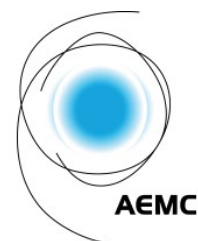


# Integrating Price Responsive Resources – Technical Working Group Meeting 4



**12 March 2024, 10:00am**

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The fourth working group meeting was held online on 12 March 2024. The attendees of the meeting are listed below.

Member	Organisation
Anna Bruce & Dani Alexander	UNSW
Ben Wilson	Simply Energy and ENGIE
Benjamin Pryor	Shell Energy
Candice Hincksman	Ergon
Claire Richards	Enel X
Con Hristodoulidis	Clean Energy Council
Constatine Noutso	Red Energy
Craig Memery (in-part)	Public Interest Advocacy Centre
Glen Summers	AGL
Mark Majzoub	Aggregation Exchange
Peter McCarthy	Origin
Sam Lynch	KrakenFlex
Sanket Wankhede	Energy Australia
Wei Lim	CS Energy
Mohsen Khorasanv, Ana Garcia Castro, 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
Craig Oakeshott	Market Expert
Lily Mitchell	Project Lawyer
Ben Bronneberg	Project Lawyer
Jacqueline Price	Graduate
Dave Smith	Consultant (Creative Energy Consulting)
Anthony Di Gregorio	Lawyer (King & Wood Mallesons)

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.

The following items were discussed at the meeting:

## Context

- The AEMC project team provided a recap of the problem and rule change to date.
- The AEMC project team outlined the size-of-the-prize modelling conducted by IES and the benefits associated with integrating Price Responsive Resources (PRR) into the National Electricity Market (NEM). The five identified benefits are:
  1. FCAS costs – successful participation will reduce FCAS requirements and costs.
  2. Emissions – successful participation reduces emissions because it reduces dispatched generation at times of high price/demand which tends to be high-cost peaking gas generation.
  3. Generation costs – successful participation reduces dispatched generation.
  4. RERT – successful participation reduces the need for RERT because it provides greater visibility to AEMO of responses to high prices.
  5. Spot prices and generation investment – incorporating price-responsive demand into dispatch decreases spot prices (on average).
- The AEMC project team noted that these benefits do not go to the participants that brought about the benefit.
- The TWG asked whether these benefits come from the general integration of CER into the NEM or if they come directly from the proposed visibility and dispatch mode.
  - The AEMC project team clarified that these benefits came from IES modelling for this reform, not general integration of CER.
- The AEMC project team outlined the potential costs/disadvantages of participating in the proposed new modes. The AEMC project team asked the TWG for feedback on these. The TWG identified these further potential costs:
  - Extra data holding requirements for dispatch going to AEMO.
  - Customer-related education pieces and internal resources e.g., a participant's trading team may need training on how CER is treated in the market.
  - Compliance costs associated with dispatch – having a large number of devices will mean there's an increased number of data points and information to sift through.

## Incentive design objective and principles

- The AEMC project team outlined our initial views on our incentive design objective and proposed principles. The TWG was asked to suggest any additional principles or propose changes to the objective.
- The TWG broadly agreed with the design objective and principles.
- Comments were made regarding the complexity of designing incentives.

## Incentives and their materiality

The AEMC project team asked TWG members to suggest any additional incentives for visibility and dispatch mode, beyond what was proposed by the team. Following this, TWG members were asked to vote on their perceived view of the materiality of the potential incentives for visibility and dispatch mode.

These are the results of visibility mode incentives:

Incentive areas (number of votes)								
	Amend FPP arrangement	New payment – refund costs to participate	New payment – multiple of FPP or other	Trial funding	Eligibility in government schemes	Reduced RERT cost recovery	Tender process for providing visibility where/when it is most valuable	Eligibility into distribution network schemes
Highly material	0	4	2	0	2	0	1	1
Potentially material	2	2	3	4	4	3	4	6
Not material	2	1	1	3	0	3	0	1
Unsure	2	0	2	1	0	1	2	0

These are the results of dispatch mode incentives:

Incentive areas (number of votes)											
	Automatic FPP	Co-optimisation of energy and FCAS	Priority access at network level	Access to regulation FCAS	Eligible for govt. schemes for dispatchable capacity	Trial funding or eligibility in government schemes	Reduced RERT	Refund costs	Remove requirements associated with being scheduled	Consideration of fees, processes, registration requirements	Eligibility into distribution network schemes
Highly material	0	3	2	5	4	2	1	4	3	2	3
Potentially material	2	4	4	2	3	5	3	4	4	6	5
Not material	4	1	1	1	0	2	3	1	0	1	0
Unsure	3	1	2	1	2	0	1	0	2	0	1

### Frequency Performance Payment

- Dave Smith (Creative Energy Consulting) explained that the Frequency Performance Payment (FPP) rule change is an existing mechanism that allocates FCAS costs between generators. The alternative visibility mode uses this existing mechanism to allocate costs between retailers.
- Dave Smith explained the incentive with this model is reducing FPP charges. Where a retailer does not put in a quasi-bid and there is a significant price response, the participant would likely have high FPP charges. However, through this mechanism, if a retailer bids and it improves accuracy, they can reduce their forecast errors and FPP charges.
- Dave Smith provided a recap of the final two processes of the alternative visibility model. The four main processes are: (1) Retailers estimate Demand Response (DR), (2) DR Integrated into dispatch, (3) Retailer-level Demand Forecasting, (4) Modified FPP Algebra. (1) & (2) were discussed during the second TWG on 27 February 2024.

#### *(3) Retailer-level demand forecasting & (4) Modified FPP Algebra*

- Retailer-level demand forecasting has a number of elements:
  - Generating five-minute-ahead forecasts of base demand for each retailer
  - Forecasts being used only for settlement, not operationally

- Being undertaken by AEMO, *not* retailers
- Being carried out *after* real-time, once retailer actual demands are available
- Mimicking a real-time forecasting process
- Making use of AEMO's existing regional demand forecasting models
- Dave Smith explained that quasi-bids can be used to correct price-responsiveness. Part of what makes forecasting difficult is knowing when price response will happen. However, based on the information from quasi-bids, AEMO can estimate demand response of the previous dispatch interval and correct for that. This can smooth the demand curve to make it easier to forecast.
- A concern was raised by the TWG regarding the significance of getting forecasts wrong, considering that in the future approximately 40% of generation from the market will be coming from unscheduled resources.
  - The AEMC project team noted that the model being presented is the starting point and the foundational design. There will likely be future discussions around the regulatory design of this model e.g., testing, entry requirements, bidding regulations.
- Dave Smith outlined a worked example comparing current FPP allocation to the proposed FPP allocation under the alternative visibility model.

### **Next steps**

- The AEMC project team thanked TWG members for their time and noted that the next TWG will be held on 10 April at 2pm. The focus of that TWG 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.