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Australian Energy Market Commission

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AEMC Consultation Paper: Integrating price-responsive resources into the NEM

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Commission (AEMC) Consultation Paper: **Integrating price-responsive resources into the NEM**.

The CEC is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as a range of stakeholders in the National Electricity Market (NEM), to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

Consumer Energy Resources (CER) will play a major role in achieving Australia's decarbonisation ambitions, especially in moving towards our targets in the immediate future and during the current period where we work towards unlocking investment in large scale renewable projects. Predictions in the latest Integrated Systems Plan publication from the Australian Energy Market Operator (AEMO) forecast that by 2032, over half of the homes in the NEM are likely to have rooftop PV systems, rising to 65% with 69 GW capacity by 2050. This will make rooftop PV the largest source of electricity generation in the NEM. The integration and management of that level of distributed generation is forecast to require almost 30GW of distributed storage and flexible demand.

A key component of the effective integration of distributed energy in the Australian energy market is improving the quality of forecasting in both near term 'dispatch' and longer term 'planning' timeframes is critical to support the integration of renewable generation and efficient spot market outcomes. visibility of CER, and associated flexible demand. As such, the CEC is supportive of the creation of a framework that better informs modelling to support the integration of price-responsive resources into the NEM based on greater visibility and rewarding market participants for their participation. However, we need to ensure there is clearly defined and articulated net benefits for market participants and consumers. That is, consumer data collection should be strictly limited to that necessary to achieve pre-defined modelling performance objectives that deliver net benefits to market participants and consumers.

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One way of ensuring consumers benefit from the proposal is to link price responsive model to wider CER market and policy reform. For example, a policy whereby Small-Scale Renewable Energy Scheme (SRES) is extended to support uptake of home batteries and orchestration services but also simultaneously requires registration in a price responsive model.

There are additional benefits generated by linking a CER visibility model with broader market and policy reforms. Linking visibility participation to broader flexibility products and services that reward consumers with additional revenue streams for generating, storing and shifting demand, improves electricity grid resilience and lowers emissions. The consultation paper notes that AEMO state that duplicating 20% of the assumed orchestrated fleet by 2040 with utility scale assets will result in an additional capital spend of $1.8bn. Further, the South Australian Government home battery scheme was extremely successful in driving uptake of batteries by consumers. The Scheme achieved:

- one of the highest uptakes of residential batteries in the world - over 39,000 batteries totalling over 400 megawatt-hours; and
- more than 12,000 residential batteries enrolled in virtual power plants[1]

These are the type of market benefits an expanded SRES can accelerate and play a key role in meeting Australia's renewable and climate change targets.

As outlined in the Consultation Paper, VPPs currently have access to a variety of revenue streams, including contingency FCAS, wholesale market, and non-network services (noting these markets are still in their infancy and other market bodies and state jurisdictions are looking to provide better transparency, structure, and incentives for these markets to grow). However, they still do not have access to all revenue streams that utility scale assets have access to including regulation FCAS, energy market bidding and the new primary frequency response two-sided payments. The fact that AEMO are looking to open up access to these markets is a positive step.

The CEC believes Australia is in the growth phase of the CER market and based on the NERA international comparison work, any visibility model should focus primarily on continuing to encourage the uptake of CER. It is worth noting that VPPs and rewarding access to flexible energy to provide wider system support services will play a key role in reducing costs for the market and customers. As such, the CEC believes a voluntary visibility model is the appropriate starting position for the design, progressing to a dispatchability model once scale and maturity has been achieved.

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[1] Renewable Energy | SA Government Financing Authority (safa.sa.gov.au)

The CEC also notes the most critical and detailed work in the design is at the implementation level. Hence, we recommend the AEMC establish a technical working group (as proposed in the consultation paper) immediately, to ensure that solutions and implementation considerations are fully examined. We suggest the technical working group should be set up and run parallel with the AEMC's consideration of responses to the consultation paper and finalisation of the Rules change process.

In particular, the technical working group can assist in informing the Rules change process but also with commencing work with the visibility model design and implementation. The technical working group can assist with:

- Expert input, review and consideration of the proposed regulatory impact analysis
- Development of fit for purpose market interfaces. This would include looking at previous trials' market interfaces such as the registration, operational and telemetry API infrastructure AEMO developed for projects like the VPP Demonstration program. Noting that AEMO has decommissioned the VPP Demonstration program APIs, the technical working group can review whether there is merit in using the work to support the visibility model or there is a need to develop completely new APIs to support final design of the visibility model. The working group can also use the knowledge gained from other market CER trials and how they can assist in the design of fit for purpose market interfaces.
- Determine the right data set and determine standardisation of the relevant data sets. Appendix B outlines AEMO's view of the types of data sets they would require to operationalise their proposed model. The technical working group can scrutinise and determine whether this data set is appropriate.
- Determine what is being "scheduled". For example, is it controllable load, stored load or load shifting such as hot water, generation, bi-directional units, behavioural demand responses? How will the model treat passive load/ generation?
- Working with AEMO to establish a pre-production environment to test data and information sharing and to firm up an assurance regime based on lessons from pre-production.

Finally, the CEC supports a phased approach to developing the visibility model, whereby in the early stages the model is volunteer based, low compliance/enforcement, and low cost to enable the industry to grow. We would also encourage AEMO to explicitly set out the likely benefits of participation as this will provide some revenue certainty to market participants in assessing their participation. It can then ramp up to a more sophisticated model as flexible energy understanding, scale and firmness from CER grows.

Thank you for the opportunity to respond, we would be very happy to discuss these issues in further detail with AEMC and to facilitate engagement with CEC members as part of the rule change consultation process. If you would like to discuss any of the issues raised in this submission, please contact me at [redacted]

Kind regards

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