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Australian Energy Regulator
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To whom it may concern

Review of AER exemptions framework for embedded networks

1. Introduction

Energy Locals Pty Ltd (ACN 606 408 879) and its related entity, Energy Trade Pty Ltd (ACN 165 688 568) (**Energy Locals**) welcomes the opportunity to provide a submission to the Australian Energy Regulator (**AER**) in relation to its review of the AER exemptions framework for embedded networks (**ENs**).

Energy Locals acknowledges that, following the rapid growth of the EN industry, the current regulatory framework for ENs would benefit from review. Through this submission, Energy Locals aims to emphasise the importance of targeted and relevant measures to ensure that the benefits of ENs can be recognised by customers and the community to the fullest extent without impacting opportunity for growth and innovation.

This submission will provide:

- an overview of the benefits of ENs;
- an overview of potential harms of ENs as they currently operate while also debunking a number of myths associated with ENs; and
- feedback on the current legal framework regulating ENs and on AER's proposed options for amending the Network and Retail Exemption Guidelines.

a) Overview of Energy Locals

Energy Locals specialises in energy procurement and management, energy generation and the provision of energy efficient technologies for residential, commercial, and industrial projects. We have extensive expertise in the management and implementation of ENs, which include electricity, gas, hot water, solar PV, electric vehicle charging, battery storage and telecommunications.

The Energy Locals Group are subsidiaries of a Quinbrook Infrastructure Partners (**Quinbrook**)

managed fund. Quinbrook is an ESG-focused, 'value-add' global investment manager with a specialist focus on low carbon, renewable energy supply and related assets and business and has invested more than US$2.5 billion in over 200 low carbon, renewable, storage and grid-supply projects across the UK, USA, and Australia.

b) Our business structure

Energy Trade Pty Ltd procures, installs, and operates embedded networks for a variety of clients, including many owners of hi-rise apartment and mixed-use dwellings. While Energy Trade applies for the NR2 network exemption for all of the sites it supports, it does not apply for retail exemptions. Instead, it appoints Energy Locals Pty Ltd as authorised retailer for each of its sites to ensure that customers living in our embedded networks enjoy all of the same protections as our on-market customers. Additionally, we utilise all of the same well-established internal controls and reporting systems.

Unfortunately, this approach does not appear to be commonplace in the industry with many EN service providers operating under both network and retail exemptions. We cannot think of any reason for this other than those parties hoping to avoid additional compliance and reporting obligations or any risk to their retail authorisation due to breach of such.

2. Benefits of embedded networks

There is no doubt that ENs offer numerous advantages to energy customers, building owners and developers and society as a whole. From reducing energy expenses and providing access to renewable generation to fostering innovation in energy services, these networks present a range of benefits. Additionally, they help lower building costs and align with the National Energy Objectives (**NEO**). We have provided further details on these benefits below.

a) Reduced costs for occupants and owners

ENs can contribute to reduced costs for occupants and owners in several ways:

i) Efficiency in distribution

ENs optimise energy distribution within a confined area, reducing transmission and distribution losses that occur in large-scale grid systems. This efficiency leads to cost savings that can be passed on to consumers.

ii) Access to renewable energy

ENs can facilitate easier access to renewable energy sources like solar power. By integrating local renewable energy generation into the network, consumers may benefit from lower-cost sustainable energy compared to traditional grid-supplied electricity.

iii) Competition and innovation

Despite common misconceptions, there is significant competition between EN service providers, which can drive innovation and efficiency, resulting in competitive pricing and improved services for consumers. We have elaborated on this further in Part 3 below.

iv) Cost sharing for infrastructure

The shared nature of ENs allows for cost-sharing among consumers for infrastructure such as metering, maintenance, and upgrades. This spreads out the expenses, and in many cases leads to reduced individual consumer costs.

