



Monday, 19 August 2024

Lodged via email: nemreform@aemo.com.au

Clean Energy Council Submission to the Australian Energy Market Operator's Integrating price responsive resources into the NEM - Draft High Level Implementation Assessment

Dear Australian Energy Market Operator,

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Operator (AEMO) on the draft High Level Implementation Assessment (HLIA) for the Integrating Price Responsive Resources (IPRR) into the National Electricity Market Rule Change.

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.

The CEC recently released our own Consumer Energy Resources Roadmap "Powering Homes, Empowering People"¹, which found that meeting the AEMO ISP CER projections would deliver \$22bn in savings for Australian taxpayers; create 18,200 jobs; and result in up to 3.8m more homes and businesses with orchestrated batteries.

We recognise that effective integration of CER is reliant on improving the quality of forecasting in both near term 'dispatch' and longer term 'planning'. This effective integration is a necessary precursor to

¹ <https://assets.cleanenergycouncil.org.au/documents/resources/reports/Powering-Homes-Empowering-People-CER-Roadmap.pdf>

achieving the benefits projected by the CEC and others, and encouraging more orchestrated assets and virtual power plants (VPPs) into the market.

The CEC also appreciates the incredible amount of design and system build work that AEMO will need to complete in order to effectively implement this Rule Change. As such, we want it to be as successful as possible, with a number of market participants signing up as voluntary scheduled resource providers (VSRPs) and a number of customers enabling their assets as voluntary scheduled resources (VSRs). The AEMO process design will be critical in achieving a successful Rule Change, and the CEC appreciates the opportunity to provide feedback early in the process on several of the proposed design features.

The CEC feedback is based on the following principles which we think is necessary for successful implementation of the IPRR Rule Change:

- Customer choice. This is a fundamental principle and clearly embedded in both the Rule Change and the AEMO HLIA. The current approach proposed by AEMO and the AEMC clearly recognises that not all customers will be interested in having their resources scheduled by a market participant.
- Simple to follow processes and low administrative complexity. While it will be critical for AEMO to confirm that individual CER devices and aggregated VSR portfolios meet the relevant technical requirements considered necessary for effective dispatch, it will also be critical to reduce the administrative complexity where possible.
- Fit for purpose processes that recognise the unique characteristics of CER compared with single, utility scale, scheduled assets.

The CEC looks forward to continuing to engage with both the AEMC and AEMO on the IPRR Rule Change and associated implementation material that will need to be developed, and we are happy to facilitate further conversation between AEMO and CEC members on any of the specific topics discussed.

If you have any queries or would like to discuss the submission in more detail, please contact Emma Fagan at efagan@cleanenergycouncil.org.au.

Kind regards,

Emma Fagan
Acting Director of Distributed Energy
Clean Energy Council

Feedback on Specific Elements of the AEMO HLIA

Definition of a zone

The definition of a zone is likely to be one of the more critical elements of the IPRR design and implementation. The CEC encourages AEMO to consider the largest possible region that would be acceptable to be considered as a zone. The current state based DUID registration approach for VPPs has worked effectively and should be considered by AEMO as the starting point. Limiting zones geographically will create the following risks:

- If the zones are too geographically limited, it will make it more challenging to meet the proposed 5MW minimum bid size for scheduled dispatch.
 - Even with state-based boundaries there are only a handful of VPPs currently registered with AEMO for FCAS that have more than 5MW within their portfolio – the majority of these being Demand Response Service Providers (DRSPs) who would be ineligible under the current interpretation of the proposed Rule.
 - Even if AEMO were to start with a minimum 1MW bid threshold for portfolio registration (rather than 5MW), this will still require 100 – 200+ households within a zone registering their 5 – 10kW CER assets with a market participant. Accounting for market competition, and a percentage of customer who will be uninterested in having their assets scheduled, smaller zones will limit the success of the market change.
- It will make the registration process and management of DUIDs more administratively burdensome, where market participants will need to register and manage potentially multiple DUIDs and portfolios within a single state.
- Managing multiple DUIDs and portfolios within a single state will also add cost. Both directly in initial registration, and adding new capacity, but also internal business costs in managing multiple portfolios.
- It will also make tendering more complex if market participants are required to submit tenders for each zone they are operational in. AEMO has noted some alternative incentive structures (discussed in more detail below) which would also be more complex if there was a granular zone breakdown. The CIS tenders, for instance, have been designed around state auctions. If this was to move to zonal auctions for VSRPs this would be a departure.

There are several other key points and questions that AEMO and the AEMC should consider as part of the implementation process:

- Interaction of zones with dynamic export limits. This will be critical to the success of the “Integrating Price Responsive Assets” Rule Change. There needs to be alignment and consistency between flexible export platforms currently managed by distribution network service providers (DNSPs) and the AEMO integration into dispatch.

- If smaller zones are designed, does that also mean there may be zonal pricing, rather than a standard state wholesale energy market price. If the latter is being considered we would suggest that this should be part of a broader review.

Dispatch

The early design details for dispatch proposed by AEMO are clear and will align VSRs with the rest of the market. There are clear benefits in being able to access frequency performance payments (FPPs) and participate in the regulation FCAS market.

One consideration for AEMO is whether there will be non-compliance penalties for overdelivering or whether any excess will just be considered to be outside of the bid and settlement quantity. It is possible that in the initial stages of dispatch, market participants may bid conservatively in order to avoid under-delivery penalties.

