Integrating Price Responsive Resources – Technical Working Group Meeting 5

17 April 2024, 2pm

The fifth working group meeting was held online on 17 April 2024. The attendees of the meeting are listed below.

Member	Organisation
Alex Price	Powerlink Queensland
Benjamin Pryor	Shell Energy
Christina Green	Energex
Claire Richards	Enel X
Con Hristodoulidis	Clean Energy Council
Constantine Noutso	Red Energy
Courtney Markham	Origin
Craig Memery	Public Interest Advocacy Centre
Emily Gadaleta	Tesla
Glen Summers	AGL
Greg Williams	Australian Renewable Energy Agency
Mark Majzoub	Aggregation Exchange
Sam Lynch	KrakenFlex
Sanket Wankhede	Energy Australia
Wei Lim	CS Energy
Tahlia Hartmann, Andrei Gretchko	AER
Mohsen Khorasanv, Rosie Elkins, Nicole Dodd	AEMO

The AEMC's project team attended and is listed below.

Name	Position
Ben Davis	Project Sponsor
Rachel Thomas	Project Leader/Incentives Lead
Harrison Gibbs	Dispatch Lead
Sam Markham	Visibility Lead
Lily Mitchell	Project Lawyer
Ben Bronneberg	Project Lawyer
Jacqueline Price	Graduate

The project sponsor acknowledged and showed respect for the traditional custodians of the many different lands across Australia on which we all live and work. We pay respect to all Elders past and present and the continuing connection of Aboriginal and Torres Strait Islander peoples to Country. The AEMC office is located on the land traditionally owned by the Gadigal people of the Eora nation.

At the start of the meeting, the 'competition principles' from AEMC's competition protocol were read out.

It was noted that the views expressed by the AEMC project team are not the Commission's views, but preliminary staff-level views.

The project lead thanked the TWG for their understanding of the cancellation of the TWG scheduled for 10 April on visibility. There were two areas the AEMC project team identified that we are investigating in terms of visibility:

1. If there could be a staging process where AEMO can monitor the significance of demand forecast errors.
2. Whether and how AEMO (rather than FRMPs) could forecast price-elastic demand for price-responsive resources that are not capable of, or efficient to, participate in dispatch mode.

The AEMC project team will use the TWG meeting scheduled 7 May to discuss visibility with TWG members.

The following items were discussed at the meeting:

Context

- The AEMC project team:
    - provided a recap of the problem and rule change to date.
    - explained that dispatch mode is one of the mechanisms proposed by AEMO to incorporate price-responsive resources (PRR) into the National Electricity Market (NEM).
    - explained the aim is to encourage PRR to participate in the central dispatch process. This would ensure that participants and their resources are treated similarly to other scheduled and semi-scheduled resources, providing access to full value streams (such as reg FCAS) as outlined in the incentive TWG.
- It was noted that not all current non-scheduled assets may be able to participate in dispatch mode. It is focused on controllable price-responsive resources, such as:
    - VPP operators (retailers) who have contracted with households to control their batteries to manage spot price exposure
    - Small generator aggregators
    - Large controllable price-responsive loads

Recap of previous TWG on dispatch

- The AEMC project team noted TWG members did not highlight any material issues with the proposed design of dispatch mode, but highlighted the:
    - Complexity of controlling an aggregated portfolio that may contain controllable and uncontrollable resources behind a single connection point.
    - Complexity and timing of other reforms, such as network interactions (DOEs).
- The TWG did not identify any issues with AEMC's assessment of what details should be in the rules or guidelines, but highlighted that there should be a clear process of updating the guidelines, including at the request of participants.

Interactions with the CER benefits rule change

- The AEMC project team outlined interactions between the AEMC's draft determination for unlocking CER benefits (published on 29 February 2024) and the IPRR rule change. Highlighting the draft determinations decision to enable a customer's flexible CER can be separately metered from the rest of the household's inflexible load.

- Utilising a second settlement point to split out the price-responsive resources from passive or uncontrollable resources could reduce complexity and make it easier to participate in dispatch mode.
- The AEMC project team emphasised that this would be an option available to dispatch participants, pending a final rule being made and second settlement points being implemented. Participants may instead choose to participate at the primary connection point.
- The TWG raised the scenario where a household has uncontrolled solar and a battery system that is doing solar self-consumption to make site power zero.
- The AEMC project team explained that under the CER benefits draft, there is still the option to charge the battery from the customer's solar that is not going through the secondary settlement point but remains behind the meter.
- The TWG asked whether the rebidding rules and good faith provisions that apply to scheduled generators are fit for purpose for this rule change.
    - The AEMC project team explained that initial thinking is that they are fit for purpose but welcomed further discussion if TWG members could identify any issues with the current rules.

Flexible arrangements to assist participation

- The AEMC project team opened discussion on two options (stepping stone and opt-in/opt-out) that were outlined in the rule change request to better facilitate participation in dispatch mode.
- It was noted that the options would not typically be outlined in the rules or only outlined at a high level, being left to AEMO's discretion to design, consult, and implement.
- The AEMC project team outlined that given the scope of changes being investigated, outlining these requirements in the rules may assist both AEMO and participants. At this stage, the AEMC is investigating the merits of allowing or requiring such additional flexibility for participants.

