

# Review of embedded networks

## Draft report

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Public forum – 4 October 2017

**Chair:**

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AEMC



# Agenda

- Overview
- Improving access to competition and consumer protections in legacy embedded networks
- < 15 minute break >
- Elevating new embedded networks into the national framework
- Retail customer issues
- < Lunch >



## Background to the review

- Dec 2015 – AEMC makes changes to National Energy Rules to improve access to retail competition for embedded network customers in response to a rule change request from AEMO
  - New rules start 1Dec 2017 and will reduce some (but not all) of the barriers to retail competition for some embedded network customers
  - Changes to the National Energy Retail Law and Rules are out of scope
  - Recommends COAG Energy Council request AEMC to undertake a broader review of the regulation of embedded networks, including retail law and rules issues
- Dec 2016 – COAG Energy Council provide terms of reference for review



## State of play and next steps

- We published an issues paper in April 2017
- We published the draft report on 12 September 2017
- We are inviting submissions - please upload your submission on the project page on our website by 17 October 2017
- We plan to publish the final report on 28 November 2017



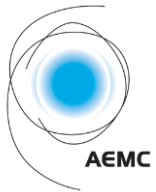
## Importance of appropriate consumer protections

- A strong consumer protections framework is critical for fostering trust and confidence in competitive markets and recognising the nature of energy as an essential service:
  - The energy sector has undergone significant transformation since the retail law and rules were developed by the COAG Energy Council
  - The AEMC has consistently recommended over the last 4 years that consumer protections in the retail law and rules be reviewed to be appropriate for new technologies and business models
  - The Finkel review echoed these views, recommending the COAG EC's work on consumer protections for new energy services be accelerated and the AEMC review the regulation of stand-alone power systems

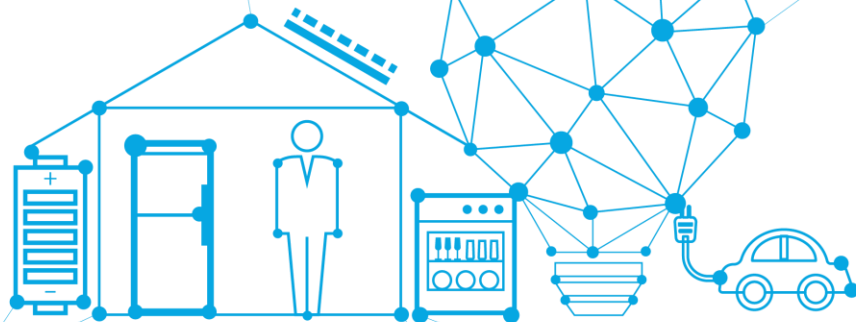


## Importance of appropriate consumer protections

- The AEMC is currently considering consumer protections issues for new technologies in a coordinated manner through several projects including this review, the stand-alone power systems rule change, our annual retail competition reviews and our strategic priorities advice
- Our starting proposition is that energy is an essential service and all energy consumers should generally receive the benefit of the same core set of consumer protections
  - Any differences in the level of consumer protections a customer receives should be based on the nature of the service and the needs of the consumer, not the business model of their supplier
  - Access to effective retail competition is also a key consumer protection



# Overview





## Scale and potential of embedded networks

Across the NEM there were 3,390 network exemptions and 2,733 retail exemptions, as of August 2017.

