



Australian Energy Market Commission

Review of regulatory arrangements for embedded networks

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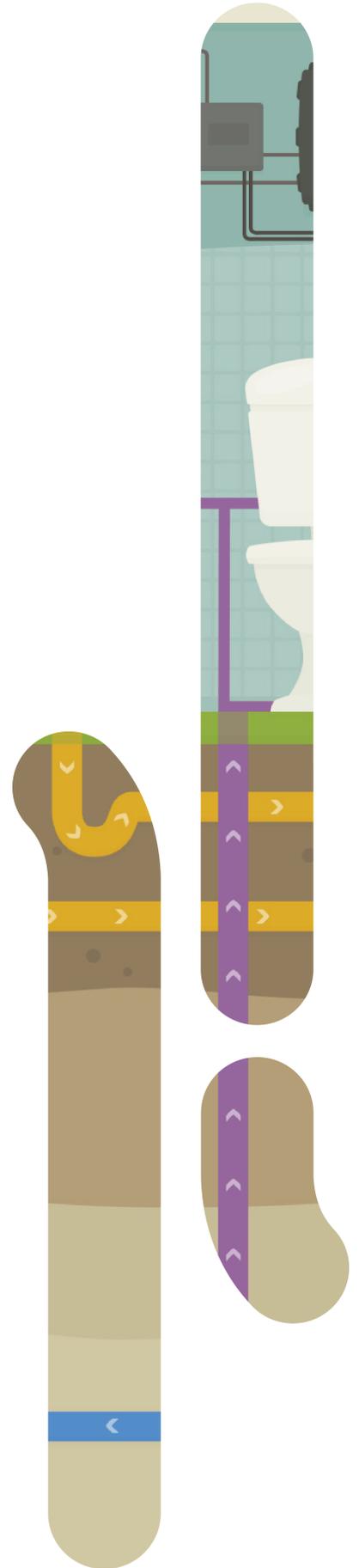


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Flow is a multi-utility specialising in the design, construction, operation and retailing of local sustainable water and energy utility infrastructure and associated services. Flow is a Brookfield company and values the opportunity to comment on the Australian Energy Market Commission (AEMC) review of regulatory arrangements for embedded networks.

Executive summary

The AEMC's *Review of Regulatory Arrangements Embedded Networks* is a timely opportunity for Government and industry to understand new and emerging businesses that are contributing to a more resilient, sustainable National Electricity Market (NEM).

Current legislative, regulatory, financial and governance structures are biased towards centralised non-renewable energy generation and supply. These last century infrastructure solutions are not delivering the most efficient and effective outcomes for the community. A competitive, transparent and modern NEM needs to be catalysed to enable a transition to next century energy generation and supply solutions that will make Australian communities resilient, generate more environmentally sustainable energy supplies, and put downward pressure on retail energy pricing.

The AEMC plays a critical role in enabling new business models and sustainable products by removing unnecessary restrictions. Flow believes vulnerable customer provisions should be strengthened through more uniform and compulsory memberships of State Ombudsman schemes. More transparent bills should be provided to customers through the unbundling of tariffs for small businesses and retail customers.

Flow is very concerned about unintentional consequences of the 85% Explicit Informed Consent (EIC) rules. Current provisions shut out property owners from decision making around their own infrastructure. The EIC level achieves in practice the opposite of what it is intended to achieve – i.e. it restricts choice and competition. As a result, it restricts many sustainability opportunities. For example, if 84 residents in a 100 lot apartment building opt in, they can be refused the right to install an embedded network by just 16 residents. Embedded networks can significantly reduce costs to owners, in turn reducing the strata fees and putting downward pressure on pricing for both owners and tenants.

Flow continues to maintain its position that various improvements as summarised in the Recommendations section are required to the existing exemption schemes in order to underpin the benefits to the customers and the environment delivered by contestable Embedded Electricity Networks (EEN) as well as existing and emerging microgrid networks.