<u>Stepping Stone</u>

- The stepping stone process would assist participants in moving from the status quo to eventually joining dispatch mode, by giving participants an opportunity to test and grow their operational capability in a low-risk environment.
- The TWG raised a number of questions and comments regarding this process:
    - Whether IPRR participants can do their own off-market 'ghost' bidding to get used to submitting bids before going on-market.
    - How this process will interact with the existing rules framework. i.e., do participants need to abide by existing compliance arrangements to make bids with AEMO.
    - Whether this process mirrors the process for scheduled generation to come on-market i.e. is the stepping stone process similar to the commissioning phase for generators to connect to the NEM.
    - How the TWG, AEMC project team, and AEMO define 'stepping stone'.

Opt-in/opt-out and hibernation processes

- The proposed inclusion of an opt-out and hibernation process aims to recognise that participants may only have the operational capabilities to participate in dispatch mode over certain time periods.
- Including a potential opt-out process would allow participants to remove themselves from dispatch obligations within operational timeframes (seven-day period, aligned with ST PASA timeframes).
- The proposed self-hibernation process would enable dispatch participants to opt-out beyond operational timeframes.
- The TWG raised several questions regarding this process:
    - If a participant does not bid, are they still subject to the bidding obligations in the rules? If they are not, what is the purpose of the opt-out process?
        - The AEMC project team explained that while opted-out, an LSU would not have to follow dispatch instructions. However, it is currently undecided whether a light scheduling unit (LSU) would still be required to submit bids.
    - Could opt-out be part of the stepping stone?
        - The AEMC project team explained that it could be, but this specific process is trying to provide flexibility to the participant. The final design of both processes and whether they would be part of each other would be left to AEMO.
    - Does opting-out require formal correspondence to AEMO?
        - AEMO clarified that formal notification would be required to opt-in and opt-out.
    - How does telemetry interact with the opt-out/in process?
        - While opted-out, telemetry would keep operating in the background. The specifics of what is required would be defined during consultation following the rule change.

Directions, state of charge information & primary frequency response

- The AEMC project team explained they have started mapping out specific rule requirements which may apply to dispatch mode participants. The following requirements were tested with the TWG.

Directions

- The rule change request proposed that dispatch LSUs will be considered ‘scheduled resources’ unless an exception is appropriate. This means they will be subject to AEMO-issued directions.
- The following discussion points were raised by the TWG:
    - The possibility of a threshold measuring the size of the capacity of the aggregated load or resource to determine whether a direction is needed.
    - Potential asymmetry in the distribution of costs and benefits between the customer and retailer – e.g., where there is compensation paid, the aggregator may keep most of it. However, where there is a cost, it is passed onto the consumer.

Enhancing reserve information

- The AEMC project team outlined this rule change's interaction with AEMC's recent decision on enhancing reserve information. This rule change requires the publication of information on energy availability in the operational timeframe, including state of charge, daily energy constraints, maximum storage capacity.
- The initial view of the AEMC project team is that dispatch participants would be required to provide state of charge information under this rule. The AEMC considered this is appropriate given that this information is already required from dispatch participants, and publishing the information aligns dispatch LSUs with scheduled bi-directional units.
- The following discussion points were raised by the TWG:
    - There are challenges for LSUs to measure the state of charge and storage in a battery which may result in the information not delivering its intended purpose. If the AEMC is extending this obligation to dispatch participants it should clearly outline the benefit to the market from receiving this information.
    - Whether the data captured through enhancing reserve information could be accurately used for validation processes.

Mandatory primary frequency response & Frequency performance payments

- The AEMC project team outlined the application of Commission recent decisions for 'Clarifying mandatory primary frequency response obligations for bidirectional plants' and 'Primary frequency response incentive arrangements' rule changes to these resources. That is, our initial views are that dispatch participants should not be subject to primary frequency response obligations but should be eligible for frequency performance payments (FPP).
- A brief discussion was held on potential revenue streams for LSUs.
    - The AEMC project team explained in dispatch, an LSU would be classified as an eligible unit. The LSU would then be eligible to receive frequency performance payments if their deviations from their dispatch trajectory positively help the system.

Distribution network limits

- The AEMC project team outlined the potential impact of flexible export limits (FELs) on dispatch mode. It was explained that the rule change request proposed that FELs would not be integrated into the market scheduling process for dispatch LSUs. In other words, participants, rather than NEMDE, would be responsible for managing any applicable distribution constraints.
- The TWG raised the benefit of streamlining the design of FELs into the dispatch model design.
    - The AEMC project team noted that as FELs are still being developed and designed by DNSPs, having the obligation of including FELs within the dispatch model design would likely delay the implementation of this mechanism.
- The TWG questioned customer churn and the portfolio management process.

- The AEMC project team stated further discussion on this will be taken offline. AEMO noted that page 93 of the rule change request has information on how they envision the portfolio management framework to look.

Next steps

- The AEMC project team thanked TWG members for their time. It was noted that this was the final TWG on dispatch mode before the draft determination. The next TWG will be held on 7 May at 2pm and the focus will be visibility.
- The AEMC project team will continue to organise individual meetings with TWG members who have further insights and thoughts on the topics discussed.