AEMC

REVIEW

Australian Energy Market Commission

FINAL REPORT

Review of regulatory arrangements for embedded networks

28 November 2017

Reference: RPR0006
Final Report

Inquiries

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

E: aemc@aemc.gov.au
T: (02) 8296 7800
F: (02) 8296 7899

Reference: RPR0006

Citation

AEMC, Review of regulatory arrangements for embedded networks, Final Report, 28 November 2017, Sydney.

About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

Summary

The Australian Energy Market Commission (AEMC or Commission) finds that the current regulatory framework for embedded networks is no longer fit for purpose. The current regulatory arrangements are resulting in some customers not being able to access competitive prices or important consumer protections. There are also insufficient monitoring and enforcement powers, leading to a lack of clarity that embedded network operators are meeting their obligations as suppliers of an essential service. While some embedded networks are providing benefits to energy consumers they may not receive in a standard supply arrangement, often they do not.

In this final report, the AEMC is recommending changes to the regulatory framework for embedded networks to address these issues. This proposed framework improves access to competition, better aligns the minimum obligations for supplying embedded network customers with those for supplying standard supply customers and provides embedded network customers with an appropriate set of consumer protections.

A new regulatory approach

The Commission is of the view that the embedded network service providers and on-sellers that serve small residential and business customers, as suppliers of an essential service, should meet a set of minimum standards and be subject to an appropriate level of enforceable consumer protections.

Consumer protections, including monitoring and enforcement of those protections, are not costless but are necessary in respect of the provision of an essential service. Similarly, there are costs involved in establishing market rules and systems to allow businesses to compete for customers. However, access to competition is also an important form of consumer protection and any approach taken must consider how this can be improved to benefit consumers.

The Commission does not see retaining the current framework as an option. For example, the current gaps in enforcement options and the regulatory gaps that exist due to the increasing role of authorised retailers in embedded networks should not go unaddressed.

To address the issues that have arisen in relation to access to retail market competition, consumer protections and monitoring and enforcement regimes we have made recommendations for changes under three objectives:

1. ***Improving access to retail market competition*** in legacy embedded networks to the extent possible
2. ***Elevating embedded networks into the national regulatory framework*** under the NER and NERR, which will involve significant reform of the two-tiered regulatory framework for new embedded network arrangements and reserve network service provider and selling exemptions for a narrow set of circumstances
3. ***Better consumer protections for new and legacy embedded networks*** including information disclosure; access to dispute resolution; improved monitoring and

enforcement; and making the NERL/NERR effective for embedded networks for customers supplied by an authorised retailer.

This review primarily relates to electricity embedded networks. However, the terms of reference for the review required the Commission to also consider the regulation of gas embedded networks.

The Commission considers that a clear and jurisdictionally harmonised regulatory framework for gas embedded network operators, that is consistent with the regulatory framework for embedded network service providers in the national electricity market, should be established under the national gas law and rules.

Next steps

The law and rules should be amended to implement a new regulatory framework for embedded networks. The AEMC will commence work on developing detailed advice on implementing the proposed framework set out in this final report, including preparing and consulting on a description of the necessary law changes and a draft rule change request, unless advised otherwise by the COAG Energy Council by July 2018.

A report from MinterEllison, "Review of regulatory arrangements for embedded networks - implementation of recommendations in Draft Report" is published on the AEMC website to accompany this review. MinterEllison advises that the recommendations made in the draft report (which are largely consistent with the final report) can be implemented through changes to the NEL and NER, the NERL, the NERR and the National Energy Retail Regulations, and various changes in administrative practice by regulators (e.g. changes in guidelines), principally the AER. The MinterEllison report provides further detail on how the AEMC's proposed framework can be implemented through the national energy framework.

In the detailed advice on the implementation of the framework, which we propose as the next stage of work on these reforms, the AEMC would consider the options proposed by MinterEllison. We would advise on the specific law and rule changes and the timing and sequencing of these changes. This would be done through an open and consultative process allowing detailed input from stakeholders. By consulting on this detailed advice it may be possible for subsequent AEMC rule change processes to be fast tracked.

There are a number of recommendations below that should be progressed by other parties including COAG Energy Council, jurisdictional governments and the AER as a matter of priority, prior to the other law and rule changes recommended in this review. These relate to:

- improving monitoring and enforcement to the extent possible in the current framework
- improving access to ombudsman schemes
- improving awareness of and access to concessions
- improving information provision at the time of purchase or lease of a property
- updating penalty amounts for infringement notices

- reviewing jurisdictional safety and reliability regimes.

Stakeholder consultation

The Commission consulted with stakeholders throughout the review. A consultation paper was published on 11 April with 34 written submissions received. A draft report was published on 12 September with 22 written submissions received. A stakeholder workshop was held in Sydney on Wednesday 4 October. We also held several separate meetings with stakeholders. We thank all stakeholders for their submissions and input into the review.

We also worked closely with the AER throughout the review and thank them for their assistance.