Recommendations

Key issues the AEMC needs to address:

1. Unbundled tariffs to provide customers with more transparent bills.

Unbundling will also contribute to a more competitive market, making all services contestable and further driving downward pressure on customer utility bills.

Flow would like to see a requirement for tier 1 and 2 retailers to unbundle tariffs for residential and small business consumers where the customer has requested a transparent tariff. Doing so would allow EEN operators to provide more detail to consumers so that they are better placed to understand where they may be able to reduce cost. Ultimately, Flow believes in improved contestability of energy cost components including commodity and environmental charges.
2. Vulnerable customer arrangements such as hardship scheme and payment plans must be mandatory for all exempted retailers.

Flow believes EEN operators should be required to publish a compliant hardship policy in order to create a level playing field.
3. A more flexible standing offer and standing contract framework allowing customers to opt out of centralised grid power and choose a local alternative.

Generator owners need to be reimbursed by the retailer if customers churn. This is because locally produced power will continue to be supplied to new EEN customers even if they churn to another retailer. If they do churn, the retailer will charge the customer for electricity consumed by the local generator but will not reimburse that generator owner.

Centralised energy utility businesses should no longer be propped up by these contractual frameworks. This creates an un-level playing field for emergent next generation prosumer utilities capable of providing customers with more affordable and sustainable power
4. All retailers – including exempted retailers – should have the same level of access to distributor field services as authorised retailers on the same tariff.
5. Ombudsman membership schemes should be offered to EEN operators so that consumers are fully protected, and EEN operators must all comply with a minimum standard.
6. Remove the 85 percent EIC requirement.

Infrastructure decisions should sit under strata law with the owners of the building. Current provisions have shut out owners from decision making around infrastructure which is theirs. Flow believes it is the owner's right to convert the building to an EEN and the tenant's right to choose a retail supplier. The benefits of retail competition remain.

As it currently stands, the EIC threshold in practice restricts consumer choice. For example if 84 owner occupiers in a 100 resident building opt in, they can be refused the right to install an EEN by 16 renting tenants. Put another way, 16% of any building's residents are effectively given a blocking right over 84%. This restricts consumer choice and resulting benefits such as lower costs and sustainability outcomes. EEN can significantly reduce costs to owners and tenants, in turn reducing the strata fees and potentially putting downward pressure on rental cost.
7. More detailed rules for the protection of customers, including gate meter retailers (FRMPs) to be obliged to comply with child meter consumer protections such as life

support and concessions.

Flow believes the current rules are too vague. More detailed rules will provide greater certainty to customers and providers.

8. Retailer of Last Resort (RoLR) arrangements should be extended to include private sector EEN service providers.

In the event of a EEN service provider's failure, the existing regulated RoLR regime should apply such that the local incumbent retailer or private sector EEN service provider steps in to ensure continuity of supply to customers.

Further, in order to not restrict competition, the exemption scheme should facilitate any secured financiers of EEN infrastructure (i.e. smart meters and/or generation assets) to continue to be repaid by the step RoLR.

9. Remove unnecessary reporting which can add significant costs the administration of EEN – costs which are then passed onto consumers.

For example, EEN operators who chose to become authorised retailers but do not participate on the market (i.e. only serve off market meter points) should not be required to submit any mandatory reporting to the AER such as market transfer reports.

10. New contestable microgrid methodology to properly recompense local generators and network owners for the cost of their generation/infrastructure when customers churn.

This would enable contestability in EEN and microgrid networks.

Questions

1. **Does the two-tiered framework of requiring either registration/authorisation or exemption remain fit for purpose?**

Answer: Flow believes the two tier exemption/authorisation scheme is generally fit for purpose with some notable exception which we have identified in this submission (as summarised in the Recommendations section).

