Friday, 22 August 2025

CER Taskforce
Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601

Submitted online via Have Your Say

Clean Energy Council Submission to Redefine roles and responsibilities for power system and market operations in a high CER future (M3/P5)

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Federal Department of Climate Change, Energy, the Environment and Water's (DCCEEW) consultation paper on Redefine roles and responsibilities for power system and market operation (M3/P5).

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 accredited designers and installers of solar and battery systems, 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 cleaner, equal, fair and transparent for all consumers.

Deployment of rooftop solar, home storage and orchestration will deliver significant benefits to consumers who invest in these types of products and services, as well as to the wider system and will be a significant part of Australia's decarbonisation ambitions.

The success to date has been driven by consumers understanding the value of consumer energy resources (CER) to themselves and having the agency to get the most out of their investments, highlighting the importance of defining roles and responsibilities for a system that incentivises and rewards customer participation.

The CEC is supportive of the approach taken in this consultation to clarify, formalise and standardise roles and accountabilities to create the boundaries in the system and the appropriate safeguards to operate. However, we reiterate the importance of preserving customer choice and competition as we move towards a high CER future. As outlined in the consultation paper, realising the potential benefits of CER is not a given.

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The consultation has effectively captured the activities needed to operate power systems and markets in a high-CER future, supported by a strong capability framework and role glossary. However, these must be treated as living frameworks, regularly reviewed by industry as products, markets and consumer behaviours evolve. Clarifying, formalising and standardising roles and accountabilities is seen as an **immediate priority**, combined with the need for harmonisation of these actions across the multiple ongoing national workstreams to deliver consistency, reduce duplication and enable consumer benefits at scale.

The CEC outlines the following recommendations as achievable outcomes for this workstream:

1. The coordination of this workstream with the establishment of a National CER Technical Regulator is a critical priority for the sector.

A National CER Technical Regulator should have the scope and authority to address many of the actions described in **Outcome 1**, with a particular focus on ensuring that there is complete jurisdictional alignment and facilitation of the consistent application of technical requirements. Apart from the establishment of national consistency and coordination, the National CER Technical Regulator will also require a set of hierarchy of priorities that are focussed on delivering the right consumer outcomes and therefore encouraging consumer take up and participation.

2. Harmonise this workstream with NEM Review and other CER-related reforms.

This workstream should seek to align with the CER-related recommendations proposed in the NEM Wholesale Market Setting Review, allowing for increased visibility, integration and participation of these assets. The CEC supports **Design A** (optimisation within current market structures) as the most appropriate model in the short-to-medium term and most harmonised with the NEM Review.

3. The fastest pathway to improve accountability and clarity in obligations is reform within the existing framework (**Governance Option 4**).

Governance and regulatory reform are essential to address misaligned incentives, transparency gaps and inefficiencies in current Distribution Network Service Provider (DNSP) arrangements. Regulatory reform is preferred over establishing a new independent Distribution System Operator (DSO), though the options for integration of an independent DSO or Coordination and Facilitation Body (CFB) within an existing organisation should remain subject to cost–benefit analysis. We highlight the importance of regulatory reform prioritising:

- Structural issues regarding network data transparency obligations
- Network tariffs leading to the creation of price signals to incentivise customer participation
- Strong ring-fencing guidelines and arrangements to continue to protect energy customers
    - Ring-fencing should preserve competitive neutrality while explicitly allowing DNSP-led, safety-critical DSO functions (e.g. emergency backstop extensions, default communications for critical signals, safe

islanding/reconnection), governed by strict neutrality, transparency and cost-allocation principles.

The remainder of this submission directly addresses the questions provided in the consultation paper and provides further details to support the above recommendations.

If you have any queries or would like to discuss the submission in more detail, please contact Maxime Di Petta (mdipetta@cleanenergycouncil.org.au)

Kind regards,

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Feedback on Consultation Questions

1. Have we captured all the activities (or 'use cases') required to operate power systems and markets in a high CER future? If identifying 'missing' use cases, consider whether they are a sub-set of an existing activity.

The structured capability model has accurately captured the range of activities required to operate power systems and markets with high levels of CER. As the capability framework was developed in collaboration with the Data Sharing Arrangements Workstream, and in consultation with the DSMO Working Group, a significant range of industry perspectives have had ongoing input in the identification of use cases. We encourage the use of the capability framework across different workstreams of the CER Roadmap and any other National consultations relating to the distribution system or behind-the-meter services to ensure a consistent approach to understanding activities.

