will be taken advantage of, given the complexity. General low levels of energy literacy and willingness to engage, exposure to some of the most volatile commodity markets in the world and conflicting interests can lead to potential exploitation. We believe consumers must have the same protections and rights with their secondary aggregators as they do with their primary FRMP. In addition, we recommend there be oversight of secondary aggregators profits by regulators given the large information asymmetry between market settlement prices and money returned to consumers
- **Visibility for distribution networks behind the meter:** there is a risk that there will be a large amount of aggregated load or exports being controlled by third parties which are invisible to the distribution networks. This will have perverse impacts on efficient network planning including system security and emerging minimum demand challenges. The AEMC should consider how to enable network visibility in the context of the rule change.

We also remain concerned that the principles of multiple parties behind the meter does not align with our customers values and motivations, particularly for small residential customers. Multiple parties behind the meter does not account for a holistic coordination of household CER including optimising self-consumption. Under this model, individual aggregators will not be incentivised to optimise a consumer's consumption and generation to maximise self-consumption and/or minimise a consumer's bill as they will be seeking arbitrage opportunities within energy markets.

Unlocking CER benefits can be achieved more simply and at a lower cost to consumers. We are investing to manage the energy transition more dynamically and efficiently, including by engaging our consumers to

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participate and be rewarded for demand management, publishing yearly tenders for non-network solutions, and offering tariffs that provide both network management services and financial incentives to consumers. Consumers can also receive value from their CER by using a home energy management system (HEMS) which creates value through optimising generation, storage, and use in response to wholesale energy prices and network tariffs for lower energy bills.

We continue to recommend that the AEMC conduct a thorough cost-benefit analysis based on the incremental benefit being unlocked through this rule change and the costs to do so.

Should you have any queries, please contact Ellen Lukin on 0428 824 858 or elukin@powercor.com.au.

Yours sincerely,

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AEMC consultation questions

Q1 Energeia cost and benefit analysis approach and methodology

Energeia's project is being referred to as a cost-benefit analysis, however, page 12 of Energeia's scope states the scope of the engagement is **not** to estimate the impact of the potential costs of the rule change. Energeia states the scope is focused on only estimating the quantum of **system benefits.**

We recommend clear language by the AEMC on the scope of Energeia's project. If the scope of Energeia's engagement is to only calculate benefits, we recommend it is referred to as a benefits assessment. Our understanding is that following Energeia's benefits assessment, the AEMC will then undertake a cost analysis separately (i.e., not through Energeia's scope). We recommend the AEMC articulate the process in which a complete cost-benefit analysis will come together, and which options are being covered and considered.

Within Energeia's scope, it includes estimating the reduction in distribution and transmission costs by having access to increased load flexibility. We recommend Energeia engage with network businesses in estimating and sense-checking this value.

On the AEMC's costing exercise, we strongly recommend a realistic investigation of the potential costs faced by residential customers in engaging with these new services. For example, in many of the models being contemplated by the AEMC there will be high retrofit costs for brownfield sites in the way of rewiring.

Q2 Key considerations for separately identifying and managing flexible CER

While we are supportive of reform enabling customers to unlock additional value from their CER, we remain concerned that the AEMC's reform is not fit-for-purpose. Implementation issues that must be considered for the draft determination, include:

- Compliance and enforcement regime to allow for the implementation of DOEs: there is no use of system agreement between distribution networks and behind the meter aggregators. The AEMC must develop a compliance framework to ensure DOEs are complied with and there is a clear course of enforcement in the circumstance compliance is not met
- Customer protections framework: there is a material risk of consumers being taken advantage of, given the complexity of multiple parties operating behind the meter. A customer protections framework must be designed to ensure consumers have the same protections and rights with their secondary aggregator as they do with their primary retailer
- Visibility for distribution networks of behind the meter CER: there is a risk that there is a large amount of load controlled by third parties which is invisible to the networks. Secondary aggregators will remotely co-ordinate and operate "aggregated CER" across multiple customers, hence, the outcomes and impacts may not be as random or diversified as per the actions of individual end use customers. This may have perverse impacts on efficient network planning and system security. The AEMC should consider how to enable network visibility in the context of the rule change
- Network tariff pricing incentives: This model is likely to encourage inefficient use of networks as secondary aggregators are unlikely to be exposed to cost-reflective network price signals. Network demand and extreme positive or negative spot prices are not always well correlated. Frequency control ancillary services (FCAS) can be provided at any time, and this can exacerbate network constraints at times of low demand and potentially at times of high demand. This implication should be considered by the AEMC in its policy design.

