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Australian Energy Market Commission (**AEMC**)
Level 15, 60 Castlereagh Street
Sydney NSW 2000

To whom it may concern

Response to CER Benefits through Flexible Trading Directions Paper

Energy Locals Pty Ltd (ACN 606 408 879) and its related entity, Energy Trade Pty Ltd (ACN 165 688 568) (**Energy Locals**) welcomes the opportunity to provide a submission to AEMC's CER Benefits through Flexible Trading Directions Paper (Paper).

Energy Locals specialises in energy procurement and management, energy generation and the provision of energy efficient technologies for residential, commercial, and industrial projects. Energy Locals in also in partnership with Tesla supporting the SA VPP, which is one of the biggest residential battery VPPs in the world.

Energy Locals is one of the largest and fastest growing embedded network operators in the National Energy Market (NEM) and has deployed millions of dollars of investment in Distributed Energy Resources (DER). The processes and regulations in dealing with multiple Financially Responsible Market Participants (FRMPs) within an embedded network is well established and understood by both businesses.

Our response builds on our previous submissions[1] and is structured as a short paper. We have provided more detailed feedback in our responses to the specific questions at the end of this paper.

Main Benefits of Flexible Trader Model 2
In our previous submissions, we recommended a trading structure similar to Flexible Trader Model 2. We are of the opinion that introducing flexible trading, by allowing customers to identify and aggregate their CER, will bring substantial advantages. The proposed approach holds the potential to streamline and enhance the flexibility of the regulatory framework in the foreseeable future.

[1]Quinbrook Infrastructure Partners, Submission on Unlocking CER benefits through flexible trading consultation paper, December 2022. See: https://www.aemc.gov.au/sites/default/files/2023-03/Rule%20Change%20Submission%20-%20ERC0346%20-%20Quinbrook%20-%2020230228.PDF
And Quinbrook Infrastructure Partners, *Submission on P2025 Market Design Consultation Paper*, November 2020.See:https://energyministers.gov.au/sites/prod.energycouncil/files/publications/documents/Quinbrook%20Response%20to%20P2025%20Market%20Design%20Consultation%20Paper%20.docx
And Quinbrook Infrastructure Partners, *Submission on Market Ancillary Service Specification – DER and General Consultation*, August 2021. See: https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2021/mass/submissions/quinbrook.pdf?la=en

We are supportive of the proposal and believe that a staged approach that initially targets larger customers would permit iterative enhancements as the changes take effect. This strategy ensures that the transition to the new framework is as seamless as possible for smaller customers, even if it entails a minor delay.

Keynotes

In our view, some of the keynotes in the Paper include:

- **Cost-reflective network pricing**: We oppose AEMO's stance that secondary settlement points should be exempt from network charges based on the reasoning that the cost is ultimately borne by the customer regardless of the approach. AEMO's viewpoint overlooks the dynamic characteristics of the services in question and the commercial structures underpinning these novel offerings.

- **Sub-metering at customer sites**: We support the ability to sub-meter at customer sites. We believe allowing device level metering allocates risk to where it is best managed and reduces barriers to entry and business model innovation. This change is likely to increase FCAS supply, reduce system costs and prices to customers while improving the long-term efficiency of the NEM[2].

- **Embedded Network Framework:** We believe individual customers are best placed to make choices about their usage. We do not believe there is a convincing case that there is anything "manifestly unsuitable" arising from customers choosing to establish embedded networks.

Conclusion

The drive towards adopting renewable electricity sources is being propelled by both economic factors and shifting consumer preferences. Numerous customer energy resources, including battery storage, solar PV and electric vehicles have become integral parts of the Australian power system. Establishing a viable approach to incorporating these resources into the National Electricity Market holds the potential to unleash advantages for the power system, electricity market, and customers. The formulation of a meticulously crafted Flexible Trader Model, tailored to suit both residential and commercial customers as well as industrial enterprises, represents a significant stride in this journey. We endorse its implementation and look forward to participating in the process of refining its design.

We would like to take this opportunity to thank AEMC for the opportunity to provide this submission. I would be pleased to support AEMC's review as required and look forward to the AEMC's recommendations.

Yours faithfully,

Adrian Merrick
Chief Executive Officer
Energy Locals Pty Ltd

[2] See: Quinbrook Infrastructure Partners, *Submission on Market Ancillary Service Specification – DER and General Consultation*, August 2021. See: https://aemo.com.au//media/files/stakeholder_consultation/consultations/nemconsultations/2021/mass/submissions/quinbrook.pdf?la=en

RESPONSES TO THE AEMC'S SPECIFIC QUESTIONS

We have only responded to the AEMC's questions in the consultation paper where we have a specific comment.