2. Have we assigned each of the activities to the appropriate role and existing actor?

The capability mapping, including the Role and Actor Glossary, is comprehensive and establishes a foundation for clarifying, formalising and standardising roles. The CEC is supportive of the assessment criteria to guide actor assignment outlined in Appendix A, with sufficient consideration given to both the assigned role and other roles involved. The Capability, Use Case and Role-Actor Assignment Worksheet further provides a common framework and language for stakeholders to understand the options presented in this consultation paper.

3. Should any of the actor assignments be reconsidered now or in the future? When explaining why, please refer to our assessment criteria in Appendix A.

The capability mapping should not be a static exercise, only used to provide context to current workstreams under the National CER Roadmap. The CEC recommends that the actor assignments are systematically reviewed as power system and market operations evolve in the future. The DSMO Working Group serves as a diverse industry knowledge base to continually test and reassess actor assignments. As National CER Roadmap workstreams progress, it is encouraged the DSMO Working Group reconvene annually, to ensure the market is appropriately captured and the assessment criteria reflects accurate actor assignments.

4. Do you agree that clarifying, formalising and standardising the roles, expectations and accountabilities in these six areas is an immediate priority? Are there any specific timeframes within which the actions should be delivered?

As outlined in the consultation paper, challenges for CER integration arise from a lack of formal role assignment, expectations and accountabilities, and standardised approaches to roles across the NEM. To ensure the appropriate actors are accountable and undertake activities effectively, the CEC is supportive of clarifying, formalising and standardising roles as an immediate priority.

The following timeframes should be considered for each outcome:

Outcome 1: The roles, expectations and accountabilities relating to Outcome 1 should be clarified, formalised and standardised to align with the commencement of a National regulatory framework for CER to enforce standards (T2). As consultation is currently underway on this workstream, it is recommended that the timeframe on these actions be informed by the co-design process in the T2 workstream to avoid duplication.

Outcome 2: Specific timeframes for the actions under Outcome 2 may vary by jurisdiction due to differences in current development of off-market mechanisms. The coordination and communication of standardised material to enable widespread adoption and consumer participation should also be an immediate priority. Alignment of Outcome 2 with the Extending consumer protections for CER (C1) and CER information to empower consumers (C3) will reduce duplication between workstreams.

Outcome 3: As Outcome 3 actions relate primarily to system security and emergency management, it is considered that these are already being significantly met by the market operator. Alignment with the initiation of the emergency backstop mechanism in NSW/ACT by mid-2026 would be an appropriate timeframe for delivery of these actions.

5. Are there any other areas where roles, expectations and accountabilities need to be clarified, formalised and standardised as an immediate priority?

While the consultation paper outlines the reasoning behind the exclusion of cyber security and consumer privacy, it is critical that roles, expectations and accountabilities are clarified, formalised and standardised within this workstream to ensure the sufficient consideration of risks around malicious cyber actors in distribution system operation.

An additional immediate priority is the definition of Original Equipment Manufacturer (OEM) or aggregator exit and deprecation protocols. This includes a technology neutral platform of last resort for safety critical functions, minimum reliability/latency thresholds and clear handovers between actors.

6. For each of the six areas of focus, who do you think should be responsible for clarifying, formalising and standardising the roles, expectations and accountabilities (e.g. governments, market bodies, industry) and through what mechanisms (e.g. rules or other regulatory instruments, policy guidance, investment)?

Outcome 1: CER is visible and predictable and can be effectively used as part of power system operations

The actions outlined in Outcome 1 would be most appropriately formalised and standardised through the establishment of a National CER Technical Regulator. A National CER Technical Regulator should have the scope and authority to manage the standardisation of actions under Outcome 1, with a particular focus on prioritising the most urgent device level and CER monitoring data, while ensuring that there is complete jurisdictional alignment.

The CEC believes that allocation of this responsibility to the National CER Technical Regulator will provide significant benefits both to industry and to customers:

- Coordinating all CER technical requirements through a single body will provide more jurisdictional consistency and could be used as a single source of information for installers and CER retailers, ensuring clear and consistent customer communications.
- It will reduce duplicative, jurisdictional specific engineering work needing to be done by original equipment manufacturers (OEMS) which drive up the cost of products.
- It will result in a more robust consideration of mechanisms that require CER to behave in a certain way, which impacts customer use case for those assets.
- It will ensure consistency in approach across the country, which will make it easier for aggregators and retailers to optimise CER for market use – passing back benefits through to those customers who have opted in, as well as creating broader market benefits.

