12 December 2024

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Australian Energy Market Commission
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Sydney NSW 2000

Submitted electronically via aemc.gov.au.

Clean Energy Council Submission to the Australian Energy Market Commission's Consultation Paper and Final Terms of Reference – Electricity Pricing for a Consumer Driven Future (EPR0097)

Dear Zak,

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Commission (AEMC) on the "Consultation Paper – Electricity pricing for a consumer driven future", as well as the Final Terms of Reference

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 a range of stakeholders in the National Electricity Market (NEM), 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 smarter and cleaner.

Consumer Energy Resources (CER) are an incredibly important part of this transition, and the CEC is supportive of a review that ensures consumers continue to benefit from their CER, while also having the option of being on tariffs that reward them for responding to market needs. In addition, this review should not only consider the prices consumers are charged for these services, but also payments to consumers for grid exports or network services provided from their CER assets. This will ensure future arrangements will support a bidirectional flow of energy and allow consumers to use their energy flexibly.

The Terms of Reference (TOR) provide a good overview of the purpose and reasoning behind this review. Whilst it is important to keep the scope broad at this stage, the CEC would support the AEMC providing detail on specific considerations that might be captured under each key area of focus. This would better indicate to stakeholders the range of this review, allowing the AEMC a better understanding of critical issues and key priorities early in the process.

The inclusion of a set of principles to guide this review is supported by the CEC as they are essential to ensuring consumer preferences are central in the assessment of potential solutions. The early inclusion of principles ensures they guide a consumer-centric approach to the outcomes throughout the entire review.

The CEC's *Powering Homes, Empowering People: A National Consumer Energy Resources Roadmap*[1] published in June 2024, included four key consumer principles to guide the development of the Roadmap:

- Enhance consumer choice and participation
- Value to consumers for services provided
- Reduce/no impact on energy costs for non-participants
- Build social license and trust

These four principles aim to drive consumer engagement and encourage fairness in the energy system. It should be ensured that this review provides clarity on how CER and associated services will reduce energy bills for all consumers; reward consumers for participating in wholesale and ancillary services markets, and how distribution businesses pay for access to the assets to provide network system services through charging and access arrangements.

The CEC Roadmap identifies 5 priority themes and 16 recommendations. These are all viewed from the perspective of providing a CER regulatory and market environment where consumers want to actively participate because they are rewarded for their behaviour and support for the wider electricity system.

Incentives are a priority theme identified in the CEC's CER Roadmap. The Roadmap calls out that creating the right market arrangements can result in actions from market participants that serve to enhance the incentives. For example, ensuring that price signals exist in the market can provide a value proposition that can be used by CER product or service providers. Access to the wholesale market prices signals and network price signals for voltage management or peak demand congestion reduction – while potentially very difficult for individual consumers to respond to – can allow CER aggregators to monetise the likely future value of CER flexibility and offer attractive arrangements such as monthly or seasonal cash payments to consumers with controllable CER.

We have appreciated the AEMCs engagement with the CEC between the release of the Draft TOR and the Consultation Paper. This, alongside the Consultation Paper, has provided helpful context on what the AEMC is looking to achieve with this review. The following section directly addresses the consultation questions provided by the AEMC within the consultation paper.

If you have any queries or would like to discuss the submission in more detail, please contact Con Hristodoulidis (christodoulidis@cleanenergycouncil.org.au)

Kind regards,

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Con Hristodoulidis
Director of Distributed Energy
Clean Energy Council

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[1] Powering-Homes-Empowering-People-CER-Roadmap.pdf (cleanenergycouncil.org.au)

Response to Consultation Questions

Do you consider that we should make any changes to our proposed approach to this review?

The CEC supports the proposed approach to this review. However, we also note, the future-looking market solutions will be heavily influenced by current market and regulatory arrangements. Hence, any solutions to promote pricing arrangements to maximise the use of CER should also consider short term no regrets reforms.