Background

Embedded networks are private electricity networks[1] which serve multiple customers and are connected to another distribution or transmission system in the national grid through a parent connection point. A party, other than the registered local network service provider (LNSP), owns and operates the private electricity network that customers connect to. The party is known as an embedded network service provider. Generally, the embedded network service provider also purchases electricity at the parent connection point and on-sells it to customers within the embedded network.

Common examples of embedded networks include shopping centres, retirement villages, apartment complexes and caravan parks. Embedded networks may occur as new developments or retrofits of existing buildings. In addition they may, or may not, have distributed energy resources such as solar photovoltaic (PV) panels, battery storage, or diesel generators located within them.

Embedded network service providers must be exempted from registration as a network service provider. A party that wishes to sell energy within the embedded network must hold a retailer authorisation from the Australian Energy Regulator (AER), or be exempted by the AER from holding a retailer authorisation.

The growth in embedded networks means an increasing number of customers are being supplied under different regulatory arrangements and consumer protections than customers that have a standard network connection. We estimate there are currently over 200,000 embedded network customers.

The AEMC was requested by the Council of Australian Governments (COAG) Energy Council to undertake a review of the regulatory arrangements for embedded networks in the National Energy Retail Law (NERL) and the National Energy Retail Rules (NERR). In doing this, we were asked to identify and assess any issues for, and the experience of, embedded network customers under the current NERL and NERR and to identify appropriate solutions to any identified problems. We have also been requested to consider broader issues relating to how embedded networks are regulated under the National Electricity Law (NEL), National Electricity Rules (NER), National Gas Law (NGL) and National Gas Rules (NGR).

The regulatory framework is no longer fit for purpose

The number of embedded networks has grown significantly in recent years. A range of business models to provide embedded network services have emerged and developments in technology, including distributed generation and energy storage, also mean the configuration of, and arrangements within, embedded networks are increasingly complex. These developments have brought both opportunities for innovation and new risks for consumers.

The AEMC has found that the exemption framework is no longer fit for purpose in the face of the growth in number and scope of embedded networks. The Commission does not consider an appropriate balance between innovation, consumer protection, and access to retail market competition is being achieved in the current framework which largely regulates embedded network service providers and exempt sellers outside of the national framework of the NER and NERR.

We have found embedded network customers receive a lesser level of consumer protections and a limited monitoring and enforcement regime 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.

We have also found significant practical barriers to customers in embedded networks accessing retail market competition, which means that embedded network customers have limited ability to change supplier if they are unhappy with the price they are paying or level of service that they are receiving. In addition, there are a number of provisions of the NERL and NERR that do not operate effectively for embedded networks.

The recommendations in this report are not intended to create a barrier to the continued operation and establishment of embedded networks where they offer benefits to consumers. Instead, the intention is to provide customers in embedded networks with appropriate consumer protections and increased access to retail competition.

Provided that they are appropriately regulated, the Commission considers that embedded networks can provide benefits to consumers by way of discounted prices and non-price benefits such as multi-service offerings, more environmentally sustainable housing and improved access to embedded generation. However, due to a lack of competitive pressure and appropriate consumer protections, the Commission considers that many embedded network consumers are not currently receiving benefits from these arrangements.

Consequently, we recommend that the existing regulatory framework should be changed so it remains fit for purpose in the face of the growth in number and scope of embedded networks. This would also promote greater alignment of regulation for retailers and network service providers of standard supply customers and embedded network customers.

Recommendations

1. The law and rules should be amended to implement a new regulatory framework for embedded networks. The AEMC will commence work on developing detailed advice on implementing the proposed framework set out in this final report (see Table 1), including preparing and consulting on a description of the law changes and draft rule change requests, unless advised otherwise by the COAG Energy Council by July 2018. Implementing the proposed regulatory framework will require an inter-dependent package of law and rule changes to:

   - improve access to retail market competition for embedded network customers through new requirements for most legacy, and all new embedded network customers, to be visible in MSATS and establishing standard network charging arrangements

     elevate new embedded networks into the national regulatory framework by requiring registration of embedded network service providers, requiring on-sellers to hold a retailer authorisation and extending Metering Coordinator, Metering Provider and Metering Data Provider responsibilities to embedded networks

   - narrow the network service provider and selling exemption frameworks to apply to circumstances where the costs of registration as an embedded network service provider and retailer authorisation would outweigh the benefits to consumers and the need for regulatory oversight is low

   - enhance consumer protections through improving the AER's ability to monitor and enforce exemption conditions, making the NERL and NERR work for embedded network customers supplied by an authorised retailer and improving the information provided to consumers entering embedded networks or involved in a conversion of a property to an embedded network.

2. The COAG Energy Council should**:**

   - review the penalty amounts for infringement notices and act upon its previous work in this area (see Section 9.2.5)

   - advise the AEMC by July 2018 whether the embedded network service provider registration framework should apply to gas embedded networks in order that a single package of electricity and gas law and rule changes can be developed and implemented (see Section 6.6).