VSR participation features

The CEC appreciates the work done by AEMO in considering a range of different options for customers to pause, or permanently withdraw their asset from a VSRP portfolio. As noted, customer choice is critical, and there are a range of reasons a customer may wish to withdraw their asset from being scheduled at any time. This includes changing retailers, moving house, or simply changing their mind based on the value of using a device purely for self-consumption or unscheduled reasons being seen as higher than the value associated with the device being scheduled.

The options provided by AEMO appear to give customers the choice of pausing participation for a short window, an extended window, or withdrawing completely. One concern the CEC has is the wording included by AEMO in the HLIA: “the hibernation/ deactivation status must apply to every qualifying resource aggregated in the VSR”.

Requiring a VSRP to apply deactivation or hibernation status to every CER resource within a portfolio may create in less flexibility than allowing market participants to deactivate or hibernate individual CER within a VSR.

There may be some instances where it is simple for a market participant to hibernate an entire portfolio (i.e. large commercial assets). However, market participants may also want to give customers flexibility in opting in or out of a VPP. The current AEMO wording does not seem to enable that. As an alternative, the CEC would suggest that VSRPs are given full ability within the portfolio management system to deactivate or hibernate individual CER based on customer requests. This should only require AEMO approval if there is an impact on the total registered MW quantity.

We would also suggest the following to streamline the process and remove administrative burden for VSRPs:

- Where a customer churns to another market participant, their NMI should be automatically deregistered and removed from their previous market participants VSR portfolio.

- The market process for adding new NMIs and CER into VSRP portfolios should be simple and streamlined. AEMO should consider:
 - Whether AEMO approval is needed for all new CER added to a portfolio or in limited circumstances only (i.e. if a new technology type needs to be approved).
 - Whether AEMO approvals for deregistration can be avoided, with VSRPs managing deregistration based on customer preference without AEMO approval.

AEMO notes in Table 14 that an “Industry Test Strategy” will be set up. As a priority AEMO should work with test participants to ensure that VSR portfolios can be updated simply in a matter of minutes, and with limited AEMO interventions and approvals unless absolutely necessary. The difference between registration of new CER into a VSR taking minutes versus taking weeks or months, will significantly impact the success of the market change.

Other comments on the design principles proposed by AEMO:

- Frequency performance payments – the CEC recognises that a great deal of work has been done on designing this methodology over the last 24 months. It should be reviewed to ensure it’s fit for purpose for aggregated CER.
- RRO – pending the outcome of the current RRO rule change to exclude scheduled BDUs from RRO liability, AEMO and the AEMC may wish to consider whether that Rule Change would have any application on VSRs.
- Size of bids – current 1MW bid requirements in the Rules could be reviewed to smaller bid sizes to encourage greater participation.
- The AEMO portfolio management system will need to be able to hold potentially thousands of NMIs per DUID and should not have a hard cap in order to enable this.

Incentive scheme design

The design of the incentive scheme associated with participation will impact on the ultimate success of the market change. The CEC is broadly supportive of the approach proposed by AEMO in the HLIA, and of exploring alternative incentive approaches, with the following comments:

- As noted above, the success of the tender scheme will be closely linked to the definition of a zone. Larger zones will increase the likelihood of tender participation and success. If zones are narrowly defined, then the benefits of participating in a tender process will decline (i.e. if a market participant views the max capacity they will be able to aggregate within a zone as being 1 – 2MW due to geographical restrictions, this will make the effort versus reward of tender participation far less attractive than if a market participant was able to tender for 20 – 30MW of capacity).

- The CEC does not believe that the tender process necessarily has to be time limited. AEMO may want to consider starting with a time-limited tender process, before moving to an enduring scheme (such as the CIS or a CIS-like mechanism).
- If the CIS mechanism is used then it should be carved out as a separate CIS process. There is more uncertainty in access to revenues from VPPs – particularly in respect of regulation FCAS and FPP with VPPs historically excluded from these revenues. This means the floor and ceiling pricing will not directly correlate to utility scale dispatchable capacity bids (at least in the short term). While the CIS needs to focus on best value capacity, it will also be important that new technology types do not fail at the first pass when compared with more established technologies.
- Including in the CIS would provide increased incentive for creating fit for purpose access to both regulation FCAS and frequency performance payments, as this will ultimately reduce the likelihood of the floor price being breached.

If the current AEMO run incentive structure remains the preferred mechanism, then the CEC provides the following comments on the features included in Table 2 of the HLIA.

- Timing: Two tenders over five years is insufficient. Running tenders at least be yearly will incentivise the maximum VSR participation.

AEMO also notes that they are proposing to bring the first tenders forward to Q2 2026. The CEC supports bringing timelines forward but would encourage AEMO to consider whether these could be even more aggressive.

Monitoring and reporting framework

The CEC is supportive of the approach proposed by the AEMC and AEMO on prioritising a new monitoring and reporting framework rather than a “visibility market model”. However, at this stage it is not clear how these goals will be achieved. The CEC is happy to work with AEMO and the AEMC on potential mechanisms that might improve visibility. Any changes to the DER Register or introduction of new data collection mechanisms should be considered as a separate process.

This should also be used to inform whether the incentive structures and the accessibility of the VSR model are functioning, in that it will provide good insights on the proportionality of unscheduled CER choosing to remain unscheduled² rather than participating in a VSR.

² The CEC recognises that there are also myriad customer reasons that will also impact this proportionality, including the attractiveness of offers put out by market participants.