In the context of the growing number, scale and diversity of exemptions:

- a. **What issues does the two-tiered regulatory framework of requiring either registration as an NSP/authorisation as a retailer, or exemption give rise to?**

Answer: The exemption process allows businesses like Flow to enter the market as an EEN service provider and deliver more affordable and sustainable services to customers. However, the exemption scheme is not broad enough to encompass the emerging needs of communities and city planning, for example, multi-strata precincts with shared embedded networks which either require multiple retail exemptions or retail authorisation. Similarly, the network exemption regime does not sufficiently set out the rules related to network sharing across strata boundaries. The result reduces efficiency and drives up consumer costs.

Further, the clarity of exemptions needs to be revised. For example, the roles and responsibilities of multiple parties needs to be clearer for the exemption registration process. It is not clear how to apply the exemption to various parties so there is clarity around liability and functions.

- b. **Are there alternative regulatory arrangements, not based on a binary system of registration/authorisation or exemption, that would be more appropriate?**

Flow does not believe an alternative non-binary system is required, however, the exemption tier should be expanded to cover all points raised in this submission.

2. **Does the exemption framework remain fit for purpose?**

Answer: The framework structure is fit for purpose however the substance of the frameworks needs further improvement to meet the frameworks objective, notably the efficient investment in infrastructure.

- a. **Does the exemption framework promote efficient investment and allocation of risks and costs. Specifically, does the exemption framework:**
 - i. **Incentivise efficient investment in infrastructure and energy services within embedded networks?**

Answer: Yes - the exemption framework does go some way towards promoting efficient investment because private sector participants do not need to be authorised in order to compete.

Paradoxically, Power of Choice hinders efficient investment in localised generation due to the inability to separate locally produced electricity from retailer supplied energy at on-market child meters. Where customer churn occurs, local generation investments are likely to become unviable. The framework should require retailers to pay for locally produced generation, although we acknowledge the obvious logistical difficulties this may cause.

ii. **Appropriately allocate risks between exempt sellers and exempt network service providers and embedded network customers.**

Answer: Flow believes that risk allocation should be an unregulated matter negotiated by exempt sellers and exempt network service providers. Already, exempt sellers (i.e. Owners Corporations will be acting in the best interest of exempt customers). Unregulated risk allocation, with the approval of all interested parties creates an environment where innovative solutions are unhindered by a regulatory cycle that is not always able to keep pace with technology.

b. **Does an exemption framework continue to be necessary for some categories of embedded networks? If so:**

i. **what should the objectives of a network and retail exemption framework be?**

Answer: Flow believes that the exemption framework supports the National Energy Objectives (NEO) to promote competition, but that competition could be significantly improved by adopting the recommendations put forward in this submission. Competition provides choice and in Flow's experience leads to sustainable solutions and better outcomes.

In addition to the core NEOs, the objectives should be broadened to include resilience, sustainability and innovation:

- To ensure that embedded networks and microgrids are on a level playing field, the core benefits of sustainability and resilience should be recognised;
- As with other global markets, the long-term reduction of transmission and distribution costs in the NEM as a result of EENs should be recognised. EEN operators should receive a rebate reflecting a percentage share of such avoided costs enjoyed by network distributors.

Competition is the best catalyst for sustainability. New and more affordable renewable products such as battery packs and integrated solar solutions are driving new efficiencies and greater choice for customers. As such, Flow believes the AEMC should apply competition to network providers as well as retail competition.

ii. **What types of embedded networks and on-selling arrangements should be eligible for exemption?**

Answer: All existing arrangements and in addition, multi-strata precincts and community energy projects such as shared battery solutions, solar arrays (including arrays in adjacent properties) and micro-CHP. Grid connected parallel networks should also be included such as DC coupling of solar and batteries.

While the retail exemption scheme does allow you to sell electricity to an adjacent property, a contradictory issue is that network exemption does not explicitly permit distribution across a boundary. It does not also disallow it, but puts the obligation back to the State for clarification. This is a significant barrier to competition and innovation and must be corrected. One interpretation of the NSW Electricity Supply Act 95 is that it may prohibit all distribution without a license. As mentioned above, the regulatory cycle is not always able to keep pace with technology and in this case we believe that the NSW Electricity Supply Act 95 requires review in order to accommodate EEN distribution across a boundary.