3. The AER should:

   - consider how monitoring can be increased under its current functions and powers (see Section 9.2.5)

   - amend its retail exemption guideline to require exempt sellers 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) (see Section 9.5.2)

- consider any updates needed to the network exemption guideline to reflect relevant requirements for brownfield conversions in the retail exemption guideline (see Section 9.5.3).

4. Jurisdictions should**:**

- review jurisdictional strata laws and make any necessary changes to remove barriers to embedded networks customers accessing retail market offers (see Section 5.1.5)
- review whether jurisdictional safety and reliability monitoring regimes for embedded networks and similar shared electrical infrastructure remain appropriate (see Section 5.1.5)
- work with Ombudsmen to continue to develop required changes to state instruments to increase access to energy specific, independent dispute resolution services for exempt customers (see Section 9.2.1)
- consider options for improving awareness of entitlements and access for embedded network customers (see Section 9.2.2)
- 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 (see Section 9.5.1).

Note that recommendations 2 to 4 can be implemented prior to the commencement of the new regulatory framework referred to in recommendation 1.

Table 1 Summary of key features of new regulatory framework for embedded networks

Improving access to retail market competition in *legacy* and *new* embedded networks		
Area	**Details**	**Changes**
Make more embedded network customers market facing and standardise network billing arrangements	Embedded Network Managers be required to: • apply to AEMO for NMIs for off-market metering installations • register the NMI for off-market metering installations with AEMO (i.e. through MSATS) • maintain information in the metering register (i.e. NMI standing data through MSATS) about whether the meter complies with the current NEM requirements. In legacy embedded networks, this is proposed to only apply where the AER has required an Embedded Network Manager be appointed by the exempt network service provider.	NER
	Embedded network service providers to be required to charge the retailer no more than the external network charge that would have been charged by the LNSP if the customer had been directly connected to the LNSP's network.	NER
Elevating *new* embedded networks into the national framework		
Area	**Details**	**Changes**
Registration of embedded network service providers and authorisation of on-selling retailers	Embedded network service providers to be registered with AEMO unless exempted by the AER according to a narrow set of circumstances.	NER
	Any party who sells energy to a consumer in an embedded network to hold a retailer authorisation from the AER or be exempted by the AER from holding a retailer authorisation according to a narrow set of circumstances.	NERL and NERR
Roles and responsibilities in new embedded networks – to further facilitate switching between market and off-market retail offers	On-selling authorised retailer to appoint a Metering Coordinator at off-market connection points.	NER
	Metering Coordinator, Metering Provider and Metering Data Provider responsibilities to be extended to new embedded networks.	NER
	An Embedded Network Manger to be appointed for all new embedded networks.	NER

Embedded network service provider registration framework and exemption framework	Create an embedded network service provider sub-category of network service provider, which would provide for an appropriate sub-set set of rights and obligations.	NEL
	Place a proportionate set of standards and obligations on the role of embedded network service provider.	NER
	Narrow the network service provider exemption framework by: • introducing a principles based exemption framework which restricts exemptions to where the cost of registration would be high compared to the benefits to consumers and the requirement for regulatory oversight is low • providing direction to the AER that exemptions are restricted to distribution systems that: - only supply particular classes of customers including large customers and large corporate entities - predominantly supply customers in temporary accommodation - supply particular classes of infrastructure that the AER considers an exemption meets the NEO - the AER considers an exemption meets the NEO.	NER
Retailer authorisation framework and selling exemption framework	Establish a sub-category of on-selling authorised retailer which would provide for an appropriate sub-set of rights and obligations.	NERL
	Require all authorised retailers to provide an appropriate set of consumer protections for embedded network customers.	NERL and NERR
	Narrow the selling exemption framework by: • removing the exempt seller and exempt customer factors in the NERL and replacing these with a principles based exemption framework which restricts exemptions to where the cost of authorisation would be high compared to the benefits to consumers and the requirement for regulatory oversight is low • providing direction to the AER by including the following exemption criteria in the NERR: - selling to customers in short term accommodation - temporary energy services on the same or adjacent property - unmetered residential consumption of electricity - selling to related (parent or subsidiary) companies on same property - selling in conjunction with or ancillary to provision	NERL and NERR