As the National regulatory framework for CER to enforce standards (T2) consultation is currently underway, it is recommended that the mechanisms to achieve Outcome 1 be integrated into that workstream as part of the co-design process.

A key factor for consideration of the National CER Technical Regulator under Outcome 1 relates to the provision of data and understanding the most effective way to sample and build on existing data to improve visibility. Updating and maintaining the quality of data over the lifetime of the installation is outlined in Action 1, however this should be balanced with the cost-effectiveness and minimum standard of data needed to achieve increased visibility and predictability.

New data sharing requirements should be based on strong evidence of need, particularly where these relate to consumer information which needs to be accompanied by strong privacy measures. Sufficient consideration should be undertaken on the integration of existing work, such as the DER Register and CER Data Exchange, by the National CER Technical Regulator. The clarification, formalisation and standardisation of these workstreams will reduce duplication and streamline data access and visibility for industry.

While undertaking this work, it is essential there is an appropriate balance between the cost of implementation and benefits experienced in terms of customer outcomes.

The Australian Energy Market Commission (AEMC) further plays a role in Outcome 1 in clarifying and formalising these roles and responsibilities. As the National CER Technical Regulator progresses with standardisation and coordination of requirements, it is expected the AEMC will be responsible for undertaking definition and rule changes within the National Electricity Rules (NER).

Outcome 2: CER is orchestrated effectively to deliver value for consumers and the power system

The variety of off-market mechanisms outlined in Outcome 2 to support orchestration of CER, including flexible network limits, dynamic connections, non-network solutions and dynamic network prices are all currently underway as trials or services across different jurisdictions. The CEC is supportive of the formalisation of the roles, expectations and accountabilities of the actions defined in Outcome 2 to be undertaken by DNSPs, with an overarching focus to achieve better consistency and consumer outcomes.

As outlined in the consultation paper. the most effective orchestration of CER should promote efficient power system and market operations. This requires the correct technical capability, data, frameworks and processes in place to enable at scale CER integration and response to dynamic signals.

However, it is important to consider that these off-market mechanisms will only be available and taken out by customers if there is a product that effectively appeals to them. Furthermore, not all customers will want to, or should be expected to, participate in energy markets. Hence why the actions outlined in Outcome 2 should seek clarification beyond network and system perspectives and facilitate consumer choice. The clarification, formalisation and standardisation of Outcome 2 will need to consider accessibility of products to customers through retailers or customer agents and the communication of value proposition to consumers. A key consideration will be understanding that the success of Outcome 2 is dependent on understanding the customer journey, rather than just technical requirements.

In regard to the formalisation of conformance and compliance, it is reasonable to assign those responsibilities to the organisations deploying the new services (e.g. DNSP/DSO) as there will be increased understanding of management of resources compared to a new operating body. However, there needs to be clarification provided over the degree of resourcing required to undertake Action 5 effectively.

Additionally, the degree of standardisation for Outcome 2 may vary in terms of granularity. The consultation paper outlines standardisation of network capacity calculation as a proposed approach; however, it may be more effective to standardise the communication of network capacity. This still aims to provide consistency to consumers while accounting for differing jurisdictional approaches to calculations

Outcome 3: CER plays a central role in system security and emergency management frameworks and processes

As outlined in the consultation paper there are opportunities presented by CER to help balance supply and demand to deliver secure power system outcomes, however CER must be sufficiently integrated into system security and emergency management frameworks and processes. Hence, CEC is supportive of the Australian Energy Market Operator (AEMO) as the responsible body for clarifying, formalising and standardising the roles, expectations and accountabilities related to Outcome 3 through the development of guidelines for network operation. The well-established processes, management methods and services at the transmission level to maintain system security are provided by AEMO and highlight the suitability of this actor to undertake similar actions at the distribution level.

It is recommended that the CER Taskforce also play a role in setting the policy direction relating to system security and emergency management frameworks, creating clear boundaries and foundational assumptions around roles and responsibilities for AEMO to build upon in guideline development. These guidelines should also explicitly cover microgrids, stand-alone power systems (SAPS) and grid-forming BESS, including minimum performance standards and safe islanding/reconnection, with clear functional allocations between AEMO and DNSP/DSO.

7. For each of the six areas of focus, what factors should be considered when clarifying, formalising and standardising the roles, expectations and accountabilities?

Consideration of factors is included in CEC response to Question 6.

8. Do you think off-market mechanisms, along with other actions to improve visibility and predictability, support effective orchestration and embed CER in system security frameworks will, over time, be able to capture most (if not all) of the benefits of market orchestration of CER?