While we also support the three focus areas of market arrangements, role of distribution networks and role of retailers and energy service providers, the review should also consider the role of government policy settings. Experience has shown that government policy settings like the Renewable Energy Target and associated Small-scale Certificate programs have markedly transformed both large scale and small-scale renewable energy generation. The market arrangements and role of distribution networks failed to identify these changes, and the regulatory framework has been slow, ad hoc and inefficient to respond. So, while consumers have embraced rooftop solar and are quickly turning to home storage, energy management systems, electric vehicles (EV) and home charging, the regulatory system is playing catch up.

What are your views on our proposed Consumer Preference Principles? Are you aware of additional existing research that could help us refine the CPPs? How might the CPPs help us in assessing whether our decisions will lead to good consumer outcomes?

What are your views on our proposed Consumer Archetypes?

The CEC generally supports the Consumer Preference Principles and Archetypes.

However, we consider the review should also set a framework that it will use to assess success against the principles and archetypes. In particular, how would future pricing arrangements promote a market-based, consumer-led response? It is important to emphasise the value of innovation, competition, and consumer choice. A market-driven approach allows consumers to shape the products and services they use, leading to better outcomes and more diverse options. Viewing the future arrangements from this lens will focus on solutions that best satisfy the principles and archetypes outlined in the Paper.

For example, the previous Queensland Government announced the establishment of Local Renewable Energy Zones for Caloundra and Townsville to assist the community generate and store more renewable energy to share locally across the electricity distribution infrastructure that already exists. Solar and batteries built on the distribution network or on community assets (e.g., swimming pools, libraries, surf lifesaving clubs) can be a valuable resource for customers who cannot install their own. These renewable energy assets also provide valuable network services to reduce network expenditure and manage peak/minimum demand events.

However, assessing the success of these zones from two different perspectives – i.e. promote competitive market solutions or providing distribution businesses with a ring-fencing waiver, will lead to different consumer outcomes against the principles and archetypes. As an alternative to offering a ring-fencing waiver, another solution could draw upon the structure of the Capacity Investment Scheme to encourage new investment in local renewable and storage solutions. Energy Queensland could seek competitive tender bids in declared zones to improve network utilisation and manage peak demand issues. A competitive tender process is likely to lead to more innovative and cost-effective solutions.

While the Consumer Archetypes provide a useful starting point, it is also essential that the archetypes reflect not only current but also emerging consumer behaviours. The primary differentiation should indeed be engagement, as consumers who are more actively engaged are likely to seek out innovative products and services that meet their unique needs. However, it is also important to consider other factors like technological literacy, income, and evolving energy needs (i.e. affordability and emissions reductions) in a rapidly changing market. Consumer archetypes should evolve to capture diverse demographics and behaviour patterns that may emerge with technological and digital advances.

It is important to recognise that pricing arrangements alone will not satisfy positive outcomes for all archetypes. Ensuring full access and equitable outcomes for all archetypes will require broader policy consideration. For example, 'behind barriers' and 'not left behind' archetypes may require a greater focus on social and energy policy solutions beyond pricing arrangements.

We want stakeholders to help us imagine the widest range of possible future products, services, and pricing structures. How might they look in the future?

The CEC encourages the AEMC to primarily focus on creating a framework to encourage future market arrangements in this review. These market arrangements should provide for consumer choice between a range of appropriate pricing structures products and services. If done successfully, this will allow stakeholders the opportunity to innovate and introduce new products, services and pricing structures.

How could electricity products, services, and pricing structures be presented to serve future consumers?

The CEC believes to effectively serve future consumers; electricity products, services, and pricing structures should be designed with flexibility, transparency, and consumer choice in mind. The key for this review is not to choose one pricing structure over another. Rather the focus should be on developing the right incentives and assigning the right risks to market participants who can develop a range of product and service offerings. This will enable consumers with different energy preferences to make a choice that best suits their needs.