	of infrastructure services - selling exclusively to large customers or large corporate entities - selling between government agencies on the same property - circumstances where the AER considers an exemption meets the NERO.	
Consumer protections, monitoring and enforcement in *legacy* and *new* embedded networks		
Area	**Details**	**Changes**
Better monitoring and enforcement	Specify a role for the AER to monitor embedded network service provider and exempt selling behaviour. Such a role should include flexibility so that the AER can examine the conduct of particular sellers as required.	NERL
	Align enforcement options for network exemption breaches, including breaches of conditions more closely with the enforcement powers for retail exemption breaches.	NEL
Make the NERL and NERR work for embedded network customers supplied by an authorised retailer (retail customers)	Generally review and address regulatory gaps in the NERL and NERR for retail customers in embedded networks which include: • requiring all retailers supplying off-market embedded network customers to offer to supply to all customers within an embedded network they are operating in • requiring all retailers supplying off-market embedded network customers to charge these customers no more than the standing offer price of the local area retailer • aligning the de-energisation and re-energisation rules for retail customers in embedded networks with standard supply customers. • aligning the life support rules for retail customers in embedded networks with standard supply customers.	NERL and NERR
Improve information provision	Require authorised retailers to provide additional information on costs, benefits and risks to embedded network customers prior to the formation of an energy contract.	NERR
	Require authorised on-selling retailers to publish their prices on their websites in line with other authorised retailers.	NERR
	Elevate the information provision and other requirements for brownfield conversions into the law and rules.	NEL, NER, NERL and NERR

Abbreviations and key terms used in this report

Network related terms

Embedded network: The NER defines an embedded network as a distribution system, connected at a parent connection point to either a distribution system or transmission system that forms part of the national grid, and which is owned, controlled or operated by a person who is not a network service provider.

Embedded network operator: A term commonly used to describe the party that owns, controls or operates an embedded network, and commonly also on-sells electricity to customers within that embedded network, under exemptions from the AER from being a registered network service provider or holding a retailer authorisation.

Embedded network manager: The National Electricity Amendment (Embedded Networks) Rule 2015 introduces a new accredited provider role, the embedded network manager, into the NER to be responsible for performing market interface services for embedded network customers. This rule comes into effect on 1 December 2017.

Exempt embedded network service provider: Section 13 of the NEL and clause 2.5.1(d) of the NER defines an exempt embedded network service provider as a person who engages in the activity of owning, controlling or operating an embedded network under an exemption granted or deemed to be granted by the AER.

Local network service provider: The NER defines a local network service provider as a network service provider to which a respective geographical area has been allocated by the authority responsible for administering the jurisdictional electricity legislation in the relevant participating jurisdiction.

Network service provider: Chapter 2 of the NER defines a network service provider as a person who engages in the activity of owning, controlling or operating a transmission or distribution system and who is registered by AEMO as a network service provider.

Registered embedded network service provider: A person who engages in the activity of owning, controlling or operating an embedded network and who, under the changes proposed in this report, is registered by Australian Energy Market Operator (AEMO) as an embedded network service provider.

Retail related terms

Authorised retailer: A retailer authorised by the AER under the NERL to engage in the activity of selling energy (electricity or gas) to a person for premises.

Authorised on-selling retailer: Authorised retailer on-selling energy purchased

at a parent connection point to customers in an embedded network.

Exempt seller: The NERL[2] defines an exempt seller as a person who is exempted by the AER from the requirement to hold a retailer authorisation.

Market retailer: An authorised retailer that purchases electricity in the national electricity market and sells it to an embedded network customer.

Market offer: As defined in section 2 of the NERL, a market offer is an offer by an authorised retailer to a small customer to provide customer retail services under a market retail contract.

Customer related terms

Exempt customer: The NERL[3] defines an exempt customer as a person to whom an exempt seller sells energy and who would be a retail customer of the seller if the seller were an authorised retailer.

Retail customer: The NERL[4] and the NERR[5] define a retail customer as a person who is a customer of an authorised retailer.

Small customer: As defined in section 5(2) of the NERL, a 'small customer' is a customer who is a residential customer; or who is a business customer who consumes energy at business premises below the upper consumption threshold.

Standard supply customer: A customer whose electrical supply is connected to a distribution system that is owned and operated by a distribution network service provider (DNSP) and whose retail services are provided by an authorised retailer.

Other terms and definitions

Off-market activity: Under an off-market arrangement an exempt seller or authorised retailer on-sells electricity purchased at a parent meter from the NEM to an embedded network customer. This is known as "off-market" activity because there is no financially responsible market participant at the customers' connection point and the customer's electricity consumption is not settled in the national electricity market.

On-market activity: Under on-market arrangements within embedded networks, an authorised retailer purchases electricity in the national electricity market and sells it to the embedded network customer. The authorised retailer provides retail services, and metering services are arranged by the financially responsible market participant (the metering coordinator from 1 December 2017). This type of arrangement is known as "on-market" activity because there is a financially responsible market participant at the customer's connection point and the customer's metered consumption is settled in the market.

On-selling: On-selling is an arrangement where a person purchases electricity

2 Clause 2(1) of Division 1 of Part 1.

3 Section 109.

4 s. 109.

5 s. 148.

from the national electricity market and they, or a person acting on their behalf, sells the electricity to others. On-selling is an off-market activity.

Network exemption guideline: The Electricity Network Service Provider - Registration Exemption Guideline published by the AER.[6]

Retail exemption guideline: The AER (Retail) Exempt Selling Guideline published by the AER.[7]

6 Version 5 is available here: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/network-service-provider-registration-exemption-guideline-december-2016

7 Version 4 is available here: https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/retail-exempt-selling-guideline-march-2016

Contents

1 Introduction

This chapter sets out:

- the terms of reference for this review
- background
- other related work
- the structure of the draft report.