For example, an individual hot water system costs on average $1,300-$1,500 per resident. Under an EN model, the individual does not pay an up front cost for the hot water system, instead paying a usage cost which includes maintenance and eventual replacement of the system.

v) Common property savings

Many ENs provide savings to the owners' corporation (**OC**), which could be in the form of annual rebates, reduced electricity purchasing costs or rooftop rental income for solar systems. These savings can in turn reduce the levies required to be paid by owners in the building.

vi) Equipment savings

Many apartment buildings are required to maintain centralised hot water plant(s) for use of the occupants. EN operators generally maintain and replace equipment at the end of the equipment's useful life. This reduces the burden on the OC sinking fund and subsequently, the cost to residents.

b) Access to renewable energy and innovative energy services

ENs play a pivotal role in fostering innovation and increasing access to renewable energy sources in a number of different ways:

i) Renewable energy integration

By incorporating local renewable energy sources such as solar panels, ENs provide consumers direct access to clean energy. This allows consumers to reduce their reliance on fossil fuel-based grid electricity, promoting sustainability and lowering energy costs.

Some ENs operate as microgrids, allowing residential customers to be part of a localised energy system. Microgrids often incorporate renewable energy sources and battery storage, enabling residents to reduce reliance on the larger grid, especially during peak times, and rely more on clean energy.

ii) Customised energy solutions

ENs often facilitate tailored energy solutions. EN clients can opt for services or infrastructure that align with their sustainability goals and might include options to exclusively source energy from renewables or participate in community renewable energy projects.

iii) Innovation in Energy Management

These networks often leverage advanced technologies like smart meters, IoT devices, and energy management systems. For example, ENs can implement demand response programs that incentivise residential customers to reduce their energy usage during peak periods. This empowers consumers to monitor and manage their energy usage more efficiently, potentially reducing waste and costs.

Many EN service providers also offer innovative energy efficient solutions to residential customers. This could include access to smart home technologies, energy-efficient

appliances, and personalised energy usage insights, helping residents optimise their energy consumption and lower emissions.

For example, Quinbrook has recently developed 'Quintrace', a digital platform which enables users to view their carbon footprint in real time and implement granular accounting standards for consumption and generation. Energy Locals intends to make this resource available to our EN customers where applicable.

The growth of ENs in Australia also supports the rise of the virtual power plant (**VPP**), a virtual entity that connects decentralised energy sources through a digital platform that coordinates and optimises the output of the individual systems to a form a collective power plant. The future of VPPs in the Australian energy market looks very promising with the potential to help significantly reduce dependency on fossil fuels, lower greenhouse gas emissions, and provide for a more sustainable future.

iv) Access to renewable energy

Residential customers in apartments buildings often have little to no access to renewable energy assets. For example, they cannot make an individual choice to install solar PV on their rooftop. Many EN service providers procure and install distributed energy assets such as solar PV, battery storage and electric vehicle chargers in their buildings, providing this access to residents at no upfront cost. [redacted]

c) *Potential impacts external to the energy system – housing development*

i) Space saving

ENs play a crucial role in optimising space by utilising shared infrastructure opportunities. For example, shared supply pipework and hot water plant results in reduced build cost and saves space as it negates the requirement for individual electronic hot water systems. Individual systems require additional space, including in many cases space for gas meters, and specific airflow requirements in certain circumstances. Additionally, gas pressure available to the building may not be sufficient to run all individual hot water systems at maximum demand.

Centralised hot water plants also provide decarbonisation benefits by reducing the number of plants required to meet to demands of the sites. For example, if a residential building contains 110 individual lots, those 110 individual hot water systems could be replaced with 12 hot water burners, reducing the requirement for gas and emissions produced from the building.

Furthermore, when an EN operator installs roof top solar, the connection point is generally direct from the roof to the main switch board via a single supply line. This not only gives residents access to renewable energy but also reduces the burden on building infrastructure by reducing the requirement for multiple solar inverters and cabling on each solar installation.

ii) Contributing to infrastructure costs

The escalating cost of housing development has become a predominant factor contributing to the surge in property purchase prices and rental rates. As urban areas undergo rapid development, construction expenses, land acquisition costs, and regulatory requirements have all witnessed significant increases. These mounting financial pressures

are invariably passed on to homebuyers and tenants, translating into higher property purchase prices and escalating rental rates.