The CEC is supportive of the value and importance of off-market mechanisms to create incentives for market orchestration of CER. The integration and increased visibility of distribution-level resources into the existing regional market framework should be supported by mechanisms such as dynamic operating envelopes and network tariffs to most efficiently manage local constraints. While these mechanisms have been characterised as "off-market", these should be designed in a way which enables customer agents to integrate CER into market frameworks without competing against incentives in the energy market. If network and market incentives can be aligned, and passed on to consumers, this will increase the uptake of orchestration and therefore increase transparency in the operation of CER.

It is important to reiterate that not all customers will want to participate in orchestration in the future. As discussed in the consultation paper, many CER are expected to remain outside the market, highlighting the importance of simplified mechanisms for customers to engage in system services and gain value from their investments.

9. Do you think the long-term benefits of distribution-level market arrangements would outweigh the cost and complexity of implementation?

The CEC is supportive of the recommendation introduced in the NEM Review Draft Report[1] outlining that integrating CER within the existing market is preferable to creating new distribution-level wholesale markets. This change would require an extended and detailed consultation with market, industry and consumer stakeholders to best determine the costs and benefits of implementation and should be view as a long-term option rather than outcome of the M3/P5 workstream. As described in the NEM Review Draft Report, the creation of a separate distribution-level wholesale energy market would involve significant implementation costs, with potential negative consequences for competition[2]. It is encouraged that the outcomes of this workstream relating to market design align to the recommendations of the NEM review to reduce duplication of work at the national level.

10. What triggers/conditions in the future might indicate a need for more fundamental reform to more comprehensively integrate CER into the NEM wholesale market?

Rather than being dependent on specific triggers to indicate the need for more fundamental

[1] National Electricity Market wholesale market settings review
[2] National Electricity Market wholesale market settings review

reforms, it is the recommendation of the CEC that Design B and C remain long-term goals for market reform.

This is incumbent on reducing complexity for consumers, with simple, actionable and clear products and services. A strong vision for the medium to long-term state in needed to provide direction for market participation and CER revenue streams, however this needs to be balanced with an understanding of the potential for increased resourcing and costs for industry.

In 2024, CEC modelling estimated the cost of not meeting CER forecasts under the Step Change scenario by replacing shortfalls in CER with large-scale renewable energy generation and storage and building out the distribution network to manage large amounts of rooftop solar[3]. Not meeting CER forecasts risks losing over $22b in savings for Australian taxpayers and over 18,200 jobs in selling, designing and installing CER. Harmonisation of the long-term outlooks of this workstream and the NEM Review provide the opportunity to reframe the goal and highlight the true value of the distribution system to meet Australia's net zero targets.

11. Which of the models described in the chapter are most appropriate to integrate CER into the NEM wholesale market? Are there any other market designs that you think should be considered, compared to Designs A-C in this paper?

The NEM Review Draft Report outlines several key recommendations regarding the integration of CER into the NEM wholesale market[4]:

- **1D:** Do not create distribution-level wholesale energy markets. Instead, facilitate distribution-level energy resources to participate in regional markets and use dynamic operating envelopes and dynamic network tariffs to manage local constraints.
- **2A:** Leverage the VSR participant categories established under the IPRR dispatch mode framework to give effect to Recommendation 2B.
- **2B:** Energy ministers should propose a rule change to the AEMC requiring that, by 2030, various forms of price-responsive resources should be visible or dispatchable in a relevant participant category, with this obligation falling on the relevant participant.
- **2C:** Energy ministers should establish a structured support framework to encourage price-responsive resources to participate in the IPRR framework, WDRM or as scheduled loads
- **3B:** Government incentives for investment in CER, such as for batteries, should support resources that are enabled to participate in the market through aggregators and are ready for dynamic network connections.

As Design A is an evolution of current market arrangements, focused on incorporating increased visibility and forecasting of unscheduled CER, many of these recommendations align with the proposed model. To achieve consistency in the outcomes of this workstream with the direction of the NEM Review Panel, it is recommended that only Design A is appropriate for integration of CER in the short to medium term future of the NEM wholesale

[3] Powering-Homes-Empowering-People-CER-Roadmap.pdf
[4] National Electricity Market wholesale market settings review

market. The immediate priority should be optimisation of the existing market with the lowest-cost source of generation, as described in Design A. However, real-time market operation should be framed as a shared future state goal for industry to deliver the best consumer outcomes as we progress to a high CER energy system.

12. What complementary measures would be necessary, for example in retail markets, to support effective implementation of the models described in the chapter?

No additional comments.