1.1 Terms of reference

In December 2016, the AEMC received a terms of reference from the COAG Energy Council for a review of arrangements for embedded networks under the NERL and NERR, in response to the Commission's recommendations in the final rule determination on the Embedded networks rule change request.

The purpose of the review was to identify and assess any issues for embedded network customers under the NERL and NERR and identify appropriate solutions. This included an analysis of barriers in the NERL and NERR in relation to embedded network customers accessing offers from competing retailers. The COAG Energy Council asked the AEMC to determine whether current regulatory arrangements under the NERL and NERR for embedded network customers remain appropriate and recommend whether any further work, including rule changes, are necessary to address the identified issues.

The COAG Energy Council also stipulated that the review should consider the broader issues, and consequential changes, related to embedded networks in the NEL, NER, NGL and NGR set out in the AEMC's final rule determination on the Embedded networks rule change request. These broader issues included the appropriateness of the two tiered regulatory framework for embedded networks, arrangements for gas embedded networks, the potential for embedded network customers to currently receive lesser consumer protections than standard supply customers, and issues raised by consumer groups.

The AEMC was asked to have regard to the national energy retail objective (NERO) and the broader work being undertaken by the COAG Energy Council on energy market transformation.

The terms of reference required the AEMC to consider options that:

- support competition where effective
- take into account the cost of regulation and support for a range of supply and service models
- take into account the impact of current arrangements on vulnerable consumers particularly in situations where other retail offers are not accessible
- aim to ensure regulatory frameworks are fit for purpose and sufficiently flexible to cope with the effects of emerging technologies and market innovation
- enable consumers to benefit from innovative services while mitigating any risks.

Finally, the terms of reference required a draft report be published by 15 September 2017 and a final report by December 2017.

1.2 Background

Embedded networks have been considered in other reviews completed by the AEMC, including the *Energy market arrangements for electric and natural gas vehicles*[8] and the *Power of choice review*.[9] In regard to embedded networks, the reports recommended changes to clarify the relevant metering and other arrangements, and reduce the barriers to embedded network customers accessing retail market offers.

Following these recommendations, AEMO submitted a rule change request on embedded networks to the AEMC. The AEMC made a final rule on 17 December 2015 in response to this rule change request.

The changes to the NER set out in the National Electricity Amendment (Embedded Networks) Rule 2015 (the Embedded networks rule) create a new accredited provider role – the embedded network manager – to perform the market interface functions that link embedded network customers to the NEM systems. The market interface functions assigned to the embedded network manager relate to the access and maintenance of standing data in the Market Settlement and Transfer Solutions (MSATS) system, which in turn affects B2B procedures. Addressing these issues through the new embedded network manager role will reduce these barriers for embedded network customers accessing competitive retailer services from authorised retailers.

The AEMC was limited by its rule making power to make changes only to the NER because the rule change request had been made under the NEL and set out proposed changes to the NER. The rule change request did not propose any changes to the NERR. Consequently, the Commission was unable to address any issues in relation to the NERR.

Accordingly, the Commission's final rule determination set out a number of issues regarding embedded networks in relation to the NERR that may potentially benefit from amendment. These issues arise because the NERL and NERR are designed on the basis of the tripartite relationship that typically exists between a customer, its retailer and its local network service provider. This relationship does not exist for embedded network customers because the customer does not have a relationship with the local network service provider. Instead the customer has a relationship with the embedded network operator.

The final rule determination also outlined a number of other problems with the regulatory arrangements for embedded networks. These had been identified by stakeholders during the course of the rule change process, in submissions to the Commission's annual retail competition reviews and in reports by consumer groups.

8 AEMC, Energy market arrangements for electric and natural gas vehicles, final advice, December 2012, p. 38.

9 AEMC, Power of choice review - Giving consumers options in the way they use electricity, final report, November 2012.

Some of these issues related to the NERL and NERR, while others related to the NEL, NER, NGL, NGR and jurisdictional instruments.[10] These broader issues include:

- issues with the two tiered regulatory system of registered network service provider/authorised retailer and exempt network service provider/exempt retailer
- issues regarding gas embedded networks
- the potential for lesser consumer protections for off-market embedded network customers and problems accessing hardship schemes and ombudsman services
- issues raised by research undertaken by consumer groups surveying the experience, outcomes and problems of consumers within embedded networks.