- iii. **Do the three categories of deemed, registrable and individual exemptions remain appropriate? If not, what changes should be made to the exemption framework?**

Answer: These deemed and registerable categories need to be expanded to cater for the growing market in renewables and community energy projects. The individual exemption category appears, in practice, to be too restrictive and Flow believes that all schemes should be considered under the individual framework, such as multi-strata precincts without community title schemes.

- c. **Has the AER been provided the appropriate powers and functions in relation to exemptions under the NEL and the NERL?**

Answer: Flow believes that the AER should be given greater discretion to approve individual exemptions in order to keep pace with fast evolving technology and commercial models. Flow respects the AEMC consultation process, but in some cases the consultation process timelines are unable to keep pace with technology and market demand.

- d. **Are the current reporting, compliance and enforcement arrangements under the exemption framework appropriate? If not, what changes should be made to the current compliance framework for exemption.**

Answer: Flow believes that the current reporting framework for exempt retailers is appropriate. Flow would like to see similar frameworks in place for authorised retailers who only participate in EENs.

3. **How do jurisdictional legal instruments affect the regulatory framework for embedded networks?**

- a. **Are there any relevant jurisdictional legal instruments or policy positions that affect the regulatory framework for embedded networks that were not identified in the Embedded networks final rule determination?**

Answer: In some cases, especially in NSW, the jurisdictional legal instruments have not kept pace with emerging technologies and commercial models. The AER framework and local regulation often contains contradictions and inconsistencies. Flow would like to see federal and state legal instruments harmonised.

- b. Have any of the jurisdictional legal instruments or policy positions been reviewed or amended since the Embedded networks rule was made in December 2015.**

Answer: We are unsure why AEMC is seeking consultation from EEN service providers on this question. However, Flow believes certain consumer protection rules and policies have been expanded, such as access to concessions and life support, but core Acts have not been amended, or sufficiently amended to harmonise Federal and State positions.

4. Can access to retail competition be improved?

- a. What barriers exist for small and large customers in embedded networks going on market?**

Answer: Barriers to market have been explored in detail in the 2015 rule change, which puts in place adequate rules for competition for consumers. Flow believes that the settings are broadly appropriate, however industry needs time to see how the settings work in practice. Lack of bundled tariff transparency remains a barrier to improved competition as EEN operators are not able to clearly demonstrate the financial value and competitive advantage they add to consumers.

- b. Are retailers currently providing or planning to provide competitive market offers to EEN customers?**

Answer: Flow has not seen clear evidence from retailers that they have published products for EEN customers.

- c. What barriers will remain to providing these offers after 1 December 2017 with the commencement of the Embedded networks rule?**

Answer: Flow believes retailers should, where requested by a customer, move to unbundled tariffs which will provide customers with more transparent bills. Unbundling will also contribute to a more competitive market, making all services to contestable and further driving downward pressure on customer utility bills.

- d. Are there examples or cases of small and large embedded network customers going on-market? What were the circumstances that made going on-market desirable and possible for these customers?**

Answer: Flow actively promotes the customers right to select a retailer of choice. The shadow pricing methodology permitted under the network exemption scheme removes any disincentive for ENOs to not promote power of choice. We have no customers who have chosen to select an alternative retailer. Flow believes that the lower price settings associated with EENs result in consumers remaining off-market by choice.

Whilst the shadow pricing methodology permitted under the network exemption scheme remove any disincentive for ENOs to not promote power of choice, it is important for Flow to retain customers on the off-market network to underwrite the commercial viability of a site. The need to retain customers and the ability for the customer to churn ensures that the embedded network operator must set prices at a market competitive level. This is proof competition exists.

e. What is the level of competition to provide electricity to embedded network operators at the parent meter?

