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Draft Terms of Reference: Electricity Pricing for a Consumer-Driven Future – EPR0097

Essential Energy appreciates the opportunity to submit feedback to the Australian Energy Market Commission (the Commission) on its *Draft Terms of Reference for Electricity Pricing for a Consumer-Driven Future* (the draft Terms of Reference).

Essential Energy manages over 183,000 km of powerlines, covering 95% of New South Wales and parts of southern Queensland, serving more than 890,000 customers, including homes, hospitals, schools, businesses, and community services. Essential Energy has made significant progress in connecting a substantial number of Consumer Energy Resources (CER), particularly solar photovoltaic systems, to its distribution network. As of the end of April 2024, there were 289,363 solar connections to Essential Energy's network, with a total panel capacity of 2,042 MW, which represents almost a third of total Essential Energy connections having CER in some form.

Essential Energy supports the principles underpinning the review on *Electricity Pricing for a Consumer-Driven Future* and its draft Terms of Reference and we look forward to a broad review which will make substantive reform recommendations that bring greater pricing certainty for electricity customers.

Successful integration benefits all consumers including those without CER

Essential Energy recognises the necessity of a consumer-driven pricing review to facilitate CER uptake through new market offers and supportive tariff structures that encourage equity, including for low-income households and those without CER. As the DNSP for regional and rural NSW, Essential Energy supports initiatives that promote fair competition and address gaps in services often experienced by customers outside of metropolitan centres.

One of Essential Energy's core pillars is to enhance the utility of CER for the benefit of all network connected customers Ultimately, smart management of CER lowers costs across the entire network by deferring augmentation for peak events, which delivers value to all connected customers.

Essential Energy continues to explore innovative ways to make CER cost-reflective through small customer tariff trials and investing in Dynamic Operating Envelopes (DOEs), which provide flexible export limits based on real-time network capacity. This integration supports renewable energy targets and enhances grid resilience and reliability. Essential Energy has conducted several tariff trials, leveraging both CER and non-CER customers, to influence consumer behaviour and adjust pricing structures. These efforts have enabled new market offers and tariff structures that align with our pricing principles.

Equivalent treatment across transmission and distribution pricing frameworks should be a desired outcome of the review

Whilst broadly supportive of the draft Terms of Reference to support an increasing CER driven market, Essential Energy is concerned that the review is not seeking to address transmission network pricing issues and its subsequent downstream impact to customers, generators, and distribution networks.

Whilst Essential Energy is committed to the smart management of CER, the energy transition in Australia requires an integrated approach that leverages both transmission and distribution networks to host medium-sized generation and storage. Essential Energy's distribution network has significant latent and currently underutilised hosting capacity. The underutilised hosting capacity within distribution networks represents a valuable resource that, if effectively leveraged, can significantly contribute to the energy transition and derive more value out of the network.

Despite this potential, significant differences in pricing frameworks exist between transmission and distribution where the current framework requires charges and passed through costs be applied to customers connected at the distribution level which are not incurred by transmission level connected customers.

Specifically, Rule, cl 6.18.5(e) of the National Electricity Rules requires that:

> *"Each tariff must be based on the long run marginal cost of providing the service to which it relates..."*

Therefore, DNSPs must estimate the long run marginal cost and apply their tariffs accordingly.

However, this approach contrasts sharply with the treatment of generators and batteries connecting directly to the transmission network, where connection charges only related to the cost of their immediate connection to the transmission system. Therefore, a standalone battery or hybrid connecting to the transmission network may negotiate to avoid the Transmission Use of System (TUOS) charges. In practice, almost all generators connecting to a TNSP operate under this arrangement, significantly reducing their cost liabilities over the life of their generation asset. The revenue derived by regulated transmission networks from these connections is additional to their revenue cap determination.

In contrast, a battery or hybrid connecting to the distribution network incurs both Distribution Use of System (DUOS) and TUOS charges. Additionally, jurisdictional scheme costs are recovered for sanctioned schemes and are applied at the distribution level, allowing customers connecting at the transmission level to circumvent these charges. Jurisdictional costs are forecast to make up a substantial and growing percentage of customers' bills over the coming decade.

The outcome of the disparity in pricing regimes that exists between the transmission and distribution levels, is that many generators, and in particular batteries, chose to bypass prime technical locations for connections at the distribution level, because of regulatory incentives to connect at the transmission level. This distortion has been generally acknowledged in other recent reviews including:

> *"To ensure that the race for batteries does not end up with inefficient location of storage assets on the grid, it is important to maintain competitive neutrality between distribution and transmission connected assets."*[1]

> *"With respect to transmission and distribution: Regulators need to pay increasing attention to non-discrimination in regulatory treatment between transmission and distribution. This is*

[1] Argyle Consulting and Endgame Economics, "Network Tariffs for the Distributed Energy Future," Final Paper for the Australian Energy Regulator, June 2022, p. 23

because of the potential for distortion in meeting net zero between large transmission connected assets and distributed assets."[2]

In our view the equivalent treatment across transmission and distribution pricing frameworks should be a desired outcome and as such should be explicitly reflected in the draft Terms of Reference as part of the Commission's review. If it is ignored, there will continue to be downstream implications for consumers, generators, and the broader energy market where inefficiency in the use of the distribution network will lead to higher costs for consumers and underutilisation of regulated assets.

Offering consumers the right products and services

In addition to specific views on the draft Terms of Reference itself above, Essential Energy suggests the Commission focus on the following areas to inform the review, including:

- Assessing the need for greater flexibility in the Tariff Structure Statement process to allow distribution networks to manage uncertainty, technology developments and changing customer needs within a regulatory period
- Seeking input from residential customers who have adopted CER to better understand their choices and preferences including the feasibility of more predictable and simple retail products such as those used by other utilities such as telecommunications
- Exploring advanced billing solutions that go beyond traditional metering points including asset-level billing and flexible demand management that can provide more accurate and responsive pricing structures, reflecting the real-time capabilities of modern appliances and energy systems
- Understanding of the relatively low uptake and high churn rates for Virtual Power Plants (VPPs) to be able to address issues consumers have with these models
- Aligning market outcomes with technical capabilities that uses consumer data and an open-source approach to understanding the feasibility and efficiency of proposed solutions.
- Incentivising energy optimisation behind the meter and flexible demand management can significantly enhance the efficiency and resilience of the electricity grid.

Conclusion

Essential Energy is committed to engaging in any reforms that serve the long-term interests of consumers, and we look forward to contributing to the next stage of consultation. To this end, the draft Terms of Reference proposes forming a Stakeholder Reference Group. Essential Energy would welcome the opportunity to be involved in the Stakeholder Reference Group for the purposes of the Review.

If you have any questions in relation to this submission, please contact Anders Sangkuhl, Regulatory Strategy Manager via anders.sangkuhl@essentialenergy.com.au or via phone 0409 968 326.

Yours sincerely,

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[2] Pollitt, M., Covatariu, A., and Duma, D., "Towards a More Dynamic Regulation for Energy Networks," Centre on Regulation in Europe (CERRE), 2024, p. 12.