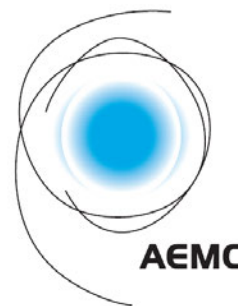


EMBEDDED NETWORKS IN NEW SOUTH WALES

Organisation: The Australian Energy Market Commission

Date Received: 8 July 2022



Submission to the NSW Parliamentary Inquiry into Embedded Networks

8 July 2022

Mr Ray Williams MP

Chair of the NSW Committee on Law and Safety

Dear Mr Williams,

Thank you for the opportunity to contribute to the Committee on Law and Safety's inquiry into embedded networks in New South Wales.

The Australian Energy Market Commission (Commission) is an independent statutory body that makes rules for Australian electricity and gas markets and provides strategic advice to the Energy National Cabinet Reform Committee and Energy Ministers' Meeting.

The Commission conducted two reviews of the regulatory frameworks for embedded networks in 2017 and 2019. The Commission considered there are deficiencies in the current embedded networks regulatory frameworks that lead to material risks of consumer harm. The Commission therefore proposed a comprehensive package of law and rule changes to fix these deficiencies.

AEMC reviews of the regulatory frameworks for embedded networks

In December 2016, the Commission was requested by the then COAG Energy Council to undertake a review of the regulatory arrangements for embedded networks. The final report [Review of regulatory arrangements for embedded networks](#) was published in December 2017 and found that the current regulatory frameworks are no longer fit for purpose in the face of the growing number and scope of embedded networks.

In August 2018, the Commission initiated a second review to provide advice to the COAG Energy Council on the regulatory amendments required to implement the recommendations in the first 2017 review. The final report [Review of updating the regulatory frameworks for embedded networks](#) was published in June 2019 and included recommended drafting instructions for the NEL/NERL and recommended drafting for Minister-made rules in the NER/NERR.

Key issues identified by AEMC reviews

The two reviews found that the current regulatory arrangements are not fit for purpose. Key issues identified included:¹

- **No access to retail market competition:** Given that embedded networks are exempt from registering with AEMO as network service providers, their customers are not included in AEMO's retail market systems. This means that competing NEM retailers are unable to quote, transfer and bill customers using standard market processes. Embedded network customers therefore have limited ability to change suppliers if they are dissatisfied with their service or price. This is particularly problematic in the current context of energy bills increasing substantially.
- **Limited consumer protections:** While there are some consumer protections for embedded network customers, they are more limited than those applicable to customers with standard supply arrangements. Consumer protection gaps exist in areas such as de-energisation and re-energisation,² obligations to provide connection services, life support arrangements, information

¹ See appendix for further detail on each of these issues.

² De-energisation and re-energisation obligations refer to retailer and distributor obligations before a premise can be disconnected and reconnected.

provisions and retailer of last resort arrangements. It is also more difficult for customers in some jurisdictions to access concessions and ombudsmen schemes.³ The AER's *Retail Exempt Selling Guideline* imposes conditions on exempt sellers to become members of ombudsman schemes, however, the difficulty lies in exempt sellers failing to fulfill this obligation and thereby prohibiting customers from accessing the schemes. The AER is currently engaging in a number of compliance initiatives to ensure compliance with this condition and consumer awareness of their rights.

- **Inadequate compliance and monitoring regime:** Unlike registered network service providers and authorised retailers, there are no compliance reporting requirements on exempt network service providers or exempt sellers. This makes it difficult for the AER to have visibility over compliance. There are also limited enforcement options available to the AER (breaching the retail exemptions in the *Retail Exempt Selling Guideline* may attract civil penalties, however, there is no equivalent provision in the NEL for network exemptions). This can be further exacerbated by the complexity of some business models which can involve owner corporations, embedded network operators, billing agents, exempt sellers, and authorised retailers.⁴ This complexity can make it difficult for the AER and ombudsmen to determine which parties are responsible for the supply and sale of energy and which obligations apply to them.

The regulatory framework for embedded networks is no longer fit for purpose given the scale and scope of their growth. The framework for exempting networks from registration and retailers from authorisation was originally established to address risks from a limited set of activities where the sale and supply of electricity was not an entity's core business, i.e. caravan parks, shopping centres, office buildings.