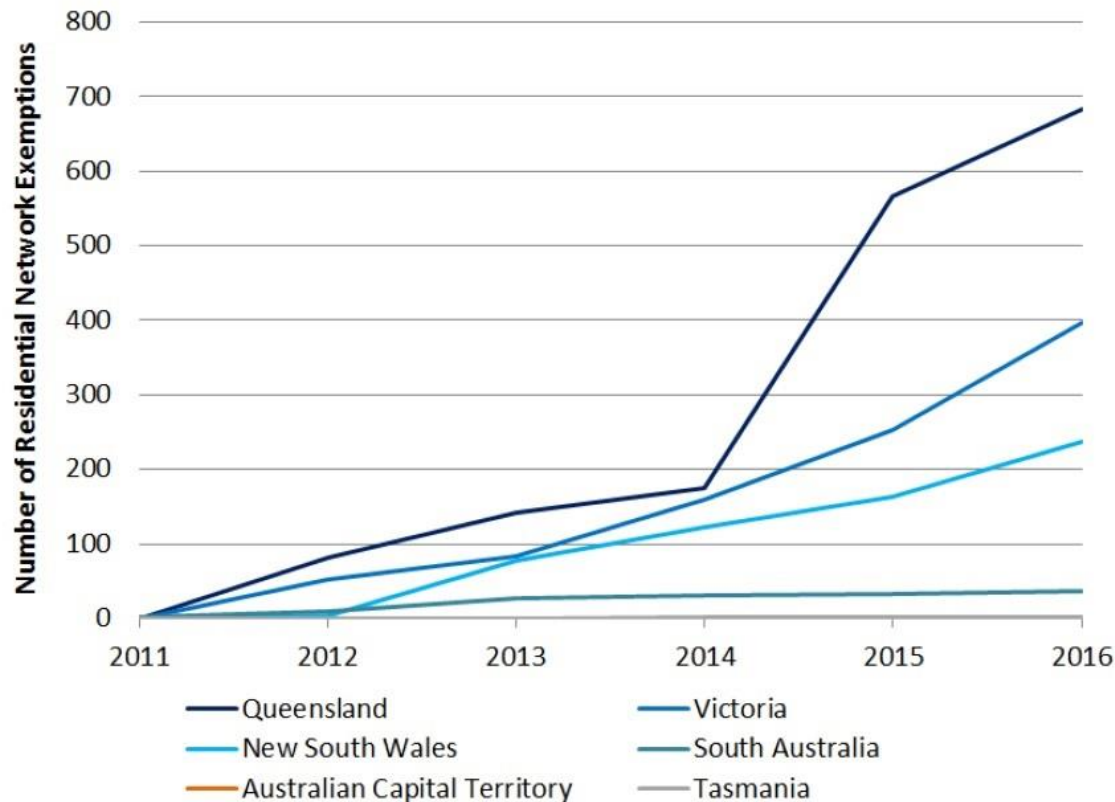
Energy Options Ltd estimates:

- Number of embedded network customers = 213,000 to 227,000
- 65 per cent of these customers are residential (including retirement villages, caravan parks) and 35 per cent are commercial
- There are 110,000 existing sites that could be configured as an embedded network, which would capture a total of about 1.5 million customers.



