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Australian Energy Market Commission
AEMC ref: ERC0352
Submitted via online portal

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Dear Ms Thomas,

Ausgrid response re AEMC's Integrating price-responsive resources into the NEM Consultation Paper (Consultation Paper)

Ausgrid is pleased to provide this submission to the Australian Energy Market Commission (**AEMC**) in response to the Australian Energy Market Operator's (**AEMO**) rule change proposal: Integrating price-responsive resources into the NEM, also referred to as Scheduled Lite (**SL**). Ausgrid is a distribution system operator (**DSO**) which operates the shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter.

DSO is an evolution of our role as a distribution network service provider (**DNSP**), marking a greater focus on the end-to-end energy system and facilitating active customer participation in markets to reduce costs for everyone. With more active customer and network energy resources connected to distribution networks, DSOs can dynamically manage and optimise network capacity. This allows distribution networks to support the clean energy transition at a lower cost and facilitate more efficiencies than would otherwise occur.

The electricity network industry's DSO vision recognises the vital role for flexible consumer energy resources (**CER**) in energy markets to ensure an affordable net zero energy system. Ausgrid supports initiatives that aim to increase CER participation, customer choice and retail market competition. Project Edith¹ is one example of how Ausgrid is leading with this ambition. We are making it easier for customers with CER to be rewarded for providing network support and are removing barriers to their efficient participation in markets. This vision is further reflected in the NSW Government response to the *Electricity Supply and Reliability Check Up*, which sees a role for DNSPs in CER orchestration through distributed generation.²

We understand that the policy intent for this rule change proposal from AEMO aims to integrate unscheduled price-responsive resources³ into market systems and is part of a package of reforms being progressed by market bodies to realise the benefits of CER for consumers to addresses complex and emerging power system challenges.

These resources are increasingly being combined into Virtual Power Plants (**VPPs**) which are actively responding to price signals in the National Electricity Market (**NEM**). The proposal

¹ Project Edith is a demonstration of dynamic network pricing and dynamic operating envelopes aimed at increasing market participation of CER and efficiently rewarding customers for network support.– see <https://www.ausgrid.com.au/About-Us/Future-Grid/Project-Edith>

² NSW Office of Environment and Climate Change. *Electricity Supply and Reliability Check Up*. https://www.energy.nsw.gov.au/sites/default/files/2023-09/Electricity_Supply_and_Reliability_CheckUp_NSW_Government_Response_September_2023.pdf/

³ The terms consumer energy resources and price-responsive resources are used interchangeably in this response though it is noted that they are not one and the same but rather form a substantial overlap with one another

expects that improved visibility of price-responsive resources and their intentions will enhance market certainty, accuracy of scheduling, and overall market efficiency.

Scheduled Lite

We support the ambition of increasing participation of CER in markets and support the intent of improved visibility of expected responses of price responsive resources. We understand that Scheduled Lite aims to achieve this by defining a new category of participant – the Lite Scheduled Unit (LSU), representing VPPs, and that LSUs will have a choice of two participation mechanisms:

1. Visibility mode: in which LSUs are incentivised to provide forecasts of VPP behaviour
2. Dispatch mode: in which LSUs are included in the market scheduling and dispatch processes.

It is expected that Scheduled Lite will be generally compatible with dynamic network pricing and VPP operators as traders could co-optimize with market value and customer needs as they do today, though they may need reliable forecasts of dynamic network prices and DOEs to forecast their own actions in accordance with Scheduled Lite requirements. This interaction/potential conflict between Scheduled-Lite with dynamic network price signals and DOEs will need to be carefully considered.

We understand that the rule change proposal appears to be proposing to utilise AEMO's SCADA Lite⁴ mechanism to exchange operational information (telemetry and control). We would like to highlight that the SCADA Lite proposal states that *"data collected by AEMO through SCADA Lite will not be shared with NSPs and/or other Participants. Sharing may be allowed post Participant approval."*

In the absence of this information, DSO operational forecasting accuracy will be reduced. DSOs need to forecast near-term (e.g. 0-48h) local network use for the purpose of setting DOEs, dynamic network pricing of demand response requirements. If LSUs are incentivised to follow a Scheduled Lite forecast or are dispatched, then this may influence local network use in a way that DSOs cannot account for. Reduced DSO forecasting accuracy would result in more conservative operations. This adds costs to consumers, either through higher network support payments, or more restrictive DOEs.

If the information proposed to be collected via Scheduled Lite can be made available to DSOs, this may assist in a material uplift in the DSO forecasting ability to enable the optimal setting of dynamic network prices and DOEs via a more granular understanding of the behaviour of price responsive devices and their price-elasticity functions.

Approach and Implementation Considerations

We support the proposal for the mechanism to be a voluntary, incentive based approach, though it is noted the exact mechanism and the complexity it may entail (i.e. payments, market information, reduced market participation costs, or link to FCAS eligibility) has not been settled on.

⁴ <https://aemo.com.au/en/initiatives/trials-and-initiatives/scada-lite>

The role of DSO's/DSNP's in the implementation of the rule change proposal appears to be minimal though this is subject to a thorough examination of the cost benefit analysis that we understand is expected to be developed throughout this rule change proposal (nominally expected later in the year) which should outline which parties are likely to be impacted and the magnitude of the impact (including items such as upfront and ongoing compliance monitoring)

2024-29 Regulatory Proposal proposed CER integration expenditure

Our proposed 2024-29 CER integration expenditure aim to:

- Make it easier for customers to participate in voluntary demand response programs and/or earn incentives through tariffs;
- Improve visibility of existing and emerging network constraints so they can be resolved and the network can be managed more dynamically and efficiently;
- Improve the ability of non-CER customers to access and benefit from excess solar energy;
- Improve our ability to work with CER customers, aggregators and VPPs to coordinate and optimise flexible loads; and
- Increase resilience for customers in areas where local generation and CER can be utilised to reduce frequency and duration of outages.

Our CER integration includes:

- \$24.9m investment in increased smart meter data;
- \$7.2m in network modelling uplift to utilise increased network visibility; and
- \$12.1m investment in dynamic services underpinning our DSO strategy.

We estimate that our proposal will unlock \$150m in energy market benefits and support the urgently needed increase in CER orchestration highlighted in AEMO's 2023 Electricity Statement of Opportunities.⁵

We welcome the opportunity to discuss our submission with the AEMC and AEMO. Please contact Jonothan Clarke, DSO Services Lead (Acting) at jonothan.clarke@ausgrid.com.au.

Regards,



Jonathon Dore
A/g Head of DSO Services

⁵ <https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/nem-electricity-statement-of-opportunities-esoo>