AEMC Questions	EL Response
Question number	
QUESTION 1: **ENERGEIA COST AND BENEFIT ANALYSIS APPROACH AND METHODOLOGY** **1. Are there any other considerations or issues you consider should be included in Energeia's assessment approach and proposed methodology?**	1. In principle we agree with the analysis approach and methodology proposed by Energeia but make the following notes for consideration. • Although Energeia is proposing to use 30-minute prices in their modelling, we believe that this will lead to underestimation of CER flexibility. Many CER assets such as small residential batteries provide greater flexibility in 5-minute intervals and their flexibility is reduced by increasing the interval period to 30-minute. • Energeia is proposing to use 2022 prices, however the wholesale prices in 2022 were significantly higher than comparable years due to geopolitical reasons in the EU. Using a higher base price for the analysis might lead to overestimating the economic benefits of CER. We propose using an average of the last few years or using AEMC and AEMO price forecasts. • In segment scaling, we note that different CER devices will likely have different scaling rates in different states, e.g. PV solar is likely to have a higher growth rate in QLD while EV chargers might have higher growth in NSW and VIC. • In quantifying the flexibility on customer bills, Energeia is proposing to use representative customers. We note that the diversity in customer types and their load means that a probabilistic analysis (Monte Carlo) might reveal more insights into customer impact than the representative customer approach. • We note that the report is not clear whether EV assets will be modelled as one-directional or bidirectional (V2G capable). We note that the potential for EVs to discharge to the grid is likely to be common in Australia in the next few years (similar to Japan). • The flexibility load in Table 3 should only consider the electric load of the sub loads, not loads from other fuel types. For instance, the estimated flexible load of water heating in Table 3 is 96.1PJ. However, from Figure 3, only about 40PJ is from electric water heaters.

	• Although Energeia has provided their reasoning in excluding HVAC devices, we note that residential HVAC systems will have great potential in demand response and peak demand reduction during hot summer days. HVAC systems may not have high energy (in PJ or MWh) consumption per annum, but a high power rating (in MW). ARENA estimation for hot summer days of up to 8.4GW (around 25% of NEM peak summer demand) can be contributed to HVAC (mainly cooling). In our view, HVAC sub loads should be included in the analysis.

QUESTION 2:
 	
KEY CONSIDERATIONS FOR SEPARATELY IDENTIFYING AND MANAGING FLEXIBLE CER
 	
1. What benefits can be gained through separately identifying CER irrespective of whether there is a single FRMP or multiple FRMPs at the customer premises?
 	
2. Are there additional implementation issues that we should consider for the draft determination (and draft rule if needed)?
	• Enabling consumers to participate their CERs in flexible trading potentially has several advantages.
	  ○ Customers could have different network and retail tariffs for their CER.
	  ○ The FCAS response of CER could potentially be measured at CER settlement point if MASS is updated to allow this, and
	  ○ Retailers can devise separate terms and conditions for the CERs.
	• To align CER proposals with price-responsive resources proposals (Schedule Lite), it is suggested to define what types of customer assets can be classified to be included in the CER. For example, a PV inverter or an EV charger that do not allow remote control should not be identified as CER.

QUESTION 3: **ENABLING A SECOND SETTLEMENT POINT AT A SINGLE CONNECTION POINT** **1. Do stakeholders agree the technical and market considerations outlined above are the key considerations we should address in relation to establishing a second settlement point, irrespective of the metering configuration options available and proposed for separating and measuring CER?** **2. Should a second settlement point at a single connection point be restricted to defined situations and conditions (e.g. EV charging)? What criteria and governance processes need to be**	• We agree with the technical and market considerations. • The CER should have minimum capability including, remote communication and remote controllability where applicable to meet relevant standards such as AS/NZS 4777.2 and IEEE 2030.5. • The alternative measuring device would need to provide accurate measurement data for consumption and generation, or, net energy flow in 5-minute intervals, as well as required measurements to satisfy MASS requirements for FCAS participation.

