10 September 2024

Australian Energy Market Commission

Lodged online: aemc.gov.au

Dear Sir/Madam,

Response to Integrating Price Responsive Resources into the NEM – draft determination

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Integrating Price Responsive Resources into the NEM draft determination.

Origin is a large Australian integrated energy company with activities in energy retailing, power generation, natural gas production and LNG export. Origin also has recent experience in exploring new product offerings and has focused on areas such as solar and storage, connected homes, electric vehicles (EVs) and future fuels including hydrogen.

We have developed a proprietary Virtual Power Plant (VPP) platform to connect and use artificial intelligence to orchestrate distributed assets. These assets include hot water systems, solar, batteries, EVs and various industrial devices, which are aggregated, controlled, and dispatched in response to market and portfolio positions, creating value for both Origin and customers through a lower cost of energy. Origin views the integration of these devices as a key long-term reform.

We appreciate the significant effort the AEMC has made to understand the complex issues involved in this rule change proposal. This has included numerous technical working groups and one-on-one meetings with multiple stakeholders.

Overall, we believe that the draft determination represents a significant improvement over the original rule change proposal but that further work is required. Our key points on the three major aspects of the draft determination are as follows.

Monitoring and reporting

- **New AEMO and AER obligations** - We support the proposed monitoring and reporting arrangements for AEMO and AER in preference to the original 'visibility mode'. We agree with the AEMC that it is important to keep the costs of any new requirements low so as not to discourage the deployment of new CER products and services.

- **Information gathering powers** – We understand that the rule change will not be imposing any additional reporting requirements on participants, at least at this stage. If AEMO does require further information at a future point, we would prefer an approach which seeks to build on existing information in an incremental manner. It is important the costs of any reporting requirements are efficient, and do not stifle deployment of CER more generally.

Dispatch mode

- **General** – As stated in our submission to the discussion paper, we believe that the proposed dispatch mode is not required and will impose additional costs on the market which greatly outweigh any perceived benefits. Through the course of the review, including participation in numerous technical working groups, our view has not changed. The proposed dispatch model is highly complex and does not suit the vast majority of CER assets.

- **Features of dispatch** – Generally, this still appears quite onerous. It includes most of the features of the existing central dispatch process with the added complexity of aggregating and managing a portfolio of numerous small CER assets. We understand that a balance will need to be struck between encouraging participation and ensuring the reliable operation of the market. We provide comments on some aspects of dispatch further below, including the minimum size of participation, zones and conformance obligations.

- **Support voluntary nature of rule change** – If the AEMC makes a rule, it is important that the proposed dispatch mode is voluntary. This allows those aggregators and retailers that want to try the new model an opportunity but does not impose costs on other parties who may choose another way to offer products to their customers.

- **Implementation timeframes** – We understand AEMO is considering delaying the implementation of the dispatch mode until May 2027. We consider this a practical approach.

Incentives

- **Preferred incentive mechanism** - Support a relatively simple incentive mechanism and would prefer Commonwealth Government funding, possibly through ARENA grants, as our first preference.

- **Further work required** - This part of the draft determination contains little detail and requires further work before progressing to a final determination, if the AEMC decides to make a rule. We would encourage the AEMC to work with the Commonwealth Government and ARENA to expedite a practical incentive mechanism and consult on this further with stakeholders.

These issues are discussed further below.

Monitoring and reporting

VPPs are growing across the market and we understand why AEMO is seeking better information on the various distributed assets that may be connected and orchestrated as part of this. We are supportive of providing increased information to help AEMO manage the market more efficiently. This should be undertaken in a way which continues to allow the emerging market for VPPs in Australia to develop. Importantly, it should allow the new products and services that customers want to evolve, without significant additional costs or restrictions. These new products and services are in many cases reducing costs for the market and customers, and it would be counterintuitive to regulate them in a costly manner which may stifle future development. Further, many of these products have additional benefits such as shifting demand to benefit the management of the electricity grid or reducing emissions.

We support the proposed new monitoring and reporting arrangements for AEMO and AER in preference to the original 'visibility mode'. We agree with the AEMC that it is important to keep the costs of any new requirements low so as not to discourage the deployment of new CER products and services.

How AEMO go about satisfying these new requirements is another question. We understand that the rule change will not be imposing new requirements on market participants to provide information, at this stage. We note also that the draft determination refers to NER Rules 3.7D and 3.7E which relate to the demand side information portal and DER register, respectively. If AEMO does require further information at a future point (such as by changes to guidelines relating to these Rules), we would prefer an approach which seeks to build on existing information in an incremental manner. It is important the costs of any reporting requirements are efficient, and do not stifle deployment of CER more generally.