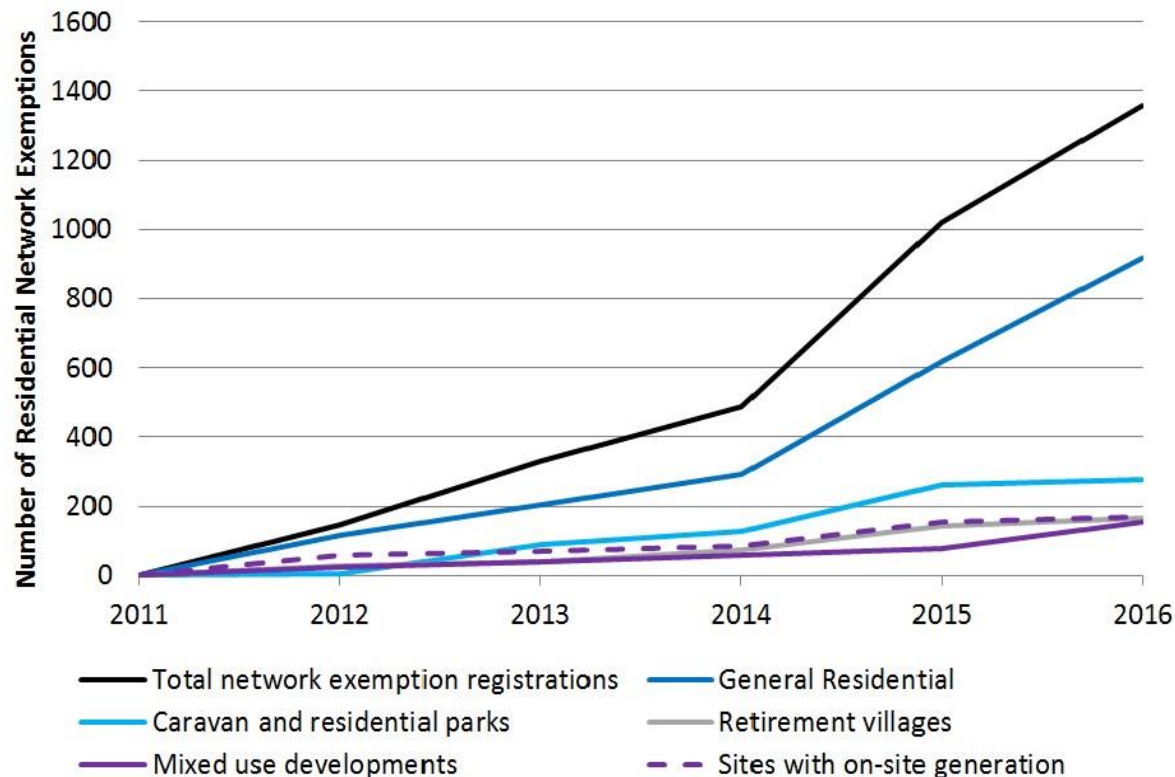


## Number of residential network exemptions by state





## Number of residential network exemptions by type



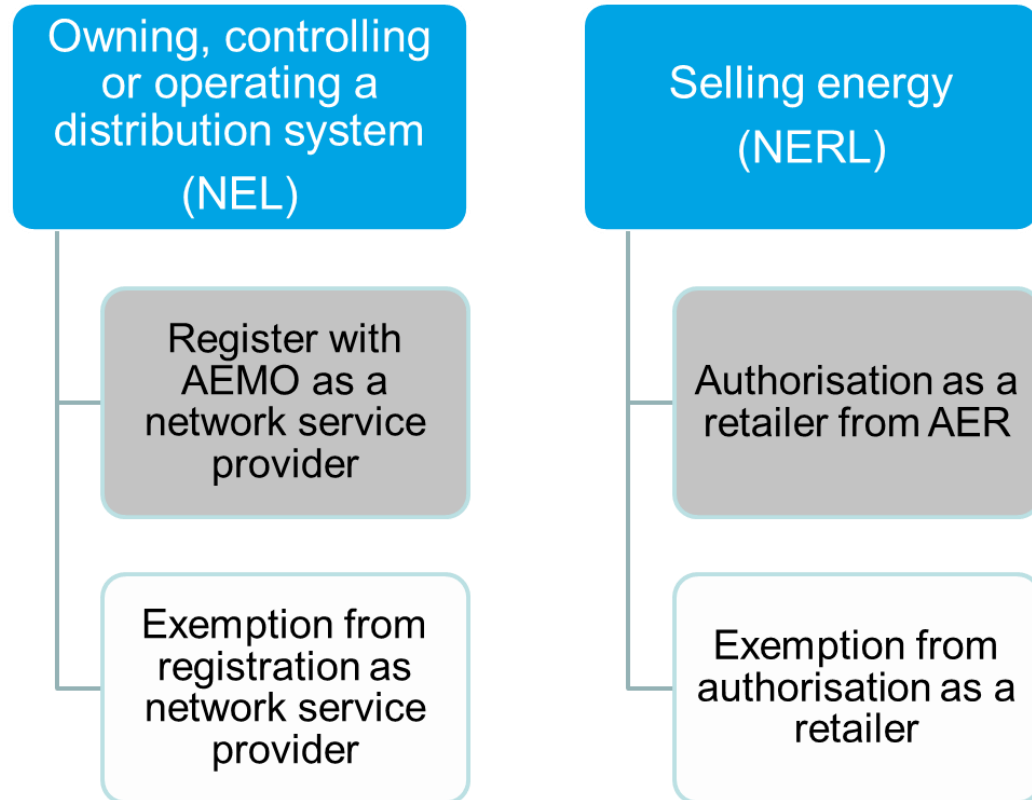


# History of regulatory arrangements for embedded networks

- Embedded networks are not new – the network exemption framework was initially developed under the National Electricity Code from 1998
- General exemptions were granted to parties such as caravan parks, office buildings, shopping centres and apartment complexes that reticulated electricity as part of their operations, but where it was **incidental to the core business activity**
- The network exemption framework transitioned to the NEL and NECA's powers in 2005 and functions in relation to providing network exemptions transitioned to the AER
- The AER gained regulatory power and functions with respect to energy retail licensing and on-selling on 1 July 2012 when the NERL came into effect for jurisdictions that had adopted the NERL



## Current two-tier regulatory framework





## Issues with the exemption framework

### Access to competition

- Discoverability of customers
- High transaction costs for retailers
- Double billing
- Access to metering

### Consumer protection

- Differences in obligations
- Overlapping jurisdictional legislation
- Price, information, safety and reliability concerns
- Inconsistent access to dispute resolution

### Compliance and enforcement issues

- Growth and diverse capability in ENs
- Complaints driven enforcement
- No reporting and limited monitoring
- Penalty regime not fit for purpose