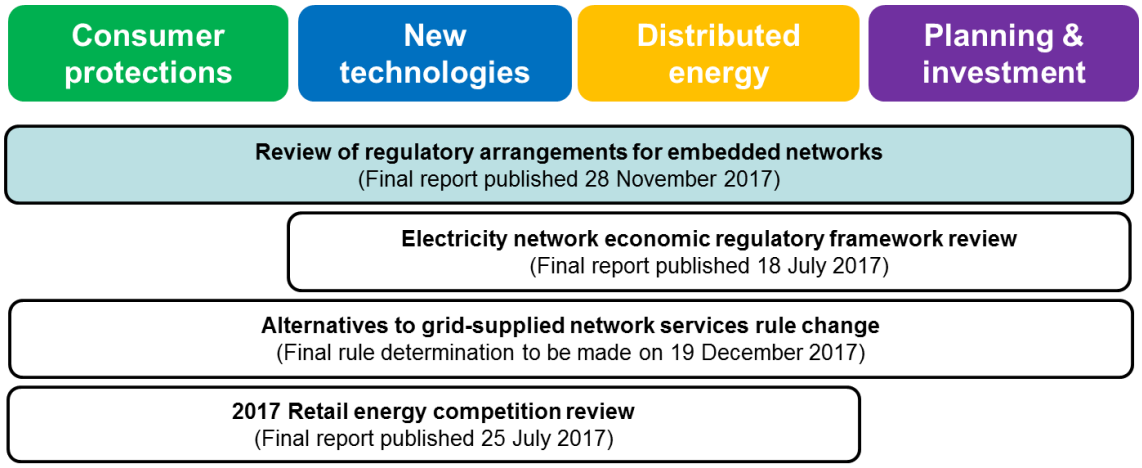
These issues were beyond the scope of the Embedded networks rule change request. The Commission therefore recommended the COAG Energy Council request that the Commission undertake a review of the NERL and NERR to identify and assess the issues regarding the arrangements for embedded network customers. The Commission also recommended the COAG Energy Council consider whether the recommended AEMC review should also consider, and provide recommendations on, broader embedded network issues.

1.3 Other related work

The terms of reference asked the AEMC to have regard for the broader work being undertaken by the COAG Energy Council on energy market transformation. This subsection notes related work being undertaken under this banner and other related work by the Commission and other bodies.

There are a number of rule changes and reviews being undertaken by the Commission that are ongoing and related to this review. Figure 1.1 displays these projects, the topics they cover and their timing.

Figure 1.1 Related projects



10 AEMC, National Electricity Amendment (Embedded Networks) Rule, final rule determination, 17 December 2015, p. 68.

The Commission closely coordinated and linked policy and legal issues across these projects.

The COAG Energy Council is also progressing a work program to consider appropriate policy and regulatory responses to addressing key issues in the electricity market relating to new technology, innovation and market change.

The Victorian Government has also reviewed their exemption framework under their jurisdictional legislation.

A summary of each of these projects is set out below.

2017 retail energy competition review

The report on the AEMC's 2017 retail competition review[11] was published on 25 July 2017 and chapter 9 included analysis relating to the growth in embedded networks and the different business models that have evolved to provide services under the exempt network service provider and exempt seller framework. The evidence base produced by this analysis informed this review.

Distribution market model

On 22 August 2017, the AEMC published the final report on its Distribution Market Model project. The report sets out the key characteristics and enablers of a future where investment in and operation of distributed energy resources to be optimised to the greatest extent possible, as well as a number of findings representing short-term actions that can be taken to advance the development of distribution systems and more readily incorporate distributed energy resources into our market. The Commission considers that any evolution of distribution systems needs to be driven by consumers (or their chosen energy service providers).

Electricity network economic regulatory framework review

In August 2016, the COAG Energy Council tasked the Commission with monitoring developments in the energy market, including the increased uptake of decentralised energy services. The Commission is required to publish its findings annually.

The Commission published its report on 18 July 2017.[12] The Commission used the first report to review the operation of the economic regulatory framework, how it has evolved against the backdrop of change in the past decades and identified areas that may require further investigation in future reports. As the first report of the annual review, the 2017 report provides a foundation for assessing the performance of the framework, rather than recommending changes. Areas that warrant further investigation and monitoring in future editions of the review include:

- network service providers' financial incentives in delivering economically regulated services
- continual implementation of network pricing reform

11 AEMC website, project webpage, http://www.aemc.gov.au/Markets-Reviews-Advice/2017-Retail-Energy-Competition-Review, Final report.

12 ibid.

- the changing role of distribution networks, as outlined in the Commission's work on the distribution market model project.

Alternatives to grid-supplied network services rule change

In September 2016, Western Power submitted a rule change request[13] that seeks to allow DNSPs to provide electricity services that are not physically connected to the network, and to receive regulated revenue for these services. The request relates to microgrids and individual power systems (as defined in section 4.1) and does not cover embedded networks. It proposes amendments to the definition of 'distribution service' which would affect how these services are classified. The AEMC published a draft rule determination on 26 September 2017, deciding not to make a draft rule on alternatives to grid-supplied network services at this time.

Projects in implementation phase

AEMO is currently implementing the Embedded networks and Expanding competition in metering and related services rule changes that were made by the Commission, and which are closely linked to this review. Information on these completed rule changes is available on our website.[14] Of particular relevance to this review is the final rule determination on the Embedded networks rule change, which was made on 17 December 2015 and will commence on 1 December 2017.

