

22 September 2025

Ms Stephanie Jolly
Executive General Manager
Consumer Policy and Markets Division
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Dear Ms Jolly,

Ausgrid Community Power Network (CPN) Regulatory Sandboxing Trial Waiver Application

AEMO welcomes the opportunity to provide feedback on the AER's Issues Paper regarding Ausgrid's application for a trial waiver under the Energy Innovation Toolkit. The Community Power Network (CPN) trial represents the first significant proposal under policy-led regulatory sandboxing approach to explore new models for deploying and coordinating Consumer Energy Resources (CER) and Distributed Energy Resources (DER) at scale.

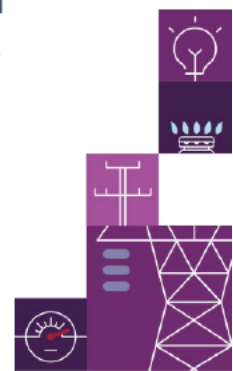
AEMO supports the AER's policy-led sandboxing approach and its intent to test the removal of regulatory barriers that may inhibit innovation. The CPN trial appears to align with broader sectoral goals of enabling a least-cost energy system and improving access to CER/DER for consumers. While Ausgrid's proposal is multi-faceted, AEMO's submission focuses on those aspects that relate to AEMO's role as the system and market operator.

Registration requirements

Apart from the application to waive National Electricity Rules (NER) clauses 6.6.5 and 6.17.1 that relate to capex re-opener and ring-fencing guidelines, our understanding is that Ausgrid's CPN proposal is to comply with all other legislative and regulatory requirements, including those related to registration, classification and assignment of market roles and responsibilities. We therefore expect Ausgrid will comply with and have regard to relevant AEMO registration information resources and guidelines published under NER clause 2.1.3, including the *Guide to Registration Exemptions and Production Unit Classifications (Guide)* and the factsheet for *Registering a Battery in the NEM*.

Under the Guide an automatic exemption from the requirement to register exists for a person owning, controlling or operating an Integrated Resource System with a nameplate rating of less than 5 megawatts (MWs), providing appropriate arrangements are in place with a Market Participant for the sale or purchase of electricity at the battery's connection point. The rationale for an automatic exemption for a battery with a nameplate rating of less than 5MWs when fully connected to a transmission system or distribution system, is that it is unlikely to cause a material degradation in the quality of supply to other Network Users.

AEMO understands Ausgrid's proposal involves a large number of standalone community batteries with a capacity of the order of 400-500 kilowatts (kW) each being deployed within two local network areas of Botany-Mascot and Charmhaven. Under the current Guide each battery of 400-500 kW would potentially be automatically exempt.



Ausgrid however intends to coordinate the community batteries, which in aggregate will have a nameplate rating of approximately 65 MWs across the two local network areas by the end of the trial period (when the fleet of batteries have been fully deployed). A nameplate rating of approximately 65 MWs within the two concentrated geographical areas is significant in terms of local network operation impacts, while any potential upstream power system impacts associated with grid reliability and resilience are unknown.

Given this, AEMO would value the opportunity to work closely with Ausgrid around the sharing of technical and operation information to ensure any potential power system risks are understood and managed, for example, minimum system load conditions. In addition to mitigating any power system risks, AEMO considers that the provision of key information can provide insights and learnings for NEM policy development to accelerate uptake of coordinated CER/DER as well as AEMO's technical assessments such as the Engineering Roadmap.

AEMO is reviewing what incremental amendments maybe required to the Guide so that it remains fit-for-purpose in the short term, cognisant that the forecast installation of CER/DER and the rise of the aggregators and Virtual Power Plants may have a potential influence on the bulk power system in the long term. AEMO anticipates undertaking a public consultation for its review of the Guide will commence in late 2025/early 2026. Given that the first wave of solar and batteries under Ausgrid's proposed trial would not be commissioned and managed until mid-2027, AEMO considers that it may be reasonable that an updated Guide may be in place which AEMO expects would be applied in the trial. AEMO requests the AER to draw the review of the Guide to Ausgrid's attention and recommends that the AER requires compliance with AEMO registration processes and guidelines in place at the time of any trial.

Market Arrangements

Ausgrid's proposal foreshadows engaging a Market Customer as a partner to act as the Financially Responsible Market Participant (FRMP) for the battery connection points. As the relevant registration exemption is currently subject to the appointment of a FRMP, AEMO would recommend Ausgrid provide clarity as to whom will partner with Ausgrid throughout the trial period sooner rather than later. The appointment of a FRMP is critical for the assignment of market roles and responsibilities for participation in the energy and ancillary service markets (as required under the NER), noting that:

- the FRMP classifies the connection point for each battery as a market connection point,
- the FRMP requests the Local Network Service Provider creates the National Metering Identifier (NMI) for the market connection point and appoints a Metering Coordinator (MC),
- the MC in turn determines the Meter Provider (MP) and Meter Data Provider (MDP) who provide compliant metering equipment and meter data services to support market settlement functions.