For example, digital platforms and smart technologies are already playing a central role in presenting these offerings, enabling consumers to track energy usage, optimise their consumption, and manage costs. Dynamic pricing models, such as time-of-use or subscription-based tariffs, can allow consumers to select options that best align with their lifestyles and energy needs.

Electricity services will also integrate other technologies like smart meters, energy storage solutions, and electric vehicle charging, allowing consumers to make more informed decisions and participate actively in demand-side and/or virtual power plant (VPP) services. Clear and simple communication is essential to ensure consumers understand the value propositions of various products, enabling them to make informed choices that align with their financial, lifestyle and climate goals.

Moreover, personalised energy solutions, supported by data analytics and customer insights, could help tailor offerings to individual preferences and behaviours. Overall, providing a range of flexible, transparent, and technology-enabled products and services will help future consumers engage with the energy market more effectively, ensuring both convenience and sustainability.

How could consumer protections be balanced to enable further innovation in a future retail electricity market?

The CEC believes that fit-for-purpose consumer protection is crucial for building trust in emerging technologies and markets. The New Energy Tech Consumer Code (NETCC) serves as a voluntary code of conduct, developed by leading industry and consumer bodies, which complements existing

mandatory consumer protection regulations established by the Australian Competition and Consumer Commission (ACCC). The NETCC currently applies to technologies such as rooftop solar, battery storage, EV chargers, and home energy management systems. It requires that retailers and installers of these technologies implement business practices that adhere to specified consumer protection standards. These include providing fair and transparent quotes, adhering to ethical sales practices, and ensuring quality after-sales customer service.

While the AEMC and the Australian Energy Regulator (AER) have made efforts to establish new, fit-for-purpose consumer protection obligations for CER, much of this work has been effectively undertaken by consumer and industry groups. Their efforts have provided a clear framework that can be used as a template for further development in this area. This collaborative approach ensures that consumer protections are aligned with the evolving market and technological landscape, fostering confidence in new energy products and services.

For further discussion on the role of the NETCC in providing a framework in balance consumer protection and enabling innovation, please see the CEC's CER Roadmap, pages 35 and 36.[2]

What should network tariffs look like in the future? What are the key choices and trade-offs we should consider when answering this question?

The CEC believes that network pricing arrangements must be designed to promote efficient planning and investment in self-consumption and export services, while also addressing equity concerns related to the potential cross-subsidisation between CER customers and non-CER customers.

Specifically, it is essential to establish a pricing framework that supports the continued development and effective integration of CER, ensuring that the infrastructure can accommodate their increasing participation in the market. At the same time, the framework must ensure that non-CER customers are not unfairly burdened by the costs associated with the use of the distribution network by CER customers, such as the export of excess energy to the grid. This requires a careful balancing act: enabling CER customers to benefit from their investments in renewable energy technologies and export services, while also protecting the interests of non-CER customers who might otherwise bear disproportionate costs for network usage that benefits a smaller subset of consumers. A fair and transparent pricing structure, alongside a forward-looking approach to network planning, is critical in addressing these issues, ensuring both market efficiency and equitable outcomes for all consumers.

Another important aspect of pricing is to assign the appropriate risks to the appropriate market participants. This ensures the right market participant is encouraged to manage the risk in the most cost-effective way.

In a traditional tariff structure, risks are often shared across all consumers, with network costs being distributed based on fixed or volumetric charges. This can result in inefficiencies and a lack of transparency in how costs are allocated. In contrast, distribution wholesale tariffs levied at the retailer/aggregator level, can assist to more precisely align costs with the underlying usage patterns and risk exposure of the retailer/aggregator consumer base. This can incentivise the retailer/aggregator to develop products and services that better manage their risks.