COAG Energy Council's Energy Market Transformation work program[15]

In December 2015, the Energy Council endorsed an Energy Market Transformation work program to consider appropriate policy and regulatory responses to addressing key issues in the electricity market relating to new technology, innovation and market change. This work is complementary to the other work being done by the Energy Council to better integrate energy and climate policies and seeks to address four key areas:

- enhanced competition and innovation
- empowering consumers
- ongoing power system security
- efficient investment and operation of electricity infrastructure.

As part of this work program, the COAG Energy Council released three consultation papers in August 2016 on stand-alone systems, consumer protections and energy (battery) storage. The Commission made submissions on each of these papers.[16]

---

13 AEMC website, project webpage, http://www.aemc.gov.au/Rule-Changes/Alternatives-to-grid-supplied-network-services, Rule change request.

14 AEMC website, project webpages, http://www.aemc.gov.au/Rule-Changes/Embedded-Networks and http://www.aemc.gov.au/Rule-Changes/Expanding-competition-in-metering-and-related-serv.

15 COAG Energy Council website, Energy market transformation webpage, http://www.coagenergycouncil.gov.au/council-priorities/energy-market-transformation.

16 AEMC website, corporate publications webpage, http://www.aemc.gov.au/About-Us/Resources/Corporate-publications, AEMC submission on consumer protections behind the

In August 2017 the Energy Market Transformation Project Team published a work program update noting outcomes and further work in these areas.[17]

The Victorian Government General Exemption Order (GEO) review

The Victorian Government has undertaken a review of the GEO, which provides for exemptions from the requirement to hold an electricity licence for certain activities in Victoria, including embedded networks. A final position paper and draft GEO for stakeholder comment were published by the Department of Environment, Land, Water and Planning on 28 August 2017.[18] The final position includes that "embedded networks serving multiple strata title lots should cease to be protected by the GEO and should be transitioned to an appropriately designed licensing framework administered by the ESC [Victorian Essential Services Commission]".[19] The GEO was updated on 15 November 2017 with changes coming into effect in 2018.[20]

1.4 Structure of the report

The draft report is set out as follows:

- Chapter 2 outlines the approach to the review and assessment framework
- Chapter 3 explains the evolution of embedded network business models and regulation
- Chapter 4 provides a background of the regulatory framework for embedded networks
- Chapter 5 sets out the issues we have identified concerning embedded networks
- Chapter 6 summarises our findings and proposed new regulatory approach
- Chapter 7 explains our recommendations for further improving access to retail competition within legacy embedded networks
- Chapter 8 explains our recommendations for elevating embedded networks into the national framework
- Chapter 9 explains our recommendations for improving customer protections for new and legacy embedded networks.

meter consultation, AEMC submission on energy storage registration consultation paper, AEMC submission on stand-alone energy system consultation paper, 4 November 2016.

17 COAG Energy Council website, Publications webpage, http://www.coagenergycouncil.gov.au/publications/energy-market-transformation-bulletin-no-05-%E2%80%93-work-program-update.

18 Victoria State Government, Department of Environment, Land, Water and Planning, General exemption order review webpage, accessed 29 August 2017: https://www.energy.vic.gov.au/legislation/general-exemption-order-review

19 Victoria State Government, Department of Environment, Land, Water and Planning, Review of the Victorian Electricity Licence Exemptions Framework, Final position paper, p. 38.

20 State of Victoria, *Victoria Government Gazette*, No. S 390, 15 November 2017, Blue Star Print, Melbourne.

2 Assessment framework

This chapter discusses the objectives and the criteria we used to assess the current framework for regulating embedded networks and design a proposed new framework.

2.1 Relevant aspects of the national energy objective

We decided to have regard to the objectives under all three sets of national energy laws because the review involved considering potential changes to them all: the NEL and NER for electricity, the NGL and NGR for gas, and the NERL and NERR for retail energy services.

Although the objectives of these laws and rules have some differences, at the heart of them all is the promotion of the long term interests of consumers.

The NERO is:[21]

> "to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy."

In addition, under the NERL the Commission must, where relevant:[22]

> "satisfy itself that the Rule is compatible with the development and application of consumer protections for small customers, including (but not limited to) protections relating to hardship customers."

This is referred to as the consumer protection test.[23]

> "to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system."

The NGO is:[24]

> "to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

Based on our assessment of the terms of reference for the review, the relevant aspects of the NERO, NEO and NGO are the promotion of efficient investment in, and operation of energy/electricity/natural gas services for the long term interests of

21 NERL, s. 13.

22 NERL, s. 236(2)(b).

23 NEL s. 7.

24 NGL, s. 23.

consumers of energy/electricity/natural gas with respect to price, quality, safety and reliability. For example, the regulatory arrangements for embedded networks may affect the price consumers pay and the quality of service they receive. Safety and reliability are also relevant, particularly where embedded networks include large amounts of generation and energy storage. We also considered the consumer protection test in developing our recommendations.