Now the number of residential network exemption registrations has increased significantly. There is limited data available on the number of embedded network customers. However, through stakeholder consultation it was suggested that in 2019 the number may have exceeded half a million customers.

The scope of embedded networks has also increased, as many entities have complex business models and operate as energy service provider monopolies where the sale and supply of electricity is their core business. Given the expansion in the scale and scope of embedded networks, the AEMC's reviews have found the current regulatory frameworks to be outdated.

Key recommendations put forward in AEMC reviews

The AEMC's reviews were conducted from the perspective of national consistency in line with our remit and in the interest of greater coordination and efficiency. The key recommendations from the 2019 review are briefly summarised below:

Recommendation topic	Brief description
Registration and exemption	The extension of customer protections to embedded networks is key to ensuring effective consumer protections and competition outcomes. In its reviews, the AEMC recommended creating two new authorised roles which would be subject to obligations relating to consumer protections and retail

³ See appendix for further detail.

⁴ **Owner corporations** refer to developers contracting a third party to fund and supply the infrastructure and metering for an embedded network (i.e. residential apartments) so the owners corporation is responsible for maintenance of common areas and the delivery of electricity.

Billing agents often perform many activities in smaller embedded networks and are currently unregulated.

Exempt sellers refer to retailers exempted by the AER from the requirement to hold a retailer authorisation.

Authorised retailers under the AEMC's proposed framework may be NEM retailers authorised by the AER under the NEEL or off-market retailers with limited authorisation from the AER.

	market competition; <i>embedded network service providers (ENSP)</i> and <i>off-market retailers</i> .
Consumer protections in the NERL and NERR	The new authorised off-market retailer was intended to ensure customers in new embedded networks that were registered with AEMO would be subject to the existing consumer protections under the NERL and NERR that are applied to NEM retailers.
Market and system integration	It was proposed to extend the application of the NER metering framework to embedded networks so that off-market retailers would appoint a metering coordinator at child connection points like standard retailers, and ENSPs would register all child connection points with AEMO.
Network billing	Standardised billing arrangements were proposed in order that external network charges could be recovered from embedded network customers who chose to go 'on-market' with an alternative retailer.
Connection of retail customers	It was proposed that ENSPs must connect new customers and make requested alterations to existing connections within the embedded network, in a similar manner to obligations on DNSPs under the NERL and NER.
Connection of registered participants	Introduce a new framework for the relevant DNSP and AEMO to access the information and tools they need to maintain network and system reliability and security when a large load or embedded generator connects to an embedded network: • For example, large load customers that purchase electricity directly from the wholesale market such as smelters or factories. • It is important that the DNSP and AEMO can specify technical requirements for the connection of load, including negotiating performance standards that are subject to a compliance and enforcement framework.
Arrangements for existing embedded networks	The AEMC recommended a transitional framework to address the regulatory gaps in relation to embedded networks: • Full transition: legacy embedded networks established on or after 1 December 2017 were proposed to be required to comply with the new framework within two years of the effective date. • Partial transition: legacy embedded networks established prior to 1 December 2017 would be required to comply with the arrangements for off-market retailers under the NERR and have network exemptions grandfathered. • Individual exemption: legacy embedded networks were to be able to seek an individual exemption from having to register as an ENSP and seek authorisation by the AER as an off-market retailer and therefore not need to transition.

Responses to the AEMC reviews

The 2017 review received over 30 submissions and the 2019 review received almost 50 submissions. Ombudsmen, consumer groups and retailers expressed overall support.

The AEMC's final recommendations were provided to the (then) COAG Energy Council on 20 June 2019. The COAG Energy Council referred the AEMC's recommendations to a working group that commissioned KPMG to undertake a cost-benefit analysis. The KPMG report was completed in 2020 and found that in 61% of scenarios modelled, the benefits of the AEMC's recommendations would not outweigh the costs. However,

it was noted that not all consumer benefits could be quantitatively valued and some customers would benefit significantly.

The jurisdictional governments therefore concluded not to accept the AEMC recommendations, and for jurisdictions to pursue their own actions to support customers in embedded networks.