Economic Regulation and Ring-Fencing Guidelines

Effective network economic regulation is crucial to ensure that network operators can compete fairly in the contestable market, promoting a level playing field that prevents cross-subsidisation and protects consumers from potential harm. This involves establishing clear regulatory frameworks that prevent

[2] powering-homes-empowering-people-cer-roadmap.pdf

network businesses from using their market position to gain an unfair advantage in competitive sectors, such as distributed renewable generation and energy storage or other ancillary services

A topic that the CEC considers should be within the scope of this Review, related to the role of the distribution networks, is whether there should be any class waivers changing the current assumptions on network ownership of asset types.

As the CEC flagged in our response to the AEMC on the Draft TOR, there has been a recent trend in distribution network service providers being granted limited ring-fencing waivers for specific projects. This began in 2023, with the AER granting a final class ring-fencing waiver to allow distribution businesses to apply for funding under the Commonwealth Government's Community Batteries for Household Solar Program[3]. This led to many distribution businesses successfully tendering for their own community batteries under both the Commonwealth Government and Australian Renewable Energy Agency (ARENA) funding programs.

More recently the Energy Networks Australia "The Time Is Now" report[4] introduces a suggestion for a near-complete class waiver to allow DNSPs to own larger distribution connected bidirectional units (BDUs) (30 – 50MW). While the report notes this capacity would be shared with third parties, it also notes that "generation capacity can be connected more quickly by DNSPs… as DNSPs can unlock sub-transmission capacity at minimal cost".

Since this report has been released, and since our response to the AEMC on the draft TOR the following things have also happened:

- The New South Wales (NSW) Government released their "NSW Consumer Energy Strategy" with an action to "investigate seeking a regulatory class waiver from the AER to enable NSW distribution networks to support the uptake of local network batteries" as well as one to "Investigate opportunities to facilitate the delivery of kerbside EV charging infrastructure by Distribution Network Service Providers where appropriate."[5]
- Ausgrid has pitched two 200MW/ 400MWh utility scale batteries to be built in NSW.[6]
- Further work looking into distribution business owned kerbside EV charging infrastructure has been done.

The CEC has concerns with the way in which these ring-fencing waivers are being granted without a broader strategic consideration of the role of network ownership. We believe that this broader strategic review should sit within the scope of this work undertaken by the AEMC, but with close alignment and collaboration on the parallel work being done on the distribution system operator (DSO) work being undertaken under the remit of the federal CER Roadmap.

For the purposes of this AEMC review, we would recommend specifically considering:

- A thorough review of the roles and responsibilities of distribution businesses when it comes to owning any form of distributed energy resources (DER) or utility scale assets connected to the distribution level. This should include a review into non-network solutions.

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[3] AER grants class ring-fencing waiver to allow distribution businesses to apply for funding under the Commonwealth Government's Community WBatteries for Household Solar Program | Australian Energy Regulator (AER)
[4] Leveraging the Distribution Grid in support of the Energy Transition (energynetworks.com.au)
[5] NSW Consumer Energy Strategy | Powering our people and communities
[6] Ausgrid pitches its first big batteries for Newcastle and Sydney | RenewEconomy

- A cost-benefit consideration of network-owned vs non-network owned DER. The recently released “Community Battery Market Snapshot Report” from ARENA, for instance, highlights that network-owned community storage is the most expensive form of storage in market.[7]
    - This cost benefit analysis should explicitly consider consumer bill impacts. DNSPs are regulated monopolies, and any ownership of DER will naturally impact on consumer pricing – both through changing their regulated asset base, and by distorting market competition.
- The current ring-fencing arrangements and any efficient investment practices that are impacted by those arrangements.
- Whether the tariff reforms undertaken by this work program, as well as the streamlining connection reforms separately being undertaken by the Department of Climate Change, Energy, the Environment and Water (DCCEEW)[8] are sufficient to unlock private sector investment, or whether additional reforms are needed. This will also relate to the points on tariff treatment for larger distribution connected batteries considered below.

We also suggest that the AEMC works closely with the AER and state governments during the review process to avoid any individual ring-fencing waivers being granted while this analysis is being undertaken. Any changes to the accepted ring-fencing principles are a significant market shift and need to be given detailed consideration.