We note that when AEMO develops guidelines under Rule 3.7D it must '*have regard to the reasonable costs of efficient compliance by Registered Participants with the guidelines compared to the likely benefits from the use of demand side participation information provided under this Rule 3.7D in forecasting load for the purpose of the exercise of its functions under the Rules*…'[1]

Regarding the proposed retailer-based model, which was developed by an independent consultant, we agree with the AEMC that such a model is far too complex and difficult to implement. Further, we believe that AEMO is best placed to manage the market and has the best access to information overall. It is logical that it has the obligation to report on the market impacts of increasing unscheduled price responsive resources.

Origin would be pleased to work with the AEMC and AEMO to better understand what information could be provided to AEMO in an efficient manner which assists with the operation of the market.

Dispatch mode

As stated above, we remain unconvinced that the new dispatch mode is required. Whilst we understand the AEMC's desire to future proof the dispatch process, we are concerned that a significant amount of time and effort is being consumed to develop a new rule which may only be used by a small sub-set of the market. This seems to be an inefficient solution.

The draft determination contains a detailed list of design criteria that would form the dispatch process. In summary, most of these are the same as the current rules for central dispatch (based on the rules for bidirectional units). There are some new aspects of flexibility and there are also some new features required to aggregate and manage a portfolio of multiple assets. Overall, this still appears to a be a very onerous set of requirements.

We note that most of these features are proposed to be contained in AEMO guidelines. Further, the AEMC has proposed an overarching principle which requires AEMO to balance the cost and complexity of its technical requirements with encouraging participation in the new dispatch mode. We agree with this principle but note that it may be difficult to achieve in practice.

Some of the design features containing in AEMO guidelines will be particularly important to promoting participation. These include:

- *Minimum size* – the draft determination leaves the minimum size of a Voluntary Scheduled Resource (VSR) DUID to the discretion of AEMO guidelines. Currently, the minimum size under the bi-directional rules is 5MW. We suggest that this may be too high for CER assets and that

[1] NER Rule 3.7D(f)(1).

consideration could be given to a lower number. However, we understand that AEMO will need to balance the costs of implementation of a smaller threshold and that small aggregations may not be significant to improving the efficiency of market operations.

- *Zones* – the size of zones will be an important feature contributing to participation. In general, the larger the zone the more likely aggregators will be able to meet the minimum size of participation. The draft determination states that zones will be contained in AEMO guidelines and are initially expected to follow zonal forecasting rules in the Wholesale Demand Response Mechanism which has one zone per NEM state and three for Queensland. We would encourage AEMO to keep these zones broad for as long as possible. One suggestion is that the AEMC could add into the rule that zones must stay at this size for a minimum period, say the first three years of the new dispatch mode.

  The size of zones may also interact with pricing in the future. We understand that the intention is that all participating assets in the same state will receive the same regional wholesale price, irrespective of whether they are in a different zone within that state.

- *Network limits* – the draft determination notes that NEMDE does not currently account for any network limits. It also notes that networks are starting to introduce early forms of dynamic limits and that these may grow in significance over time. Currently, the rules will require participants to meet any obligations to comply with network limits. But this may become difficult over time for aggregators with larger portfolios and will require information to be provided quickly and ideally for this to be automated in some way. We suggest that further work needs to be undertaken about how networks can communicate changes to their limits in real time.

- *Conformance obligations* – balancing the accuracy of conformance with dispatch instructions and participation may be difficult to achieve. Generally, as a current market participant, we would err on the side of supporting accuracy. Further, if AEMO is proposing the dispatch mode to increase the accuracy of its short-term forecasting and longer-term planning, then it would make sense to encourage accuracy of conformance.

Overall, if the AEMC makes a rule, it is important that the proposed dispatch mode is voluntary. This allows those aggregators and retailers that want to try the new model an opportunity but does not impose costs on other parties who may choose another way to offer products to their customers. We believe that impacts on customers should be a key factor when considering this rule change. If additional costs are imposed on participants which increases costs to customers or results in some CER products not being offered, then the rule change will have a regressive impact.

Finally, we note that AEMO has indicated it is considering staging the implementation of the proposed dispatch mode. This could include a phased approach that starts in November 2026 and continues until May 2027. Given the complexity of the proposed rule change and the various AEMO guidelines that will need to be developed, we would support this as a practical approach.

Incentives

The draft determination presents two main options for an incentive mechanism. The first preference involves Commonwealth Government funding, possibly through ARENA. The fall-back option is an AEMO tender process.

We support a relatively simple incentive mechanism and would prefer Commonwealth Government funding through ARENA grants as our first preference. Such a model could be tailored to offset some of the establishment costs for those participants that wish to try the new dispatch model. We do not support funding through the Capacity Investment Scheme. This does not appear to be an appropriate mechanism and risks making the application process far too complicated for what might only be relatively small, aggregated resources to start with (around 5MW).

We note that this part of the draft determination contains very little detail and requires significant work before progressing to a final determination, if the AEMC decides to make the rule. We would encourage the AEMC to work with the Commonwealth Government and ARENA to expedite a practical incentive mechanism.

If you wish to discuss any aspect of this submission further, please contact Matthew Kaspura at matthew.kaspura@originenergy.com.au.

Yours sincerely

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