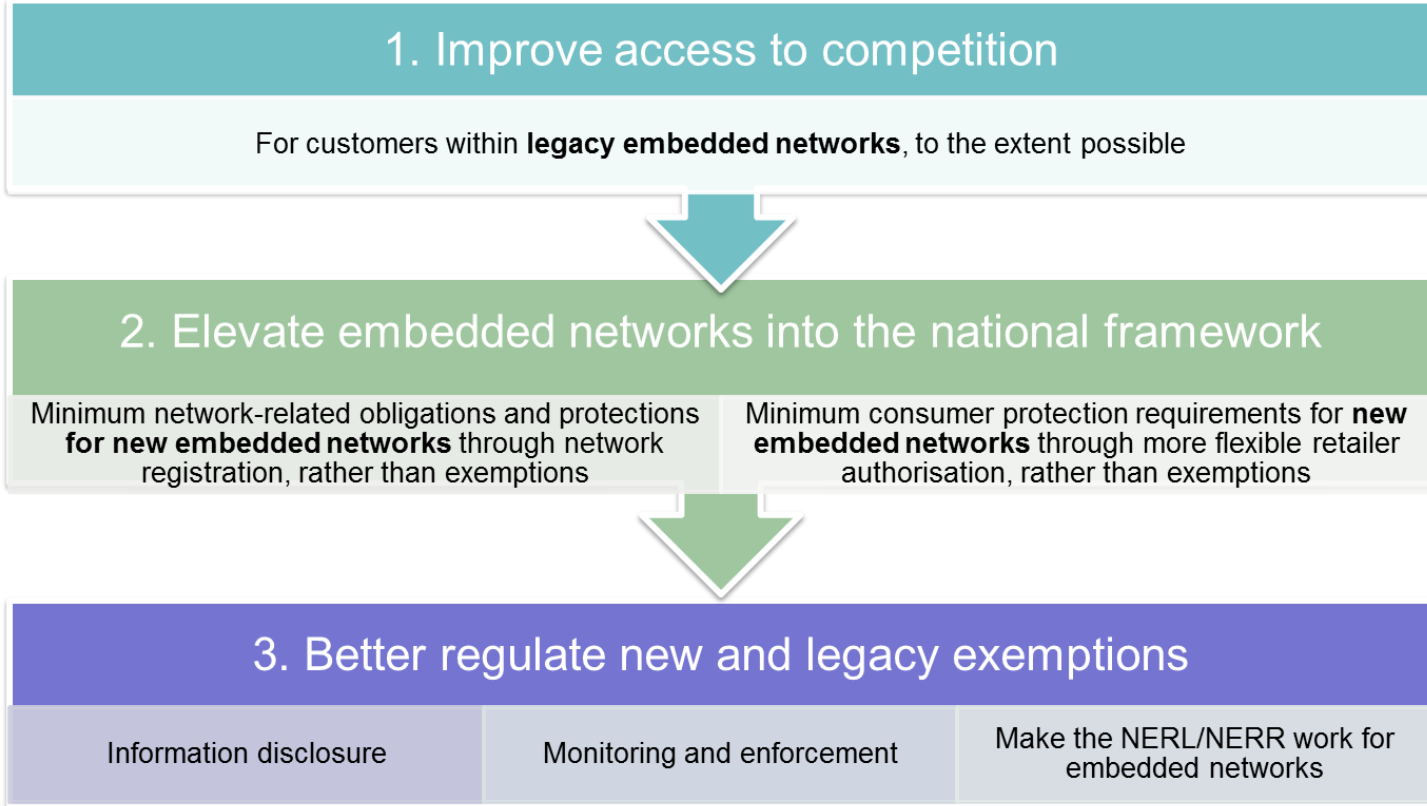


## Summary of key findings

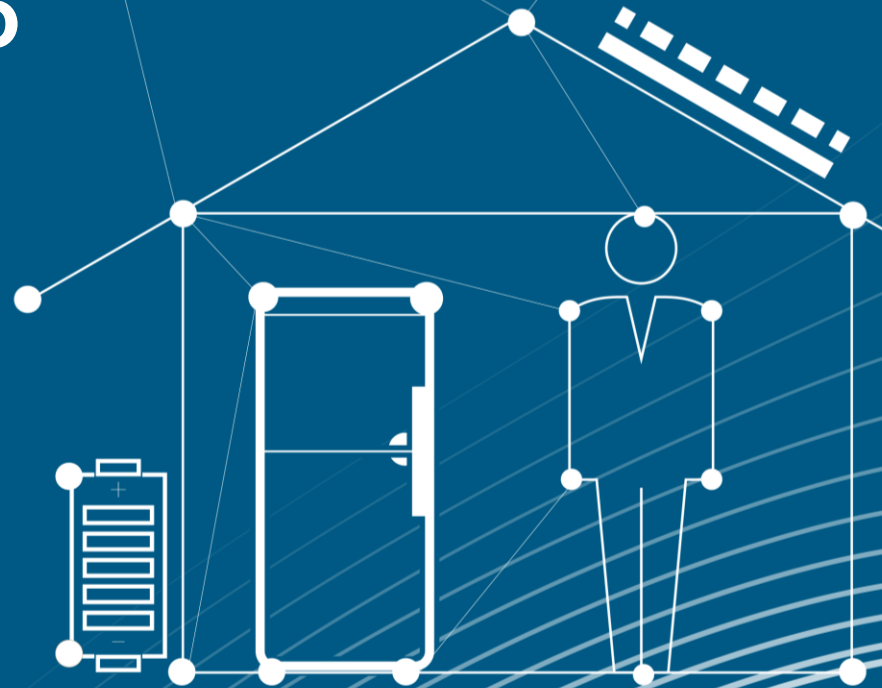
- The exemption framework is no longer fit for purpose in face of the growth in number and scope of embedded networks
- Embedded networks customers receive a lesser level of consumer protections and limited monitoring and enforcement under the network service provider and retail exemption framework due to regulatory gaps, the growth in the numbers of embedded networks, and diversity in the capacity and resources of embedded network operators.
- While some embedded network customers are benefiting from lower prices, many are paying up to standing offer levels
- Focus of exemptions is to reduce regulatory burden on embedded network owners
- Focus should start with consumers: by default, an embedded network customer should be able to expect the same access to competition and consumer protections as a standard customer