Recent jurisdictional developments

In terms of jurisdictional actions following the COAG Energy Council's decision not to pursue the AEMC recommendations, the AEMC is aware that the Victorian Government has committed to banning embedded networks in new residential apartment buildings. It released a final recommendations report in January 2022 on its embedded networks review by an expert panel. The panel has considered potential linkages with national level reforms as recommended by the AEMC's reviews and outlines the various alignments and divergences.⁵

Recent AEMC developments relevant to embedded networks

The AEMC is currently progressing a rule change that provides protections to customers affected by family violence. The draft determination requires retailers to publish a family violence policy, refrain from disclosing an affected customer's personal information without consent, and recognise family violence as a cause of payment difficulty. These protections would not apply to customers of embedded networks under the current framework because under the NERL, National Energy Customer Framework (NECF) provisions relating to retailers do not apply to exempt sellers.

Conditions for exempt sellers are an AER function, as the *AER's Retail Exempt Selling Guideline* imposes certain conditions on certain types of exempt sellers. The AER is currently reviewing both its *Electricity Network Service Provider – Registration Exemption Guideline* and *Retail Exempt Selling Guideline* which apply to embedded network operators and on-sellers operating in embedded networks.⁶ As part of this review, the AER is considering stakeholder submissions regarding family violence protections.

One of the AER's five Compliance and Enforcement Priorities is to improve outcomes for consumers in embedded networks with a focus on enforcing an exemption condition.⁷ We support this prioritisation of ensuring compliance with its *Retail Exempt Selling Guideline* and consider it especially important given the consumer protection issues raised in our reviews and the current retail market circumstances.

Conclusion

Based on its previous reviews, the AEMC considers the regulatory frameworks for embedded networks require improvement in the areas of retail market competition, customer protections and compliance and enforcement.

We thank the Committee for the opportunity to submit on this process. If you have any questions about our submission, please contact Ben Davis, Director at [REDACTED].

Yours sincerely,



Benn Barr

Chief Executive

⁵ See Appendix 6 'How the Panel and the AEMC's recommendations intersect' in DELWP, [Embedded Networks Review – Final recommendations report](#), January 2022.

⁶ AER, [Updating the retail and network exemption guidelines – consultation paper](#), May 2021.

⁷ AER, [Compliance and Enforcement Priorities](#)

Appendix – Key issues identified in AEMC reviews

This section provides some further detail on the three key issues outlined above from the 2017 and 2019 reviews.

No access to retail market competition

The AEMC found significant practical barriers to customers in embedded networks accessing retail market competition. Currently, customers of exempt on-sellers in embedded networks are not included in AEMO's retail market systems, and so competing NEM retailers are unable to 'discover' customers and offer competitive retail contracts using standard market processes.

The AEMC recommends that embedded network customers should be included in AEMO's retail market systems and 'discoverable' to retailers to make competitive offers. Integrating embedded networks into the NEM by extending the application of the NER metering framework is key to providing customers in embedded networks improved access to retail market competition. Under the recommended framework:

- ENSPs would be responsible for registering all child connection points with AEMO and maintaining information in AEMO's systems.
- Off-market retailers would be responsible for appointing a metering coordinator at their off-market child connection points, in the same way that retailers in the rest of the NEM appoint metering coordinators.

These arrangements would mean that metering in embedded networks is consistent with that in the rest of the NEM and would also allow off-market child connection points to be 'discoverable', removing a key barrier to retail competition for embedded network customers.

Limited consumer protections

The AEMC's recommendation is to elevate new embedded networks into the national framework and provide appropriate consumer protections to customers within embedded networks. Extending the NECF to embedded networks will require amendments to:

- 1) **De-energisation and re-energisation obligations:** under the current framework, if a parent connection point is de-energised then all customers at child connection points within the embedded network will also be de-energised and could pay their energy accounts to their NEM retailer or off-market retailers despite being disconnected.

The AEMC recommends that retailers and distributors should not be allowed to disconnect parent connection points. If the local embedded network retailer fails to pay the retailer at the parent connection point, then the retailer at the parent connection point should be required to pursue avenues other than de-energisation to resolve the situation. The AEMC considers this a commercial risk that would need to be managed by retailers. For example, a requirement from the parent retailer on the child retailer that it must provide credit support to cover a three-month period.

- 2) **Obligations to provide connection services:** unlike obligations on designated NEM retailers for a premise, the current arrangements do not require exempt retailers to make an offer to embedded network customers for the sale of energy in accordance with its standing offer. There is no recognised designated retailer for embedded network customers and retailers are not obliged to make a standing offer if the customers premises are not connected to a regulated distribution system.