Contributions to developments by ENs can help relieve the pressure of infrastructure costs on property developers. As acknowledged by the AER in this review paper "developers may achieve cost savings if they can avoid the need to establish wires and other relevant infrastructure for the direct connection of each individual residence to the grid'.[1] It is clear that constructing higher-density apartment complexes as ENs on greenfield sites has the potential to decrease construction expenses and expedite the building process.

iii) Increased advocacy

For new developments, where there is no existing owners' corporation or residents during the crucial stages of infrastructure decisions by the developer, Energy Locals ensures that the infrastructure selected is suitable for the building and as efficient as possible. EN operators like Energy Locals are particularly inclined to install efficient infrastructure due to long-term relationships with building owners. This enduring connection serves as an incentive, encouraging us to prioritise sustainable and effective solutions, aligning with the long-term interests and satisfaction of both the building owners and the residents.

d) Consistency with the NEO

The NEO seeks to promote efficient investment in, and operation and use of, electricity services for the long-term interests of consumers with respect to price, quality, safety, reliability, and security of supply of electricity. The Australian Energy Market Commission (**AEMC**) states that successful application of the NEO "considers the prospects for having the right mix of resources, to produce the maximum amount for the minimum cost, over time. Such markets are characterised where there are no barriers to innovation, the exit of technology or the uptake of new technology and efficient long-term investment."[2] ENs contribute meaningfully towards this objective.

i) Efficient investment

ENs promote efficient investment in electricity infrastructure and services by investing significantly in assets for the distribution of electricity within their respective networks. These investments typically include the last mile infrastructure, DER such as solar PV systems, battery storage, electric vehicle chargers, and other energy-saving technologies. End-use customers are not well placed to build, own, operate and maintain such assets. Neither apartment occupants (especially renters) or commercial building tenants have strong incentives or capabilities to invest in onsite DER assets relative to specialised embedded network operators. DER operators also have strong incentives and ability to innovate. For example, Energy Locals is close to registering our own Virtual Power Plant comprising DER assets across our NSW embedded network sites. EV charging infrastructure (both for residents and potentially for public access at our embedded network sites) is another business model we are investigating. ENs operators have far lower barriers to innovate in these areas given they can achieve scale efficiencies across multiple sites and leverage combined infrastructure and bundled service models.

[1] Australian Energy Regulator, "*Review of the AER exemptions framework for embedded networks – November 2023*', p. 20
[2] AEMC*, Applying the energy market objectives,* 8 July 2019, p14.

ii) Operation and Use

ENs facilitate the efficient use of electricity services by managing the localised distribution of electricity within their network. This is achieved through demand management strategies and operation of DER assets which, in turn, promotes the use of renewable energy and reduces the overall demand on the Distribution Network Service Providers, thereby contributing to network efficiency.

e) Advising on sustainable infrastructure

When engaged by property developers early in the design process, we share our extensive expertise and experience to advise on appropriate infrastructure and advocate for consumer interests early on. This can lead to far better outcomes for consumers. For example, in some cases where hydraulic design is not properly considered by the developer, wait time for hot water in ENs can be over 2 minutes. When we are engaged in the design phases of a building, we review the hydraulic design to ensure that the length and volume of the pipe from the exit point of the circulating hot water system is kept to a minimum, keeping wait time for hot water under 30 seconds.

Considering the residents' short-term interests, we work to strike a balance between affordability (i.e., competitive energy prices), reliability and uninterrupted access to power along with user-friendly systems and clear billing practices.

When considering the long-term interests of the residents and the community in which the building is located, we look to implement energy-efficient technologies and renewable energy in the network that can lead to long term cost savings and reduced environmental impact. One example is the incorporation of smart electricity meters and hot water meters in our ENs, which provide residents with the ability to monitor their energy usage and make informed changes to this usage to reduce their cost of living. We also consider the ability to incorporate technological advances into the network in the future and design it with resilience in mind to ensure that is can withstand and recover from unforeseen challenges.

3. Potential harms of embedded networks

ENs have captured increasing attention recently due to their expansion, raising reasonable concerns about their impact on customer pricing and choice. While some concerns surrounding ENs might not hold true upon closer examination, there are genuine issues that demand scrutiny. We have elaborated on this further below with the intention to demonstrate that, with enhanced regulation and transparent practices, the benefits of ENs can be recognised while safeguarding the interests of consumers and maintaining fair pricing structures.

a) Lack of access to retail competition

Energy Locals acknowledges that, due to current market processes and restrictions, it is not simple for individual customers in ENs to switch retailers if they are unhappy with their supplier. However, it is incorrect to therefore assume that there is an absence of competition in the industry.