Answer: Flow believes that parent meter competition is sufficient. However, Flow believes that the exemption schemes requirement for parent meter electricity contracts to be held in the name of the Owners Corporation prohibits efficient bulk purchasing and multisite contracting by EEN service providers with retailers on an aggregated basis. This piecemeal approach prevents parent meter retailers from offering more competitive multisite offerings, driving up end costs to consumers.

Flow would like to see the scheme permit contracting between EEN service providers and retailers to increase competition.

f. Is there an imbalance in negotiating power between embedded network customers and embedded network operators in negotiating terms and conditions, including price, due to barriers to accessing retail market offers?

Answers: Customers already have power of choice and can select a retailer. Flow believes that retail competition is effective and EEN price settings so attractive to consumers that Tier 1 and 2 retailers are unable to compete on price for the individual customer.

It is our view that the exemption scheme underpinning EENs results in a much more competitive and cost effective outcome for customers.

Flow's policy is to offer the best available price at all times (i.e the lowest viable tariff).

Additional considerations

Existing Building Retrofit and Explicit Informed Consent

Flow supports a competitive market for EENs and microgrids. However, the EIC requirement is an example of a rule that prohibits competition. The rules should focus on transparency and consumer protections rather than seeking the opinion of people who may not have an interest in the future of a building, namely renting tenants. Flow does not support the current 85 percent EIC threshold. Infrastructure decisions should sit under strata law with the owners of the building.

Body corporates already have a framework for decision making, they levy fees, appoint waste contractors and procure services. The procurement of EEN services are best placed with the body corporates who are the core customers. The requirement of 85% consent from tenants will limit competition because it creates an unnecessary barrier.

Current provisions have shut out owners from decision making around infrastructure which is theirs. Flow believes it is the owner's right to choose the network provider and the tenant's right to retain the supplier. EENs can significantly reduce costs to owners – in turn reducing the strata fees potentially putting downward costs on the tenant. Additionally, these savings present new economic arguments for further sustainable action in buildings. Addressing energy efficiency in existing buildings is a critical priority for governments looking to reduce carbon in one of the most carbon intensive sectors – the built environment. Additionally, with more than 95% of City of Sydney and Melbourne residents forecast to be living in apartments in the coming decades – existing buildings will be home to majority populations who will be looking for ways to future-proof their apartments and maintain efficiencies.

The EIC threshold restricts consumer choice, for example if 84 residents in a 100 resident building opt in, they will be refused the right to install an EEN by 16 residents in other words, 16% of a buildings tenants have a blocking right. This restricts consumer choice and resulting sustainability outcomes.

Flow believes that the AERs current regulatory framework supports competition and the 85% EIC threshold is not required . Protections are already in place that enable choice.

Local Generation Rule Change

A rule change to alter the payment arrangements for embedded generators in the National Electricity Market (NEM) is critical to enabling innovation and competition in the energy market – driving down costs to consumers, government and developers.

It is also essential in enabling the next generation non-coal reliant energy infrastructure which can deliver greater efficiencies. Industry and cities see the benefits of harnessing renewable energy sources and low carbon solutions through self generation as this substantially reduces energy bills and carbon emissions while driving greater resilience. The current NEM rules are restricting commercial viability and global best practice technologies and innovation. The rules need to be enhanced to promote cogeneration and trigeneration and battery generation all of which improve load factors for the NEM. Valuing the contribution of these technologies to the NEM is essential to commercial viability of the sector.

It is widely accepted in Australia, by industry and the Australian Energy Market Operator (AEMO), that local generation has the potential to reduce peak demand. There is also precedent for such an

approach in the UK Office of Gas and Electricity Markets – which requires each distribution network to publish, as part of its annual schedule of distribution tariffs, a credit tariff payable to ‘decentralised generators’.

Flow believes that to incentivise the right size grid and get the balance right for consumers and generators – it is essential the value of local generation be recognised and participation encouraged. A rule change also delivers on stated objectives of achieving cost-reflectivity in network pricing through a price signal for exported energy where and to the extent that the exported energy serves to defer or avoid augmentation, reduce the cost of replacement assets, or reduce load at risk. It will enable local generators who export energy to monetise the benefits they collectively provide to the grid.

