AER Review of Embedded Networks

Presentation to the Stakeholder Information Session

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The Energy Project

- Energy consultants providing independent advice to businesses and governments.
- Most of our Property Sector clients have Embedded Networks - we set up compliance programs and help our clients keep their service providers accountable.
    - Clients have around 10,000 small business and residential customers across the NEM
- We also help our clients navigate the markets for solar, batteries, EV charging, Virtual Power Plants – writing specifications, running tenders, evaluating proposals and acting as owner's engineer during installation and commissioning

- We have seen positive outcomes for customers in Embedded Networks – Landlords using them to attract and retain tenants and residents
- We have also seen examples of poor outcomes – Landlords using threats of disconnection to win a tenancy dispute
- This presentation focuses on the positives

How can Embedded Networks benefit consumers?

- National Energy Objectives: efficiency **and** emissions reduction (www.aemc.gov.au/regulation/neo)
- Embedded Networks provide shared infrastructure and enable higher **utilisation** than individual connections – lowering average 'cost to serve'
- https://energyconsumersaustralia.com.au/news/electricity-distribution-network-utilisation-why-its-important-to-consumers-and-why-we-need-to-update-how-we-measure-it
- We have clients with R3 (Retirement Living) and R4 (Land-lease communities). These operate under **tenancy legislation** that deliver much better pricing outcomes.
    - A Retirement Living client has villages that operate "community energy schemes" - cost recovery basis where residents are involved in setting prices and use any over recovery to offset the cost of electricity for "common areas".
    - The contracted Embedded Network Manager reads the meters, manages payment plans, answers questions, organises concessions and has customer service tailored to this demographic.
    - Land-lease communities in NSW and QLD operate under tenancy legislation that ensures customers pay the same price as the Operator at the Parent Meter: large-market rates and well below the DMO
- Embedded Networks enable Net Zero for electricity by sharing solar, community-scale batteries and EV charging at lower cost than individuals can achieve. All orchestrated to maximise the on-site use of solar, avoid the grid at peak times, stay within Maximum Demand constraints and buy 100% GreenPower for the rest
- At scale and with good governance, households connected to these networks **can** get good outcomes (arguably better than having to regularly engage in the retail market to get a 'competitive' price)

The National Energy Retail Objective (NERO)

The National Energy Retail Objective as stated in the National Energy Retail Law (NERL) is:

"to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to:

a. price, quality, safety, reliability and security of supply of energy; and
b. the achievement of targets set by a participating jurisdiction—
    i. for reducing Australia's greenhouse gas emissions; or
    ii. that are likely to contribute to reducing Australia's greenhouse gas emissions."

The Exemption Framework is only one piece of the puzzle

- Embedded Networks in Apartments can be hard to avoid
- What's possible is at the discretion of DNSPs and Metering Providers – **Recommend** the AER engage with them and Building Services consultants
- EV charging infrastructure (and load management systems) add a new dimension
- IPART's proposed price cap and the TSS proposals from Ausgrid and Endeavour to charge bespoke Network Tariffs to Embedded Networks are also relevant

- One person's Embedded Network is another person's community microgrid

Stakeholder questions

7) How do embedded networks result in lower energy prices for residential customers? Please provide supporting information.

8) How do infrastructure costs for new developments built as embedded networks compare to non-embedded networks?

9) How do higher-density complexes configured as embedded networks benefit residential buyers? Please provide supporting information.

10) What kind of innovative and emissions reduction arrangements can embedded networks offer residential customers?

11) What other benefits are there for residential embedded network customers?

12) How should we consider any consequential benefits such as improved access to affordable housing in this review?

Thank You

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