## Draft recommendations



# Improving access to competition within legacy embedded networks







## Issues and findings

- Access to competition is limited and is likely to continue to be limited after the changes to establish the embedded network manager (ENM) role
- Three things deter existing authorised retailers from providing services to embedded network customers:
  - They cannot easily confirm their existence or access their data
  - It is costly for them to develop and offer suitable services and prices
  - New arrangements may be needed with multiple parties
- Reduced access to competition limits incentives for cost savings in embedded networks to be passed on to customers



# Improving access to retail market competition

The draft recommendations aim to:

- improve the visibility of embedded networks' customers in AEMO's market systems, where an ENM has been appointed
- standardise obligations and procedures between an on-market retailer and exempt embedded network service provider relating to the payment of network tariffs for an on-market embedded network customer
- use standard market systems and processes to transfer embedded network customers from their off-market arrangements to an on-market customer relationship with an authorised retailer



# Improve the visibility of embedded networks' customers in MSATS

- Proposed change:
  - require an ENM (where one is appointed) to issue National Metering Identifiers (NMIs) **to all on-market and off-market** child embedded network customer connections
- This would require an ENM to:
  - apply to AEMO for NMIs for off-market metering installations
  - register the NMI for off-market metering installations in MSATS
  - maintain information in the metering register (NMI standing data in MSATS) about whether the meter complies with the current NEM requirements



## Standardise obligations and procedures for payment of network tariffs

- Proposed change:
  - Require (by default) a retailer of an on-market embedded network customer to pay the exempt embedded network service provider a network tariff equal to the standard published LNSP network tariff that would apply if there was no intermediate embedded network
- We are not precluding the embedded network service provider charging a lower network tariff to an on-market embedded network customer's retailer



## Questions for discussion

- Are there substantive problems in registering NMIs for both on-market and off-market customers? How could they be overcome?
- Will the proposed changes make it simpler and reduce costs for retailers to make offers to embedded network customers?
- What is the best way for retailers of on-market embedded network customers to arrange payment of standard network tariff to the embedded network service provider?