We strongly recommend the above implementation issues are considered **during the design phase of the policy reform,** as opposed to being considered after the final determination. Contemplating the implementation challenges earlier will allow for a more fit-for-purpose policy design.

Q3: Enabling a second settlement point at a single connection

The costs of enabling a settlement point at a single connection vary across the four models being considered by the AEMC. Establishing a second connection point, parallel metering and multi-element metering would have material upfront costs for small customers, particularly in brownfield sites, to retrofit metering panels and to enable rewiring.

While we note subtractive metering is the least cost, we do not agree with the assumption that there will be zero costs to distributors. Likely costs for distributors may include capability uplift to respond to consumer queries on their arrangements, changes to network tariffs, capability uplift for line workers for rewiring, distributors communicating beyond the meter, ensuring consumer protections are upheld, safety implications for behind the meter switching, compliance with DOEs and/or augmentation to support non-compliance with DOE or increased export capacity to support secondary aggregator activity.

The AEMO proposed model shown in figure 4.1 allows for switching and hence arbitrage between different settlement points, this risks back-feed and safety risks associated with alternative points of supply. Such designs need to be consistent with AS3000, the relevant Service and Installation Rules and should involve consultation with jurisdictional Electrical Safety Regulators.

We strongly recommend the AEMC conduct **case studies** for realistic costs associated with these models for small residential customers.

Regarding the AEMC's question on what type of CER should be allowed to be separately identified and managed, we recommend the AEMC explore the **customer protections** that will be designed for this reform. Without consideration of the rights and protections of customers, it is difficult to say which types of CER are appropriate. We also recommend the AEMC actively engage with consumer representatives on this question.

Q4: Using other devices for CER measurement and reward

The AEMC must ensure any devices used for CER measurement and reward are accurate. We recommend trials and testing to ensure accuracy and for any new minor flow meters to require compliance with the National Measurements Act and appropriate AEMO/National Electricity Rules protocols.

Q5: Establishing two connection points at a single premises

Installing a second physical connection point for small customers to the distribution network has material costs and barriers. The costs associated with new connections may be a new meter, the use of the distributor's service truck to turn on the electricity supply, rewiring of meters. There are also safety considerations as well as physical space limitations for customers.

For these reasons, we do not support establishing two connection points for small customers. We also do not support subsidising second connection points across the customer base as it is not equitable.

Q6: AEMO's specific FTM2 for small customers

We are supportive of the AEMC's initial position to not progress further with AEMO's FTM2 for small customers. In saying this, the concerns raised with FTM2 still exist in the context of the AEMC's currently proposed model given there still will be multiple parties behind the meter (i.e., primary retailer, secondary aggregators).

The AEMC must consider the implementation issues raised in response to Q2 to design a more fit-for-purpose reform.

Q7: AEMO's FTM2 proposal for large customers

There are implementation issues and risks that must be addressed before AEMO's FTM2 is further contemplated for large customers. Firstly, there must be careful consideration of the regulatory framework that would govern the relationship between the distribution network, the primary retailer, and the secondary FRMPs of large customers. Large customers have a large impact on our network. These loads impact how we efficiently plan our network and manage system security events including minimum demand. The regulatory framework governing this relationship particularly pertaining to DOE compliance is crucial.