During the lifespan of an EN, there are multiple opportunities for counterparties to negotiate the best outcomes for residents in ENs. We have set out some examples of this below.

i) Negotiation of the Establishment Agreement

During the negotiation of the Establishment Agreement, property developers will often negotiate benefits for the OC and residents for the term of the Services Agreement. These can include:

[redacted]

ii) Negotiation of the Services Agreement

It is not guaranteed that just because we have been engaged to procure and install the EN, that we will be appointed to provide ongoing services to the OC or a build-to-rent operator under a Services Agreement.

By the time the development is complete, Energy Locals has usually invested significant capital, time, and resources in the site and is therefore incentivised to provide a favourable arrangement to OCs or build-to-rent operators under the Services Agreement. In addition to the benefits listed under Part A of this section, OCs or build-to-rent operators may also negotiate additional pricing discounts, service levels or even infrastructure contributions such as gifting electric vehicle chargers to sites for use by residents.

iii) Takeovers and retention

With the introduction of limits on the term of agreements with OCs for the supply of utilities, the embedded network industry has experienced a significant increase in site churn and therefore the need for strong retention strategies and competitive offers in the market.

[redacted]

Takeover opportunities typically arise when OCs identify a need for change in an EN service provider, typically driven by price or service-related issues. In these circumstances, OCs, and the residents that they represent, have access to significant competition in the market and, in some cases, this process has been so competitive that Energy Locals has had to forgo the opportunity.

Therefore, while it is not simple for individual customers in ENs to switch retailers if they are unhappy with their supplier, it is incorrect to claim that there is no competition in EN markets. Residents in these ENs are represented by property developers, OCs and build-to-rent operators who are incentivised to negotiate the best outcomes for their residents and are better placed to advocate on behalf of their residents as they have significantly more bargaining power as a collective.

b) High energy prices

The misconception of a lack of competition in EN leads into the belief that EN service providers can charge higher prices than those available to on-market customers.

On-market retailers may publicly display lower offers from time to time, however these offers are usually their acquisition proposition, designed to be competitive and attract new customers. In many instances, this offer may not accurately reflect the true underlying cost of the goods borne by the retailer, making it likely to be temporary. The Australian Competition and Consumer Commission (**ACCC**) analysis supports this suggesting that retailers recoup their costs over a customer's lifetime, by setting attractively low acquisition offers and making subsequent unilateral price increases over time.[3] For example, in 2023, 82% of residential customers were on calculated annual prices at or above the median offer on Energy Made Easy, which was a significant increase from 43% in 2022.[4] This suggests that retailers apply different pricing strategies to their existing customers compared to their acquisition offers.

Alternatively, Energy Locals currently has 282 electricity price plans, which cover a multitude of network regions as well as options for anytime, time of use and other network tariffs in most areas. [redacted]

One could argue that on-market customers have the ability to switch retailers once the 'acquisition offer pricing' expires, however the ACCC's analysis indicates that this is not what is happening in reality. For example, the ACCC found that 70% of customers in 2023 are on plans that they entered into prior to 2022 and approximately 64% of customers on these older plans are paying a calculated annual cost equal to or above the DMO, as opposed to 31% of customers on newer plans.[6]

Temporary acquisition offers and lack of participation by consumers in the market is likely the reason for the high number of customers on plans equal to or higher than the DMO. For example, the ACCC sampled flat rate plans for over 5 million existing residential customers on market retail contracts and found that, in August 2023:

- 47% of residential customers were on plans with a calculated annual cost equal to or higher than the DMO; and

[3] Australian Competition and Consumer Commission, *'Inquiry into the National Electricity Market – December 2023 Report'*, P. 9.
[4] Ibid, P. 68.
[5] [redacted]
[6] Ibid, P. 69-70.

- 42% of concession customers were on plans with a calculated annual cost equal to or higher than the DMO.