# Recommendations for new embedded networks



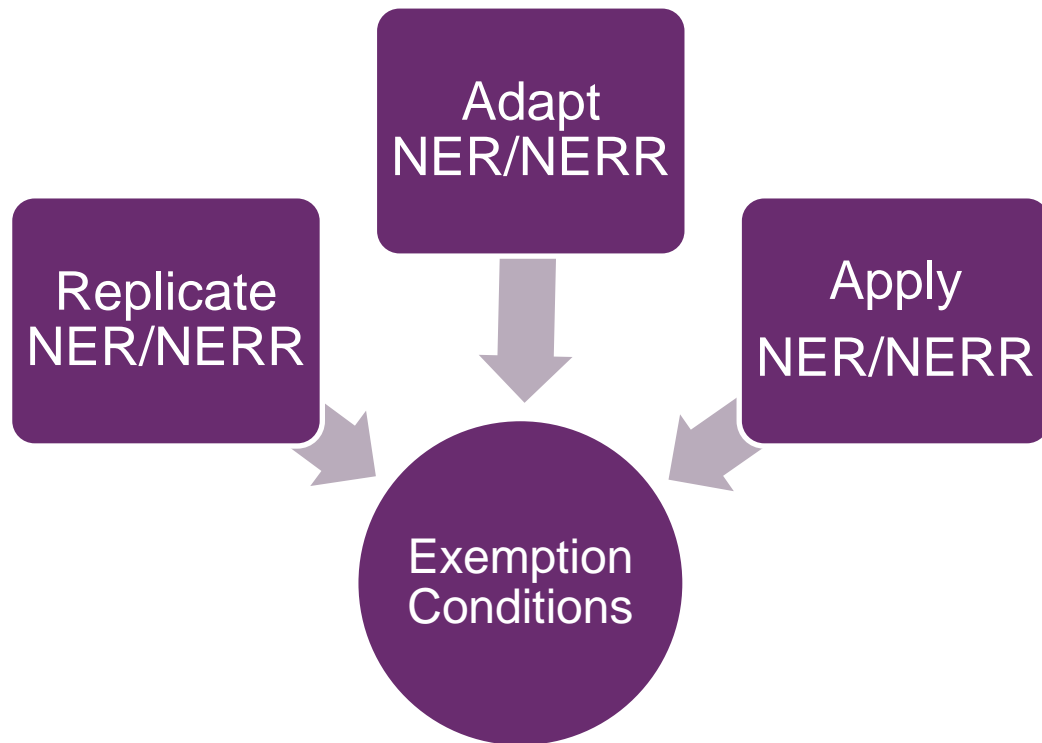


## Eligibility for exemptions

- Network service provider exemptions
  - NEL does not stipulate the kinds of network service provider exemptions or criteria to consider
  - AER guidelines set out eligibility for deemed, registrable and individual exemptions
  - Limited restrictions on the establishment of embedded networks
  - Embedded network operator self assesses for deemed and registrable
- Retail exemptions
  - Deemed, registrable, individual
  - Exempt seller related factors in the NERL
  - Customer related factors in the NERL
  - AER guidelines



## Exemption framework – exempt and replace approach



- Embedded network service providers and on-sellers are currently exempt from all obligations under the NER and NERR that apply to NSPs and retailers.
- Exemption conditions established by the AER are then used to replicate, adapt or apply in full the relevant obligations from the NER and NERR.



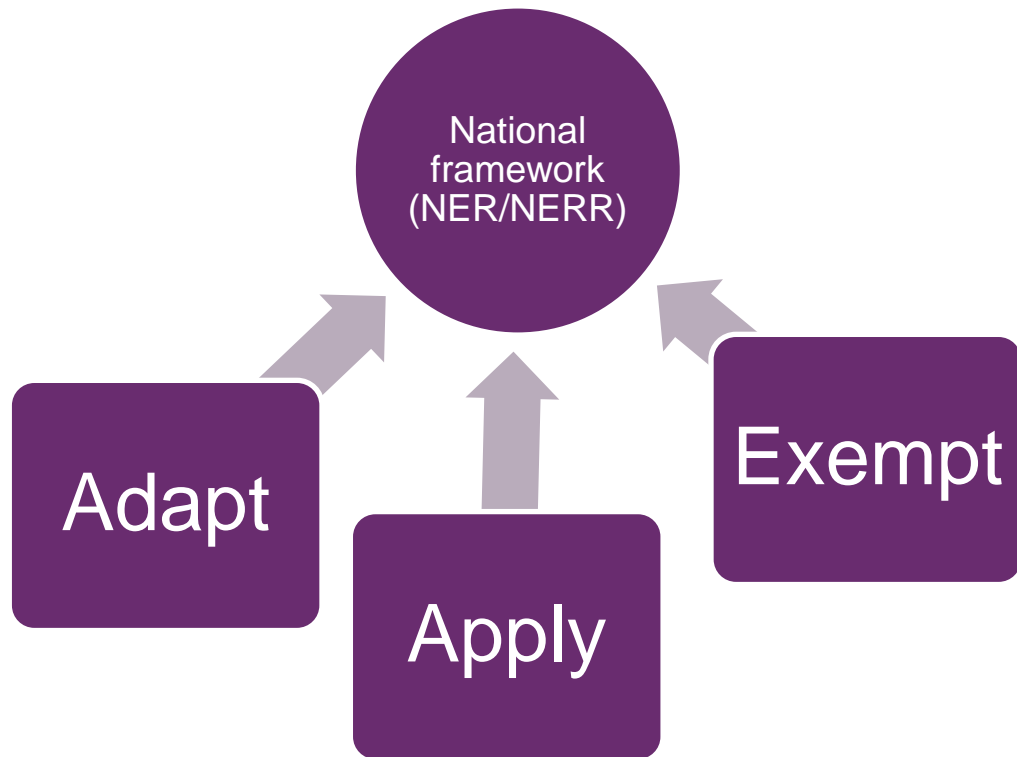


## Balancing innovation, consumer protection and access to competition

- The market for embedded network services has evolved significantly since the introduction of the NECF
- Third parties are increasingly providing retailing services
- Sellers in embedded networks are primary supplier of energy to the premises of a small customer
- The regulatory framework should promote new and innovative services without requiring consumers to trade off access to other retail offers and their consumer protections
- Energy suppliers provide an essential service and should therefore meet a set of minimum standards and provide a minimum set of enforceable consumer protections under energy specific legislation
- Small customers should also be able to expect monitoring and enforcement of those protections to be the same for both standard and embedded networks