If a larger class-waiver was granted for all distribution connected BDUs, it would represent a significant shift in the market with flow-on consumer cost implications. We recommend that a review of any future changes to ring-fencing arrangements is considered within the scope of this AEMC review.

Flexible Export Services

The CEC also recommends that flexible export services arrangements set by distribution businesses are designed and implemented in a holistic manner, and specifically, align with the principles outlined in the "dispatch mode" under the AEMC “*Integrating Price Responsive Resources in the NEM”* Rule Change. Rather than restricting the operation of price-responsive resources, DNSPs should facilitate their integration into the grid, ensuring that these resources can respond dynamically to market signals.

This approach will enable more efficient use of the network, improve system reliability, and support the integration of renewable energy sources. By fostering flexibility in exports, distribution businesses can help unlock the full potential of price-responsive resources and associated services/revenue opportunities for consumers. Further, it will also contribute to a more resilient, efficient, and consumer-focused energy system.

Tariff Treatment for Larger Distribution Connected Batteries

In our response to the AEMC draft TOR, the CEC noted that the tariff treatment of larger distribution and sub-transmission connected battery storage systems (specifically scheduled bi-directional units), needs to be considered as a matter of priority. The Consultation Paper explicitly captures utility scale storage assets, which the CEC is appreciative of. We also recognise that the AEMC is focused on using this review to create a longer-term strategy.

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[7] Community Battery Market Snapshot Report - Australian Renewable Energy Agency (ARENA)
[8] Streamlining network connection processes for consumer energy resources (CER) and electric vehicle supply equipment (EVSE) - Climate

The CEC believes that resolving tariff structures and considering distribution use of system (DUOS) exemptions for >5MW storage assets connected to the high voltage (HV) distribution and sub-transmission networks is a priority that needs to be resolved within the next few years to achieve the level of storage capacity we need to achieve AEMO's 2030 projections.

As the CEC noted in our response to the draft TOR, this is a topic that has been an ongoing concern of the industry for several years, with CEC members highlighting that the current distribution network tariff structure would make distribution connected batteries uneconomic as far back as the original *"Integrating Energy Storage Systems"* Initiation Paper. We believe the best way to resolve this issue is likely through a separate Rule Change process that considers an expansion of the current treatment for transmission connected assets (in respect of network charges) to distribution and sub-transmission connected assets.

While the CEC understands that consideration of transmission, and subsequently transmission connected assets, are out of scope of the Review, we do think that consistency in treatment of the same asset class is a fundamental principle within the NEM. Ensuring that distribution connected BDUs can respond to the same market signals and the Australian Energy Market Operator's (AEMO) directions, as transmission connected BDUs, without punitive tariff arrangements will be critical in achieving the storage build out needs projected by AEMO. This is particularly critical for scheduled BDUs who will be responding to the same AEMO NEM Dispatch Engine (NEMDE) signals regardless of whether they are connected at the transmission or sub-transmission level.

The CEC summary of concerns related to the issue was included in our response to the Draft TOR and is reiterated below:

- Privately owned BDUs connecting to the distribution network are primarily offered the same tariff structures as any other large commercial loads – which have features such as peak demand charges, peak export charges, capacity charges, net consumption charges and other features specifically designed for end users.

- This effectively ignores the bi-directional nature of these assets, and the fact that they are not consuming energy. It leads to a double application of all consumption costs because BDU owners are paying for each kWh stored, with the same consumption costs then also applied to the ultimate end-use customer following discharge.

- The charges also effectively ignore the operational flexibility of BDUs assets when compared with traditional commercial loads:

    - Bi-directional assets (>5MW) are required to be registered as scheduled BDUs. These assets participated in the wholesale markets and require sub-second bi-directional ramp flexibility, dispatched and constrained by NEMDE. They also actively provide contingency and/ or regulation frequency control ancillary services (FCAS). Consumption costs are applied to all kWh used to charge regardless of the service provided or the direction given by AEMO.