Visibility and predictability of coordinated battery resources

The visibility and predictability of Ausgrid's coordinated community battery fleet, particularly given the forecast size of the fleet, is important to AEMO for the purposes of operating the market and maintaining system security and reliability.

While AEMO will have a level of visibility of coordinated battery resources, predictability will rely on the technical characteristics of the battery resources and the orchestration approach. Insights around the design, technical standards and orchestration approach (i.e. details around the control architecture and if the orchestration function will be programmed identically across Botany-Mascot and Charmhaven, technical aspects such as response to network

voltage and frequency disturbances, anti-islanding and whether the batteries are grid-forming or grid-following) would allow a better understanding of the impact of the proposal on the safety and reliability of supply of electricity to other Network Users. AEMO consulted on technical requirements for 200 kW to 5 MW DER connections¹, with the report outlining key functionality of DER assets/connections (for instance, around active power curtailment and remote monitoring and protection settings) with a voluntary guideline to be published in coming weeks. It would be helpful to understand whether Ausgrid's connection process and standard connection contract for CER/DER under 5MWs support these technical requirements, including technical assessment approach to ensure distribution network and sub transmission network is operated within the technical envelope.

Additionally, AEMO understands that Ausgrid does not intend to voluntarily schedule the pool of batteries. Noting their deployment coincides with the full commencement of the Integrating Price Responsive Resources (IPRR) into the NEM in 2027, registration as a Voluntarily Scheduled Resource (VSR) would provide AEMO and the market with forward pre-dispatch visibility of these resources when providing network support services. AEMO encourages Ausgrid to consider classifying some or all of the battery resources as VSR to enhance system visibility and operational coordination.

Alignment with broader reform directions

The NEM Wholesale Setting Review Final Report, expected in December 2025, is likely to recommend pathways for improving visibility of price responsive resources, particularly as their deployment reaches tipping points with upstream system impacts. AEMO requests that the AER consider any recommendations of this report when making its decision on the trial waiver application, as any review recommendations are likely to be implemented within the proposed five-year trial period.

Another key learning opportunity relates to Distribution System Operator (DSO) model and capabilities. The DSO workstream is being progressed under the federal Department of Climate Change Energy Environment and Water (DCCEEW) National CER Roadmap, which is looking to defined roles for distribution system and market operators. In response to a recent DCCEEW consultation, AEMO supported the proposed near-term actions as urgent priorities for system security and “no-regrets” foundational steps for the groundwork for Distribution Network Service Providers (DNSPs) to develop DSO capabilities. As set out in our submission, AEMO considers the DSO capability should reside with DNSPs. This is fundamental to Ausgrid's CPN proposal, which seeks to leverage network capacity and constraint data to optimise battery coordination.

The July 2025 implementation plan update for the National CER Roadmap indicates that recommendations on redefined roles for market and power systems operation are on track to be made to Energy and Climate Change Ministerial Council for their consideration by the end of 2025². Any decision by the AER regarding this sandboxing trial waiver application is separate to and should not be seen to limit scope to redefining roles for market and power system operations in future.

AEMO impacts and potential conditions

Based on the information presented in Ausgrid's trial waiver application, AEMO has not identified any adverse effect on AEMO's operation and/or administration of the National Electricity Market (NEM) of material concern. That said, for the reasons set out above, should the proposal progress, AEMO requests continued engagement with Ausgrid including

¹ [aemo_technical-requirements-for-200kw-to-5mw-der-connections_sept-2024_final_.pdf](#)

² Refer p31, P.5.1 of the implementation plan update for the National CER Roadmap

the provision of further information on the design and proposed operation of the battery fleet to better understand any operational implications.

AEMO has not identified any system changes that would be required to facilitate this trial providing Ausgrid observes market arrangements prescribed by the NER. Should the AER determine that the CPN proposal meets the eligibility requirements and innovation trial principles criteria, a number of safeguards would likely need to be considered relating to consumer protection, competitive neutrality and transparency in cost allocation. AEMO has identified some potential conditions that should be contemplated should the CPN trial progress.

1. Reporting Requirements

Trial progress and implementation status should be reported on a bi-annual basis detailing: deployment status of solar and battery assets, any delays, technical issues, or changes to the implementation plan, the DER performance, network and customer benefits derived from coordinated batteries.

2. Publication of the Spatial Energy Plan on an annual basis.
3. Publication of a key learning report mid-way through any trial period and at the conclusion of the trial period.
4. Compliance with all other NER requirements not relaxed in the trial, including the application of AEMO's registration information resources and guidelines in place at the time of the trial (noting these may have evolved in the lead up to the trial) and any voluntary guideline on technical requirements for 200 kW to 5 MW DER connections.

As a regulatory sandboxing partner, AEMO supports the AER in identifying opportunities that enable innovation through regulatory sandboxing and looks forward to the AER's assessment on the potential for the CPN trial to deliver valuable insights and benefits for consumers and the energy system.

If you would like to discuss this matter further, please contact [REDACTED], AEMO Group Manager – Strategic Market Reform [REDACTED].

Yours sincerely,

[REDACTED]

[REDACTED]

Executive General Manager, Policy & Corporate Affairs