## Elevating regulation of embedded networks supplying small customers into national framework



- The Draft Report recommends flipping the exempt, adapt and replace regulatory approach
- Adapt the NER/NERR to be fit for purpose, promote innovation, and protect consumers in embedded networks
- Exemptions from specific obligations where appropriate will provide clarity and transparency
- Embedded network arrangements would no longer necessarily be pushed into the exemption framework
- Exemptions would be reserved for a narrow set of circumstances



Role	Responsibilities
ENSP	<ul style="list-style-type: none"><li>• Any party that wishes to own, operate and control an embedded network that supplies small customers would be required to register with AEMO</li><li>• Appointing an ENM</li><li>• Network billing for on-market customers</li></ul>
ENM	<ul style="list-style-type: none"><li>• Market interface functions for on-market customers</li><li>• Also apply for NMIs and register NMI for off-market customers</li></ul>
Authorised retailer	<ul style="list-style-type: none"><li>• Any party that wishes to on-sell energy to a small customer would be required to hold a retailer authorisation from the AER</li><li>• Appoint an MC for off-market customers</li></ul>
Metering Coordinator	<ul style="list-style-type: none"><li>• Responsible for metering services at off-market connections</li><li>• Appointing Metering Provider and Metering Data Provider</li><li>• Key measure in promoting retail market competition</li></ul>



## Adapting the registration framework

- Responsibilities and obligations will need to be tailored to be proportionate and fit for purpose – further work to be done
- Embedded network service provider potentially a sub-category of network service provider



## Making the retailer authorisation framework more flexible

- ‘One size fits all’ framework under which authorised retailers currently operate does not provide the flexibility and adaptability needed as market transforms
- The draft report recommends providing AER with additional flexibility to accommodate on-selling in embedded networks, while avoiding placing inappropriate obligations on energy on-sellers
- This could be achieved through a sub-category of retailer authorisation which would provide a different set of rights and obligations



## Costs and benefits

- **Costs for participants and market bodies**
  - applying for registration and/or authorisation
  - costs of complying with obligations
- **Benefits for both participants and consumers**
  - Appropriate consumer protections
  - Promoting competition and consumer choice in products and services
  - Clear, predictable and transparent framework
  - Clear and appropriate regulatory functions and powers for market bodies
  - Promoting compliance
  - Efficient investment in energy services
  - Proportionality and regulatory burden



## New network service provider exemptions

- Network service provider exemptions should be reserved for where it would be inappropriate to economically regulate a distribution system and where the costs of registration as a NSP or ENSP would outweigh the benefits to consumers.
- This could include where the distribution network only supplies large or temporary customers



## New retail exemptions

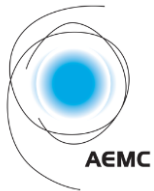
- If energy supply is an essential service that requires sector specific consumer protections then we can not see why those consumer protections should apply to some customers and not others based solely on the identity or business model of the seller.
- Retail exemptions should be reserved for where the cost of retailer authorisation would outweigh the benefits to consumers.



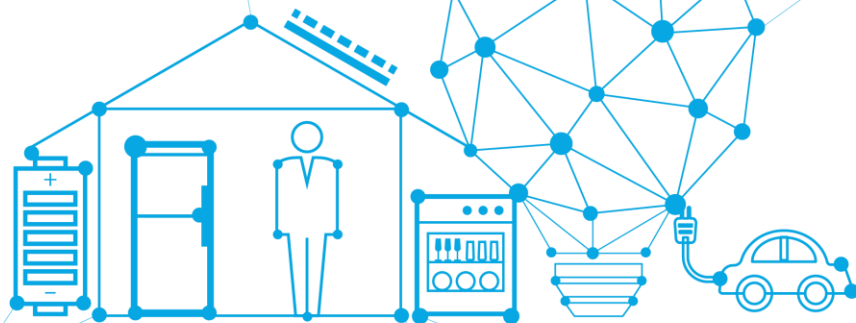


## Questions for discussion

- Will the proposed approach, including changes to the retailer authorisation process, allow an appropriate level of flexibility?
- What types of embedded networks should continue to be granted
  - Network service provider exemptions?
  - Retail exemptions?
- Will the proposed framework allow innovation, such as enabling embedded generation in multi-occupant buildings, while protecting consumers?
- Should consumer benefits be required to be demonstrated to gain approval to establish a new embedded network?
- Are there benefits in establishing a jurisdictionally harmonised regulatory framework for gas embedded network operators?