13. Do stakeholders agree with the potential issues we have identified when considering whether or not DNSPs can perform the role of DSO effectively? Which issues do you consider to be the highest priority to address?

The CEC is supportive of the issues identified in the consultation paper when considering the effectiveness of DNSPs to perform the DSO role effectively. The current regulatory framework for DNSPs tends to favour existing participants and may limit the ability for innovative and competitive solutions to enter the market, indicating the need to prioritise regulatory reform. The following issues are considered high priorities for regulatory reform:

- Inefficiencies, duplication of work and increased complexity due to a lack of national consistency in connections, systems and processes.
- Existing network tariff designs are based on network investments and cost recovery, rather than rewarding flexibility and innovation CER and non-network solutions.
- Lack of transparency over network data, creating inconsistent visibility over hosting capacity and in turn impacting efficient CER deployment and network development.
- Capital expenditure and growth of the Regulated Asset Base (RAB) are incentivised over non-network solution under the current regulatory framework, reducing the ability for CER to replace traditional network augmentation.

14. When considering how best to integrate CER into the power system and market are the institutional arrangements that govern how decisions are made within a DSO a priority for you?

The CEC is supportive of the consultation paper's consideration of governance and institutional arrangements and the identification of current shortcomings in DNSP incentives and accountabilities under the NER. This highlights the current institutional arrangements are not considered fit-for-purpose for effective distribution system operation into the future, hence action on governance reform should be an immediate priority of this workstream after clarifying, formalising and standardising roles.

15. Noting the near-term, no-regrets actions identified in chapter 3 to improve the delivery of DSO functions under a high CER future, do you consider there is a need for an independent DSO in the future? If so, why?

The establishment of a new independent DSO in the future may create challenges around the complexity, timing and cost associated with the development of a new entity. Hence, it is the CEC's preferred option that regulatory reform is prioritised, with the option to either develop a coordination and facilitation body (CFB) or integrate the DSO function within an existing

organisation. If a new independent DSO is pursued by this workstream, it is encouraged that DCCEEW undertake a cost-benefit analysis to demonstrate the long-term benefits to customers compared to immediate regulatory reform.

The progression of the National regulatory framework for CER to enforce standards (T2) workstream provides the opportunity for the future National CER Technical Regulator to undertake the roles and responsibilities outlined for the CFB. This would require appropriate funding, governance and resource allocation to ensure harmonisation across the two workstreams. As the establishment of the National CER Technical Regulator aims to develop, maintain and enforce internationally aligned standards, the coordination of consistent processes and protocols to maximise access between distribution system participants is logical extension of their role.

16. Would you support further investigation of any of the other governance reform options, and if so, which one/s and why?

The CEC supports the adoption of Option 4 – pursue regulatory reform within the existing framework to address and mitigate the identified issues. It is recommended that regardless of the DSO governance model, that regulatory reform is still undertaken to provide the correct incentives and objectives for DNSPs to perform the DSO role in a way that maximises the value of CER and delivers the best consumer outcomes. The following outcomes can be considered when undertaking regulatory reform:

- **Address structural issues regarding network data transparency obligations**, this will enable better identification of non-network solutions and the value of consumer assets. While the Energy Consumers Australia Integrated Distribution System Planning rule change request and integration of demand-side factors in system planning will provide the necessary data, the CEC is supportive of the actions outlined in the data sharing arrangements workstream (M2) to develop a National CER Data Strategy and Coordination Plan.
- **Network tariffs should lead to the creation of price signals to incentivise customer participation**, through the harmonisation of actions in the consultation paper with the Enable new market offers and tariff structures to support CER uptake (M1) workstream.
    - These reforms may encourage distribution businesses to provide price signals that reflect real- or near real-time conditions in the network. Price signals are already used by some retailers and aggregators to allow customers with CER systems (and demand response capabilities) to respond to wholesale electricity and ancillary services price signals. Distribution businesses could use price signals to encourage flexibility for peak demand and voltage management.
    - Ausgrid's recent Project Edith[5] provides an example of how dynamic network prices can be used to support customers better maximise their CER assets through a retailer or aggregator managing the consumer's battery in a VPP.

[5] Project Edith - Ausgrid

- **Ring-fencing guidelines and arrangements should continue to protect energy customers** and encourage competition through innovative products and services. This requires ongoing consideration and consultation by the Australian Energy Regulator (AER) of the potential impacts of waiver applications to a range of stakeholders in the distributed energy sector.

17. Are there governance reform options that we have not identified that should be considered?

No additional comments.