applied when allowing second settlement points at customer premises? **3. What would be the appropriate framework for approving and verifying alternative measuring devices permitted to be used at the second settlement point?** **4. What would the implementation costs be for creating second settlement points with associated metering configuration options?**	
QUESTION 4: **USING OTHER DEVICES FOR CER MEASUREMENT AND REWARD** **1. What changes to the rules, if any, should be assessed in relation to these non-market-related devices for CER products and services to consumers?**	• MASS requires the response of CER assets forming a VPP to be measured by an approved meter (e.g type 1-4 metering installation) which is approved by AEMO. • We would also suggest the AEMC investigates updating the MASS by allowing the integrated meters in CER assets to be used to measure FCAS responses. • In the case of battery storage systems, integrated metering is common and to be encouraged. This will help minimise costs to customers.
QUESTION 5: **ESTABLISHING TWO CONNECTION POINTS AT A SINGLE PREMISES** **1. Are there any changes we could make to the NER and NERR to assist in overcoming the current barriers to the second connection point?** **2. What issues need to be considered in evaluating whether there should be changes to the fixed network tariff for second connection points at the same premises? How (if at all) should this issue be addressed in the NER?**	• The application process by the DNSPs for establishing a new connection point needs to be clear, and the associated timeline should aim to be quick, preferably with a significant level of automation. This quick process is crucial for determining the financial model of installing CER at a site under a separate connection point. The DNSP's procedure should transparently outline the eligibility criteria governing the acceptance or rejection of applications for such additional connection points. • The concept of Dynamic Operating Envelopes holds the promise of addressing certain apprehensions of the DNSPs and could potentially lead to an increased rate of approvals for second connection points. • We believe that "applying none or a low proportion of the fixed charge to a second connection point at the same premises" will insulate one connection point/FRMP from cost-reflective network pricing while fully exposing the other connection point/ FRMP which results in creating an unlevel playing field.

	• The FRMP operating CER assets, free of fixed charges, can offer a lower cost service to the consumer while remaining financially viable. The legacy FRMP faces all network fixed charge costs while serving a reduced load volume (depending on the nature of the CER assets, e.g. EV).

QUESTION 6:
 	
AEMO'S SPECIFIC FTM2 FOR SMALL CUSTOMERS
 	
1. Do you agree with the Commission's view and its initial position to not progress further with AEMO's specific FTM2 for small customers?
	• We believe the reforms are best rolled out to large customers first, with small customers to follow once arrangements have demonstrated net benefits for large customers and implementation issues have been resolved.
	
	• We agree that there are challenges regarding implementing TM2 to small customers, but we believe that there are potential solutions for those challenges. Considering the rate of uptake of CER in residential segments, there is a huge potential in using residential CER.
	
	• We propose AEMC investigates the application of FTM2 for small customers in a trial before making a decision about progressing with AEMO's specific FTM2 for small customers.
	
	• For residential and small business customers, we support a level playing field that recognises the practicalities of meeting protections under the NECF:
	
	  • Adopting the subtractive metering model with primary and secondary FRMPs
	
	  • Primary FRMP bears NECF obligations (we would prefer a level playing field, but support this as a matter of practicality)
	
	  • Secondary settlement points that can only be established for controllable CER
	
	• Settlement points to be subject to a cost-reflective network tariff allocation.

QUESTION 7: **AEMO'S FTM2 PROPOSAL FOR LARGE CUSTOMERS** **1. Do you agree that introducing AEMO's FTM2 (or variations to it) for large customers would create an additional or better option for large customers to engage with multiple service providers?**	• Yes, we agree that introducing AEMO's FTM2 (or variations to it) for large customers would create an additional or better option for large customers to engage with multiple service providers.