Importantly this should put downward pressure on prices and provide benefits to consumers over the long term, by incentivising investment in lower cost alternatives to the long run marginal cost (LRMC) of the network. Requiring these credits through the proposed rule change would be transformative to the market – making the grid stronger and more resilient for everyone’s benefit.

More comprehensive modelling required – Flow believes the AEMC needs to undertake a more comprehensive examination of cost reflective locational pricing mechanisms project costs and benefits. Flow would like a discussion paper to be developed with industry participation on alternative mechanisms that reward small and medium generators for the value they present to the network, with reduced charges offered for restricted use on the network. We believe that the LGNC is a positive starting point for these discussions.

Microgrids

Retail market rules should be developed with regard to the emergence of microgrids with industry – Flow’s view is that it is essential the AER recognises the context of new market models. Emergent models will be based on urban development contexts, energy user type, and specific energy services, such as EVs. The energy infrastructure for different urban forms is critical to the long-term development of energy business models. Flow is committed to market models that rely on precinct style developments – new residential or mixed- use developments in two different urban contexts:

high density urban infill which involve multi-dwelling and mixed use – commercial and retail

land and housing developments which entail low rise single dwelling housing and less concentrated mixed use.

These different urban forms influence the long-term energy business models in different ways. Each implies different scopes for battery storage, local renewable energy generation, EV’s and local grid management. These differences need to be acknowledged by the regulator.

While microgrid operators will eventually require retail authorisation, the nature of this authorisation may need to be adapted to cater for emergent models. To protect commerciality of business models, the AER should consult directly with a variety of microgrid market entrants to develop market rules, which could then be broadly applied. Discussions regarding microgrids be contemplated in an integrated manner with AER network rule changes to ensure uniformity and practicality of overarching regulatory approach.

Trigeneration

The current regulatory framework cannot adequately support the utilisation of cogeneration or trigeneration urban in-fill precinct developments in NSW. Shared generation infrastructure is more efficient and potentially sustainable than building based cogeneration and trigeneration yet multiple barriers prevent their successful implementation in NSW. In particular, Federal and State regulation does not support the sharing of energy from precinct trigeneration between buildings which will often negatively impact on economic viability of a scheme. The following unnecessary costs and bureaucracies must to be removed.

Current NEM barriers mean decentralised electricity customers are paying too much for decentralised electricity. This is because decentralised energy systems have high and increasing Network Use of System (NUoS) tariffs imposed for the transporting decentralised electricity through publicly owned wire. These NUoS charges must be eliminated. This can be achieved through exemptions for precinct scale network providers. In addition connection costs are too high and connections require protracted negotiations.

- Remove unwarranted NUoS charges that are distorting true costs of connection and passing on higher costs to consumers of decentralised energy.
- Introduce a standard connection processes for decentralised energy systems that will remove existing costs, delays and financial uncertainty associated with NEM access.
- Create a connection exemption or licensing provision enabling decentralised energy schemes to retail to multiple customers.
- Ensure NABERS ratings can be applied fairly to cogeneration and trigeneration precinct schemes.
- Introduce feed-in tariff for cogeneration and trigeneration precincts to ensure the economic viability of decentralised energy schemes.
- Prevent gas network distributors from categorising decentralised energy schemes as aggregators – this will substantially reduce costs to consumers.
- Introduce a fair and reasonable approach to gas distribution charges.

Conclusion

Flow welcomes the willingness of the AEMC to begin the journey of modernising rules and regulation around the local generation, supply and retailing of energy. Flow is investing in new renewable and sustainable solutions at a local level that encourage and support prosumers (i.e. local generation and consumption). This consultation should facilitate new business models that empower consumers to access affordable and sustainable energy without compromising customer protections.

Flow is happy to provide the AEMC with more information on the barriers and opportunities to achieving this low carbon and local energy future.

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