    - Applying consumption charges particularly disincentives BDUs (both scheduled and unscheduled) providing lower frequency services. It also disincentivises BDUs from providing system integrity services such as system integrity protection

scheme (SIPS) and wide area protection scheme (WAPS) services – both of which have charging components to maintain grid security[9].

- Non-scheduled BDUs (<5MW) – which include most neighbourhood batteries - are still most likely to be responding in a similar way to scheduled BDUs – dispatched in response to high energy market prices, reflecting market need. Though not scheduled through NEMDE, non-scheduled BDUs still provide a greater market benefit when able to provide sub-second response to market needs – rather than operating within fixed time-of-use (or similar) tariff bands designed for loads.

- Tariff structures are also opaque and bi-laterally negotiated between DNSP <> Developer; and apply over timeframes that are untenable for investment certainty.

The CEC believes it is important that the scope of the TOR considers the tariff cost structures applied to all distribution connected BDUs – not just neighbourhood batteries. The same principles apply, and all tariff cost structures ultimately flow back through to the consumer. The recent "*Retailer reliability obligation exemption for scheduled bi-directional units"*[10] touches on several of the same principles and concerns as those highlighted above and provides precedence for a more nuanced treatment of bi-directional units.

How should the role of energy supply businesses evolve to meet customer and energy system needs in the future?

What changes might be required in the future to the interfaces between different energy supply businesses?

The CEC believes that for the most part customer electricity consumption is relatively inelastic. Many consumers will use energy at a time that is most convenient to them. The CEC thinks it is unlikely that this will change over the next decade, so our focus for this review is on:

- Ensuring continued work is done on orchestration to enable CER to behave in a certain way without a customer needing to physically or actively change their own behaviour.
- Ensuring that work continues on the most effective energy mix for lowest cost energy bills. Ultimately most customers want the cheapest electricity that is reasonably available. Tariffs are a relevant factor, but a low-cost generation mix will also inform customer bills.

We anticipate that customers will continue to invest in CER and will electrify their homes when they need to replace old appliances, or it makes financial sense for them to do so.

We broadly agree with the customer archetypes presented by the AEMC and do not necessarily see significant shifts in the types of customers that will exist in 2035

[9] Note that these points were also considered in the RRO Rule Change request lodged by Tesla, Neoen and Iberdrola (available at - New rule change proposal - Neoen Austral~ reliability obligation exemptions for scheduled bidirectional units - 20240408.pdf (aemc.gov.au)). The same principles on applying costs to charge are relevant for both RRO liabilities and consumption tariff arrangements.

[10] Retailer reliability obligation exemption for scheduled bi-directional units | AEMC

Do you have any feedback on our proposed assessment criteria?

The CEC broadly supports the assessment criteria.

However, as outlined in our submission, we believe that several additional criteria will be critical in evaluating the final package of reforms. One such criterion is the alignment with broader policy objectives and how these objectives can influence consumer behaviour, particularly with respect to the adoption and utilisation of CER. Historical evidence, such as the significant impact of the Small-scale Renewable Energy Scheme (SRES) on the widespread uptake of rooftop solar, demonstrates the effectiveness of well-designed policy initiatives in driving consumer participation. Therefore, we believe it is essential to consider how future policy reforms can encourage greater consumer engagement and potentially impacted by future pricing arrangements.

Another important consideration is the design of market arrangements that foster competitive outcomes. A competitive market structure is fundamental in driving innovation and expanding consumer choice. By promoting competition, we create an environment where new products, services, and technologies can flourish, ultimately benefiting consumers through enhanced offerings and lower prices. Competitive markets are more likely to stimulate the development of innovative solutions that meet diverse consumer needs, while also ensuring that consumers have the flexibility to choose the products and services that best suit their preferences.

Thus, it is crucial that the reform package includes measures that support market competition and incentivises the entry of new entrants, encouraging the ongoing evolution of the energy market in ways that benefit consumers.