QUESTION 8: **MULTIPLE FRMPS: EMBEDDED NETWORKS MODEL** **1. Other than metering and network connection costs, are there other reasons SGAs use the embedded network framework?** **2. Would the proposed changes to network tariffs in NSW and Tasmania drive SGAs in those states to adopt different models?** **3. Do stakeholders consider that the existing embedded network framework should continue to be used to facilitate flexible trading and market participation or should the Commission consider alternative models/framework?** **4. Are there any additional issues with the use of the embedded networks framework to facilitate flexible trading not already discussed above?**	• The embedded network allows centrally owned and operated CER assets and aggregation into a VPP across consumer sites (as opposed to consumer owned VPPs). • Embedded Network Frameworks allow institutional capital to invest in CER assets at scale, to the benefit of both participating consumers, including an increased number of vulnerable consumers or those who rent their property, and the NEM more generally. • Increasing the demand charge for embedded networks, as opposed to increasing daily fixed charge, will lead to more renewable energy resources (rooftop PV system) as well as storage systems to be installed in the embedded network. Increasing the daily fixed charge or introducing capacity-based service charge removes incentives for the embedded network to install CER resources to manage their consumption and peak demand. This will negatively impact the growth of SGA-type assets such as battery energy storage systems. • We see no reason to forbid creative application of the rules by individuals. As AEMO notes "Where an end user believes or determines that the deemed exemption category is applicable to it, there is no requirement to apply for an exemption or register with the AER and exemption is automatic." These rules reflect the view that individual customers are best placed to make choices about their consumption. We do not believe AEMO has made a convincing case that there is anything "manifestly unsuitable" arising from customers choosing to establish embedded networks. AEMO has not documented the number of such cases, or provided any data relating to consumer harm arising at these installations as a result of consumers self-selecting to be an embedded network. Nor is any data provided on increased operational complexity for AEMO or any other participant.
QUESTION 9: **MULTIPLE FRMPS: AEMO'S FTM2 PROPOSAL** **1. If the Commission introduced FTM2, how would (or should) it affect the existing arrangements that allow forms of flexible trading, such as SGA,**	• We see FTM2 as a form of settlements that occur in Embedded Networks. Energy Locals owns and operates embedded networks, and we use child meters to meter our DER assets on embedded network sites separately from occupants. This is an important element of our embedded network design and service delivery. We want to stress that we do not support limiting the ability of child meters to be used within embedded networks comprising multiple customers. • Introducing the FTM2 model has the potential to impact the primary energy service provider. However, ensuring a level playing field in terms of consumer protections and a cost reflective allocation of network

embedded networks, and wholesale demand response? **2. Would introducing AEMO's FTM2 model for multiple energy service providers significantly impact the business model or costs of the primary energy service provider?** **3. Would FTM2 encourage distributors to test and implement new tariffs (e.g. dynamic) for sizable and responsive loads more readily than they have to date?** **4. Would FTM2 affect the way in which energy service providers (such as aggregators) provide network services?** **5. Are there any costs or benefits that we have not considered in relation to AEMO's FTM2 proposal?**	charges mitigate 'hollowing out' in practice. As long as participants can compete on a level playing field, then any wins or losses, should reflect competitive market outcomes to the benefit of consumers. Our concerns relate solely to regulatory outcomes that favour one class of participant or service over others and lead to hollowing out. • Yes. DNSPs can design and implement CER specific tariffs. We agree with AEMO's position that DNSPs and AEMO are already considering what is essentially the same issue as the DOE design. • FTM2 is likely to positively affect the way the energy service providers provide network services. By separating CERs into a separate secondary connection point, the energy provider has better control over the energy and can provide more accurate visibility of its flexibility (as proposed in Schedule Lite).
QUESTION 10: **OPPORTUNITIES AND BENEFITS OF IMPROVING EXISTING ARRANGEMENTS** **1. Do stakeholders consider there are other matters that the Commission should consider in terms of the opportunities, benefits, and costs for improving existing arrangements for the measurement of street lighting and public furniture?**	• The measurement of street lighting and public furniture will more accurately reflect the energy use in each council and help in planning and resource allocation of councils to meet their environmental and net zero commitments.
QUESTION 11: **MARKET FUNCTIONS AND OBLIGATIONS - METERING ROLES •**	• We support the additional category of MP accreditation be established (Category 4T) • We support competitive arrangements for minor energy flows. We note that allowing DNSPs to act in the role of MC, MP and MDP may create an uneven playfield and reduce innovation in this space. • Yes, the existing competitive framework for metering parties should apply.

1. Should there be another level of accreditation for Meter Providers in the NER? **2. What are stakeholders' views on distributors performing the functions of the MC, MP and MDP for the street lighting and other street furniture they manage, if MEFM is introduced? •** **3. For street furniture not managed by distributors, should the existing competitive framework for metering parties apply if MEFM is introduced?**	
QUESTION 12: **TECHNICAL REQUIREMENTS** **1. Do stakeholders have views on the removal or amendment of minimum service specifications for minor energy flow meters?** **2. Do stakeholders have views on inspection and testing requirements for minor energy flow meters?**	• We support an exemption from requirements to meet the minimum services specification (MSS) for street lighting and public furniture. Some elements of MSS such as "remote disconnection service" and "remote reconnect service" are unlikely to be required in this application. • We support solutions to reduce the cost of inspection and testing by using remote inspection capabilities.
Additional topics	