The AEMC must develop a compliance framework to ensure DOEs are complied with and there is a clear course for enforcement in the circumstance compliance is not met. We consider it essential that secondary FRMPs are required to be licensed and subject to use of system agreements with distributors. If this type of compliance enforcement regime is not introduced, there is a risk of material costs to the distribution network in needing to account for non-compliance of DOEs by large customers with secondary FRMPs. These costs will be borne across the whole customer base.

In the absence of a use of agreement, a secondary FRMP has limited incentive to comply with their DOE. Therefore, licencing is important as a breach of a use of system agreement can be a trigger for a loss of licence, which would act as a more credible threat to secondary FRMPs.

We recommend AEMO's FTM2 model is trialled for large customers to understand the logistics and expected benefits prior to the reform being introduced.

Q8 and Q9: Multiple FRMPS: Embedded networks model and AEMO'S FTM2

There are several consumer protection issues with the embedded network framework that should be considered if it is to be used as a basis for the regulatory framework for separately identifying and managing CER.

From a distribution's perspectives, a key challenge with the embedded networks model is the lack of visibility. Understanding the CER behind the connection point allows us to plan and operate the network efficiently and safely including managing system security and emerging minimum demand challenges.

There is a risk that there is a large amount of load controlled by third parties which is invisible to the networks. Secondary aggregators will remotely co-ordinate and operate "aggregated CER" across multiple customers, hence, the outcomes and impacts may not be as random or diversified. This may have perverse impacts on efficient network planning and system security. Currently distribution networks have no visibility of, and use of system agreements with On-Market or Off-Market Child connection points within an Embedded Network, and an Embedded Network Operator has a licence exemption, not a licence, and is not a Market Participant.

We support having visibility of these resources. The AEMC should consider how network visibility will be enabled under this model for both small residential customers and large customers.

Q10: Opportunities and benefits of improving existing arrangements

We are generally supportive of the opportunity for improving the measurement of street lighting and public furniture. We recommend distributors are the metering coordinator (MC) for both street lighting and public furniture as it will be the lowest cost to customers.

Q11: Market functions and obligations – metering roles

We agree with the AEMC's position that distributors should be performing the function of MC for street lighting and other street furniture we manage. As the MC, distributors can manage whether they are also best placed to

be the metering provider (MP) or metering data provider (MDP) or break up the role based on skills and experience.
These metering devices should be compliant with the National Measurements Act, be subject to specific NER Chapter 7 and AEMO Procedures requirements, and like Type 7 should be subject to a specific level of accreditation for Meter Providers in the NER, and their installations be compliant with AS3000, and defined within the relevant Service and Installation Rules.

We recommend distributors are also the MC for street furniture not managed by the distributor. Street furniture are in public spaces where safety is complex. It should be the distributors role as the MC to work with industry partners on the best solution. Loads are too small to support the involvement of multiple parties. If this is considered, the addition cost of the introducing the competitive framework should be considered against the expected benefits.

Q12 and Q13: Technical requirements and implementation and transition

We are supportive of targeted regulatory sandboxed trials for small-device metering to understand the benefits and ensure the functional requirements are up to standard to enable consumer protections and operation of the market. Testing any new metering specification is critical. Typical testing should be conducted following attributed samples based on Australian measurement standards. We recommend AEMC consider the legal instruments in where the minimum service specification will sit. We recommend a new set of requirements are drafted in the NER i.e., "Type 8" metering under Schedule S7.4.3 *Accuracy requirements for metering installations*. In NER Chapter 7, these should specify an upper single phase current limit operating rating of 10A, above which the minimum service specification / type 4 metering requirements would apply.

These devices must be compliant with the National Measurements Act, and defined within AEMO procedures, with a metrology accuracy ideally at 1% but no worse than 2%.

Provided a trial is first conducted to test minor energy flow meters and necessary metering requirements, we support minor energy flow meters for street furniture and support distributors to act as the MC across public lighting and street furniture.