The AEMC recommends that the designated retailer for embedded network customers aligns with designation for standard supply arrangements. For new child connection points, the appointed local embedded network retailer (i.e. the NEM retailer or off-market retailer appointed by the recommended new authorised role *embedded network service provider (ENSP)* should be the designated retailer. For existing child connection points, where a new customer moves into the premises, the designated retailer should be the last retailer that has served the relevant connection point.

- 3) Obligations relating to notification of planned interruptions:** the current arrangements require the exempt seller to notify affected customers of planned interruptions according to the AER's Retail Exemption Guideline. However, there are no conditions in the AER's *Network Exemption Guideline* relating to planned interruptions of supply.

The AEMC recommends that distributors and retailers at parent connection points should be required to provide planned interruption notices to the embedded network distributor. The ENSP should be the main provider of planned interruption notices to embedded network customers, and be subject to information disclosure requirements in the NERR, e.g. informing customers of relevant distributor contact information to field enquiries.

- 4) Life support requirements:** when notified by a customer that a premise requires life support equipment, there should be clear obligations placed on different parties to ensure all the relevant entities are notified. Retailers and distributors should advise those customers that an embedded network planned interruption to supply could occur, and notify the relevant ENSP of the presence of a life support customer. ENSPs should notify distributors and retailers at any parent connection point within an embedded network that there is a customer with life support equipment.
- 5) Retailer of last resort (RoLR) scheme:** currently only embedded network customers that are supplied by a NEM retailer at a child connection point are protected by the RoLR scheme, while embedded network customers that are supplied by an exempt seller are not protected. This means that if the retailers is the same party as the exempt network service provider and the retailer fails, then they both fail at the same time and there is no RoLR protection.

The AEMC's recommended regulatory framework is for all child connection points in a new embedded network to be required to have a national meter identifier (NMI) and be discoverable in the market settlement and transfer solutions (MSATS). The new ENSP role would be separated from the off-market retailer role. The AEMC recommends that in the event an off-market retailer fails, then the RoLR will be the financially responsible market participant (FRMP) at the parent connection point unless that retailer is the failed retailer or the retailer has previously obtained a waiver from the AER from being the RoLR at the parent connection point.

Inadequate compliance and monitoring regime

As the scale and scope of embedded networks has increased, it has become more difficult for the AER to have visibility over their actions given their exemption status. The embedded network business model has evolved.

- The exemptions framework for embedded networks was originally established for parties such as caravan parks, office buildings, shopping centres and apartment complexes to on-sell electricity as part of their operations, but where it was incidental to their core business activities.
- The AEMC has found that a range of incentives generated by the exemptions framework and trends in high density residential building have combined to drive a proliferation of embedded network

related businesses that provide a range of services. In recent years, installing and operating embedded networks has now evolved into a business model in and of itself.

- In the traditional embedded network model, property developers would build the electricity network infrastructure assets (such as the consumer metering and power transformers) under the direction of the local network service provider distribution network while meeting all applicable Australian laws, standards and codes.
- In contrast, the AEMC understands developers now often choose to avoid the cost of establishing internal networks and metering by contracting a third party to fund and supply the infrastructure and the metering throughout an apartment complex.
- Many developers and 'utility businesses' are also now providing bundled services in embedded networks, including the provision of hot water, chilled water for air conditioning, gas for cooking and water and space heating, and telecommunications, in addition to electricity for lighting and power.
- Once established, an embedded network often effectively becomes a monopoly electricity provider given the practical impediments to switching to a retailer of choice.

The AEMC recommends strengthening the compliance framework for existing and future exempt network service providers and exempt sellers. Under the AEMC's recommended framework:

- Exempt sellers would become subject to compliance audit provisions while exempt network service providers would be subject to general information gathering powers.
- Any breaches of exemption conditions would be enforceable by the AER as part of its monitoring, investigation and enforcement procedures with breaches of those exemption conditions or network exemptions enforceable under the law.
- Most service providers servicing embedded network customers would be required to register as ENSPs.
- The ENSP would be treated as a type of registered participant under the NEL and NERL, and required to comply with provisions applicable to network service providers where rules expressly provide so. This includes being subject to AER made or jurisdictionally applicable distribution service standards for ENSPs, and Ombudsmen scheme requirements in the NERL.