# Retail customer issues





## Exempt customers and retail customers

- Embedded networks customers supplied by an exempt seller are **exempt customers**
- Embedded networks customers supplied by an authorised retailer, whether off-market or on-market, are **retail customers**
- Under the proposed framework, most customers in new embedded networks will be **retail customers**
- Exempt customers will continue to exist in pre-existing embedded networks and in new embedded networks in the limited circumstances where exemptions are provided



## Consumer protection issues need to be addressed under the current and proposed framework

- In practice, it is unlikely to be possible to deliver effective competition for all customers in legacy embedded networks. Improvements to consumer protections are proposed for both retail and exempt customers.
- For **exempt customers** proposed changes are to better align protections with standard supply retail customers
- For embedded network **retail customers** proposed changes address where the NERL and NERR are not effective.
  - The NERL and NERR are designed on the basis of the tripartite relationship that typically exists between a customer, its retailer and its LNSP.
  - This relationship does not exist for embedded network customers because there is no LNSP at the child connection point. Instead there is an embedded network service provider.



## Independent dispute resolution

- Embedded network exempt customers have limited access to independent dispute resolution.
- Ombudsmen cannot hear complaints or unable to bind exempt entities.
- Recommendation:
  - The AER, Ombudsmen and jurisdictional governments continue to develop required changes to the retail exemption guidelines and state regulations to increase access to independent dispute resolution services for exempt customers.



## Access to concessions

- 2016 changes to the retail exemption guideline by the AER have addressed issues with access to concessions, but some embedded network customers may not be aware of all available concessions and payments.
- Recommendation
  - Jurisdictions should consider options for improving awareness of entitlements and concessions and access to these for embedded network customers.



## Monitoring and enforcement

- A number of stakeholders raised concerns over insufficient AER powers and resources to monitor and enforce exemption conditions.
- The current AER enforcement approach is driven by complaints
- Our proposed framework will address this by elevating the regulation embedded network activity and allowing the AER to have similar monitoring and enforcement powers to those it currently has over registered DNSPs and authorised retailers
- Changes are needed primarily for exempt customers in legacy embedded networks



## Monitoring and enforcement – recommendations

- The AER should consider:
  - whether further reporting obligations are required under the exemption framework
  - How monitoring can be increased under its current functions and powers
- Proposed changes:
  - Specify a role in the NERL for the AER to monitor embedded network service provider and exempt selling behaviour
  - Review penalty amounts for infringement notices and act upon previous COAG Energy Council work in this area
  - Provide enforcement options for network exemption breaches in line with those that apply for retail exemption breaches





## Standing offers and the obligation to offer/supply

- Retail customers in embedded networks do not have access to standing offers and do not have a designated retailer who has an obligation to offer/supply to them.
- This gap is addressed for exempt customers through the AER's retail exemption guideline.
- Recommendation
  - Consider the costs and benefits of extending the requirement on designated retailers (i.e. local area retailer in most circumstances) to provide a standing offer to include embedded network customers, or alternatively whether another party could take on the obligation to offer.



## Make the NERL/NERR work for retail customers in embedded networks

- The NERL and NERR are not effective for retail customers in embedded networks as they were not designed with their supply arrangement in mind.
- Recommendations:
  - Make the NERL and NERR work for retail customers in embedded networks, including by addressing the following consumer protections:
    - Consider extending the standing offer price cap for exempt customers to cover retail customers in embedded networks as well.
    - Amend the NERR to align the de-energisation and re-energisation rules for retail customers in embedded networks with standard supply customers.
    - Amend the NERR to align the life support rules for retail customers in embedded networks with standard supply customers.



## Information provision

- Clear information is an important enabler of an effectively competitive energy market and is important for customers when:
  - entering an embedded network
  - considering moving from off-market arrangement in an embedded network to an on-market retailer
  - considering converting their property to an embedded network.



## Information provision – recommendations

- Improve information provision by:
  - Amending the NERR to require authorised retailers to provide additional information and obtain explicit informed consent prior to a customer entering an embedded network or other non-traditional selling arrangements.
  - Jurisdictional governments should consider whether there is sufficient provision for disclosure of the cost, benefits and risks of embedded networks in state based laws at the time of purchase or lease of a property.
  - Authorised on-selling retailers be required to publish their prices in line with other authorised retailers, though the AER should have some flexibility to exempt some parties from inappropriate obligations.
  - Many exempt sellers should also be required to publish price information to allow customers considering moving into an embedded network an informed choice and to allow greater monitoring of exempt selling activity. The AER should consider whether some embedded networks should be exempt from this requirement due to their size or nature.



## Questions for discussion

- Will the proposed approach allow exempt customers and retail customers in embedded networks to enjoy appropriate customer protections?
- What should be included in the list of minimum obligations that would apply to authorised retailers supplying embedded network customers?
- Will increased monitoring and enforcement result in better outcomes for consumers?
- What are the costs and benefits of extending the requirement on designated retailers to provide a standing offer to include embedded network customers?