It may therefore be in the interests of residents in ENs to rely on their OCs or build-to-rent operators to advocate on their behalf, keeping on top of pricing and ensuring that customers pay a fair price.

The pricing for EN customers is anticipated to undergo additional fine-tuning as a result of the implementation of IPART's (Independent Pricing and Regulatory Tribunal) recommendations concerning maximum prices for hot water, gas, and electricity. The implementation of these recommendations is likely to lead to a more regulated and standardised pricing framework within ENs, ensuring a fair and transparent pricing structure for consumers.

c) *Limited consumer protections through limited compliance framework*

Energy Locals agrees that customers within ENs often face issues stemming from the absence of adequate protections in the Retail Exemption Guidelines. In addition, the limited regulatory oversight may result in disparities regarding pricing transparency, hardship and family violence support, and dispute resolution mechanisms, leading to potential exploitation or dissatisfaction among consumers.

We understand that a number of large EN service providers also hold authorisations under the NERL, however they still operate under retail exemptions to avoid being exposed to additional reporting and compliance obligations. If EN sellers were required to be authorised under the NERL, they would be subject to the compliance and performance reporting obligations set out in the NERL and enforced by the AER. We consider that this would greatly support compliance improvements and monitoring of the regulatory framework for ENs. We have elaborated on this in Part 5 below.

In addition, EN customers often find themselves in a disadvantaged position when it comes to government assistance and concessions. Customers in ENs do not have equal access to government assistance programs and concessions, which are often tailored to on-market setups. This leaves EN customers with limited options for financial relief or incentives and therefore, addressing this discrepancy is crucial to ensuring equitable access to essential services and promoting fair treatment for all customers.

4. Network Exemption Guideline

The AER presents some interesting options for increasing transparency around network exemption registrations. Energy Locals believes that an approach which considers a combination of the AER's proposals has the best chance of success.

The current process for registration as an exempt network under the Exemption Guidelines which requires the completion of a simple form and no formal approval process by AER, is user friendly. It does not create administrative burden on exemption holders or to the AER. We also recognise that the public register of network exemptions ensures transparency for the consumer.

Energy Locals does not hold any ND2 deemed network class exemptions and is therefore not in a position to provide significant comment on the proposal to close the ND2 network exemption class. However, as we have stated above, we do believe that the registration process for registrable

exemptions is straightforward, efficient, and effective and cannot imagine that it would lead to additional burden for currently deemed exempt operators.

a) Self-assessment

The benefit of requiring registration of all network exemptions is greater transparency and visibility for AER over the number of ENs. Energy Locals supports retaining the current registered exemption framework for NR2 exemptions while placing firmer obligations on EN service providers to self-assess and confirm that their networks are beneficial to customers and align with the NEO. Of these principles, Energy Locals considers the benefits to consumers to be paramount. This must be balanced with costs for exempt entities and the capacity of AER.

If the AER is to prescribe a list of specific EN customer benefits, the benefits outlined in Part two of our submission could be used. The self-assessment could also include requirements to demonstrate:

- what controls the exemption holder has in place to ensure consumers have access to competitive electricity pricing;
- the conditions included in the exemption holder's establishment and services agreements; and
- how ongoing compliance would be assured.

We note that the AER referenced Victoria's mandatory renewable energy target for ENs as an example of a clear benefit. Energy Locals considers that if AER were to adopt a similar renewable energy condition, then it should be implemented in the same way as in Victoria. In particular, the requirement that 5 per cent or more of the electricity sold to residential customers in a new EN be generated by onsite renewable energy facilities applies to retail activity and the remaining electricity be procured from renewable sources or off-set by the purchase of large-scale generation certificates. We note that this condition applies to holders of retail exemptions only and any decision the AER takes should be balanced with the pending IPART decision over price caps.

b) AER assessment

Energy Locals prefers the self-assessment option over the AER assessment of all NR2 registrable network class exemptions. While Energy Locals recognises the value in the proposed option to ensure that exemptions are only granted where consumer benefits are clear, we do have concern about the delays this may cause in practice. The number of current NR2 registrations (as shown in section 5, p16 of the Review Paper) demonstrates the significant task that AER may face in assessing all registrations.

