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AER Resets
Australian Energy Regulator
By email: AERresets2024-29@aer.gov.au

Dear Colleagues

SUBMISSION ON ENDEAVOUR ENERGY'S REVISED PROPOSAL 2024-2029

On 30 November 2023 Endeavour Energy submitted its revised proposal for the 2024-29 regulatory control period. This is a submission on Endeavour Energy's revised network tariff proposal.

Endeavour Energy is proposing the introduction of a new tariff for embedded networks. In response to the AER's Draft Decision, Endeavour Energy states that it has revised the proposed tariff to recognise the potential for savings from the connection of embedded networks. Endeavour Energy has not provided sufficient evidence that embedded networks should be distinguished from other large customers.

Pricing Principles

The network pricing objective focuses on the efficient costs of the provision of services to the retail customer. The network pricing objective requires a consideration of Endeavour Energy's total efficient costs of serving the retail customers that are assigned to the relevant tariff, clause 6.18.5 of the National Electricity Rules (NER).

In formulating provisions of a distribution determination regarding assignment and re-assignment of customers to tariff classes, the AER must have regard to the principles set out in clause 6.18.4 of the NER, including the nature and extent of the customer's usage or intended usage of the distribution services, the nature of the connection, and relevant metering. Retail customers with similar connection and distribution service usage profiles should be treated on an **equal** basis.

In section 4.4 of Endeavour Energy's Tariff Structure Explanatory Statement, Endeavour Energy contends that the aggregation of customers within an embedded network results in an inequitable outcome under clauses 6.18.3(d) and 6.18.4(2) of the NER. Clause 6.18.3(d) requires that retail customers are grouped in an economically efficient basis without unnecessary transactional costs. Clause 6.18.4(2) requires equality in the application of tariffs between customers with similar connection and distribution service usage profiles. It would be misguided to compare the contribution of small customers to those of large customers on the basis that those large customers consist of a large number of occupants. Embedded networks are single customers. They have a single connection point and do they not have the same usage profile of an aggregated number of individually connected small customers.

Endeavour Energy's proposal has not shown that embedded networks are not 'similar' in their connection and distribution service usage profiles to comparable large customers. Endeavour Energy

has focused on its perception that there is unfairness resulting from there being multiple individual consumers within an embedded network and the alternative being that those individuals were each connected to its network. This is no less unreasonable than asking the AER to consider the number of occupants within a residential premises in the development of a new tariff class. The level of occupancy of a building is not a relevant consideration under the pricing objectives.

Renewable energy generation and consumption

Embedded networks can significantly benefit consumers and the wider distribution network via load aggregation and demand reduction.¹ It is well recognised that embedded networks can enable access to renewable generation and other technologies for residents of multistorey apartment blocks (that would otherwise not be possible).

Embedded networks enable renewable energy generation and consumption. The NSW Committee on Law and Safety recently found that embedded networks can future proof developments by facilitating greater access than grid-connected developments to renewable energy and storage and innovative technology, including EV charging. And, further, that they can increase energy efficiency and have decarbonisation benefits, including through increasing access to renewable energy and storage and using excess energy generated across multiple consumers.²

Should Endeavour Energy's proposal be accepted, there will be significantly fewer embedded networks developed and as a result there will be significantly less embedded renewable generation. This outcome would be inconsistent with the NEO.

Avoided Costs?

We re-assert that independent modelling is required to determine whether embedded networks result in additional costs and any avoided costs i.e. what their actual impact is on the network when compared to other large customers. While Endeavour Energy has recognised that there are benefits, it has not sufficiently quantified those benefits.

Endeavour Energy notes that '*There are a range of network benefits – and so network tariff savings – that can be obtained by an embedded network, in comparison to directly connected customers. Some of these savings reflect the lower costs imposed on the network by an embedded network while others result from taking advantage of our current tariff design, as presented in Table 5.*'³ Endeavour Energy recognises that a potential benefit of an embedded network is that '*coincident maximum demand of the aggregate embedded network is lower than the sum of maximum demand for each connection. This results in a lower demand-based charge for the embedded network.*'

Endeavour Energy goes on to state that '*we have used the AER's opex model to calculate the reduction in opex that results when circuit line length growth is curtailed by the formation of an average embedded network.*' That methodology is unreasonable in this context. Embedded network savings are not accurately reflected by a reduction in 'circuit line length.' It is clear that costs are

¹ Roberts, M., Bruce, A., & Macgill, I. (2018). Collective prosumerism: Accessing the potential of embedded networks to increase the deployment of distributed generation on Australian apartment buildings. 2018 IEEE International Energy Conference (ENERGYCON), 1-6. <https://doi.org/10.1109/ENERGYCON.2018.8398770>.

² NSW Committee on Law and Safety Report on Embedded Networks in NSW para 2.162 (see <https://www.parliament.nsw.gov.au/ladocs/inquiries/2873/Report%20-%20Embedded%20Networks%20in%20New%20South%20Wales.pdf>)

³ Endeavour Energy Tariff Structure Explanatory Statement, page 48

avoided by Endeavour Energy in having an embedded network operator being responsible for wiring between the gate meter and the individual child meters. It is also clear that wiring to a connection point has a different cost potential than wiring between poles. This is because such wiring is subject to different vegetation considerations and risks. Savings are also found elsewhere. For example, distribution businesses are not required to advise individual consumers of various matters (such as planned outages) as they have that responsibility to a single customer (the embedded network operator).

The take up of centralised energy storage within embedded networks is likely to continue to increase. Such shared storage would not be possible without embedded networks (other than in relation to community batteries). Independent analysis has demonstrated that embedded networks can result in a significant reduction in their reliance on the distribution network and can result in reduced peak demand. Apartment buildings with solar PV and onsite energy storage can increase solar self-consumption by up to 19% and building self-sufficiency by up to 12%, potentially reducing overall building peak demand by up to 30%.⁴

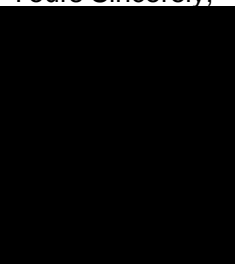
Analysis, that should be conducted by an independent party, needs to consider more than line length when determining the costs of and saved by embedded networks.

Law reform is needed.

There is uniform agreement that the regulatory framework for embedded network needs to change to ensure an appropriate level of consumer protection.

Reviews into the regulatory framework are currently being conducted by the AER and by IPART in NSW. Those reviews are the appropriate forum for consideration of changes that may reduce the number of embedded networks or regulate the price that consumers can be charged. A pricing proposal is not an appropriate method of addressing a perceived inequity, particularly when it will simply shift potential savings for embedded network consumers into approved revenue for distribution businesses.

Yours Sincerely,



⁴ Roberts, M., Bruce, A., & Macgill, I. (2019). Impact of shared battery energy storage systems on photovoltaic self-consumption and electricity bills in apartment buildings. *Applied Energy*. <https://doi.org/10.1016/J.APENERGY.2019.04.001>