Even if AER were to implement a modified assessment process, the requirement for assessment may still result in lengthy delays given the additional demands placed on the AER. While the current Network Guidelines permit a pre-registration where a network is under construction, depending on the extent of the assessment the six-month pre-registration may not be sufficient if there is a significant number of registrations for AER to progress.

Such anticipated delays may have implications on the construction industry and housing sector. As outlined above in Part 2, there are a number of parties involved in an EN being progressed at a site and a number of benefits for shared infrastructure. If a developer or OC considers that there will be too many delays, or uncertainty on timeframes given regulatory hurdles to navigate they may choose not to progress with an EN.

c) *Limiting future exemptions*

Energy Locals does not support the proposed option to close the NR2 registrable network exemption class to future registrations. As the AER has outlined, this class is where there has been the most significant growth for registrable network exemptions.

While Energy Locals recognises that additional consumer protections can (and should) be implemented (i.e., through self-assessment in option 2 or further reporting obligations), we consider that the continued growth in the ENs should be encouraged given the number of opportunities it presents for innovation and integration to renewable energy (see Part 2 of our submission).

d) *Additional options*

To reduce the administrative burden on all parties of performing an assessment for each network exemption application, one option that the AER may wish to consider is the creation of an overarching network exemption or authorisation which applies to all of the EN service provider's sites. An application for a broad network authorisation could follow the proposed self-assessment model. While it would require more work upfront, once the AER is satisfied that the EN service provider has appropriate controls in place they could be registered or authorised. Ongoing transparency over ENs could be maintained through reporting obligations on the number of sites under each authorisation/exemption.

This broad authorisation/exemption would likely alleviate the concerns around delays to housing development as outlined above in Part 4(b) above.

5. Retail Exemption Guideline

Energy Locals recognises the importance of improved transparency and visibility over ENs.

As Energy Locals is an authorised retailer, we report quarterly as well as timely reporting in the event of any breach. Energy Locals' position is that all EN sellers should be required to be authorised under the NERL to ensure that customers receive protections equivalent to those available to on-market customers. This would also ensure that EN sellers have the necessary organisational and technical capacity, as well as adequate financial resources, to operate as a retailer.

The ability of non-retailers such as individuals, owners' corporations, and unregulated entities, under a retail exemption, to provide retail services to customers may impact upon customer service levels as customers may not receive appropriately structured payment plans, complaint handling, emergency outage rectification or ombudsman protections as would be provided by a national energy market retailer.

If exemptions under the Retail Guideline are to continue, Energy Locals supports the introduction of additional reporting obligations for exempt sellers who on-sell under the relevant residential class exemptions. We recommend that EN sellers be subject to the same compliance and performance reporting obligations and consequences that are applicable to authorised retailers under the NERL. This would ensure that EN customers (including both residential and small business customers) will have appropriate protections such as the extension of life support, hardship, and family violence protections. Ongoing reporting should also enable the AER to better track the effectiveness of these protections and provide greater transparency into the embedded network industry.

6. Summary of Energy Locals' position

There are many benefits to ENs particularly in fostering innovation and increasing access to renewable energy sources. Given the benefits, the continued growth of ENs should be supported with appropriate regulatory oversight.

Energy Locals agrees that currently the consumer protections are limited, and these gaps are most notable in the Retail Exemption Guidelines. To ensure consumers are adequately protected, Energy Locals does not see the merit in allowing exempt retailers to continue to not be subject to reporting obligations.

For the Network Guidelines, Energy Locals considers that the registration process is appropriate to ensure transparency and customer protections. However, Energy Locals agrees that consumer protections are limited under the Retail Exemption Guidelines and urges the AER to consider limiting the ability for sellers of energy to operate without an appropriate license and ensure that customers can enjoy the same NERL protections as on-market customers.

We would like to take this opportunity to thank AER for the opportunity to provide this submission. We would be pleased to support AER's review as required and look forward to the release of the Draft Network Guideline and Draft Retail Guideline, and further consultation.

Yours faithfully,

Adrian Merrick

Chief Executive Officer

Energy Locals Pty Ltd