For a detailed discussion on the Commission's approach to applying these overarching objectives to reviews and rule making processes, such as this one, refer to Applying the energy objectives: A guide for stakeholders.[25]

2.2 Criteria derived from the objectives

We adopted the following criteria to assess the regulatory arrangements for embedded networks and determine if further work, including law and rule changes, are necessary to address identified issues:

- Do the regulatory arrangements facilitate competition and consumer choice in energy services and products?
- Are the regulatory arrangements clear, consistent and transparent?
- Do appropriate consumer protections and compliance mechanisms apply within embedded networks?
- Do the regulatory arrangements promote efficient investment and allocation of risks and costs?
- Are the regulatory arrangements proportional to the risks they seek to mitigate?

2.2.1 Facilitating competition and promoting consumer choice in energy services and products

Competition is a key driver of productivity and efficiency in markets, driving lower prices and improved choices for consumers in the long run. This is because, where competition is effective, over time businesses have incentives to innovate, minimise costs, provide competitive prices, provide a quality of service matching customer expectations and a choice of services consistent with consumer preferences.

An effective regulatory framework should be sufficiently flexible to encourage emerging technologies and services, thus promoting competition. Consequently, our assessment of options has considered:

- the degree to which the regulatory framework for embedded networks promotes or hinders innovation and competition in the retail market for electricity and gas services
- whether changes are necessary to assist embedded network customers' ability to access competitive retail offers.

25 AEMC, Applying the energy objectives: A guide for stakeholders, 1 December 2016.

2.2.2 Clarity, transparency and predictability

The regulatory framework for embedded networks needs to be transparent and result in predictable outcomes for all participants. The regulatory framework for embedded networks should provide a clear, understandable set of rules to encourage effective participation in the market.

Consumers and businesses need to understand what their protections and obligations are and what others' obligations are with respect to the transactions they undertake. This should promote confidence in the regulatory framework and encourage effective participation.

Consumers should have access to sufficient information to make informed and efficient decisions. For example, for consumers within embedded networks to exercise choice between retailers and embedded network operators they need access to relevant information to compare prices between each. Also, clear information around the consumer protections which apply when being supplied within an embedded network would assist consumers in making decisions about entering an embedded network or consenting to their existing arrangements being converted to an embedded network.

A clear and transparent regulatory framework creates confidence in the market which should also encourage investment and innovation in providing embedded network services.

2.2.3 Appropriate consumer protections

The NERL states that exempt customers should, as far as practicable, not be denied consumer protections afforded to retail customers under the NERL and NERR.[26]

Therefore, our assessment of options has considered:

- the extent to which the regulatory arrangements for embedded networks provide for equivalent consumer protections to be extended to customers in embedded networks
- whether additional protections are appropriate for embedded network customers given the choices they have available
- the appropriateness of the current mechanisms for compliance and enforcement of consumer protections within embedded networks.

2.2.4 Efficient investment and allocation of risks and costs are promoted

The regulatory framework for embedded networks should encourage innovation and promote efficient investment in network infrastructure and the supply of energy services. Efficient incentives usually arise where risks and costs are appropriately allocated. The placement of risk should lead to:

- *mitigation of risk* - the consequences of that risk should it materialise (that is, the potential for loss - either in a financial or a physical sense) being avoided or lessened

26 NERL, s. 114(1)(c).

- *incentives to improve risk management over time* - this involves allocating risk to a party who can, relative to others, better manage the consequences of that risk.

As a general rule, risks should be borne by, or allocated to, parties who are in the best position to manage them and have the incentives to do so. Therefore, our assessment of options has considered how costs and risks are allocated between exempt network service providers, exempt sellers and consumers and options that might improve the appropriateness of risk allocation.

2.2.5 Proportionality and regulatory burden

Competition and market signals often help protect and provide the best outcome for consumers. However, regulation may be necessary in the case of market failure or to safeguard safe, secure and reliable supply of energy to consumers. Therefore, we considered whether the existing regulatory framework appropriately addresses any market failures or risks arising from the evolution and growth of embedded networks and the extent to which increased regulatory oversight and intervention might be necessary.

Where arrangements are complex to administer, difficult to understand, or impose unnecessary risks, they are less likely to achieve their intended ends, or will do so at higher cost. Therefore, our assessment of options has considered whether the administrative and compliance burden created by our recommendations is likely to be proportional to the benefits it is seeking to achieve.

3 Evolution of embedded networks

Embedded networks have become an increasingly popular way for energy to be distributed and sold to consumers in the NEM. The number of embedded networks in residential developments has grown considerably in recent years reflecting a shift in preferences for housing towards higher-density living within 'smart cities' and 'smart communities.'[27] Technologies such as distributed generation and energy storage are also being leveraged into the design of many embedded networks to promote these 'smart' developments. The growth in this market segment has potential to provide opportunities for innovative new service offerings for consumers, but also present some risks.

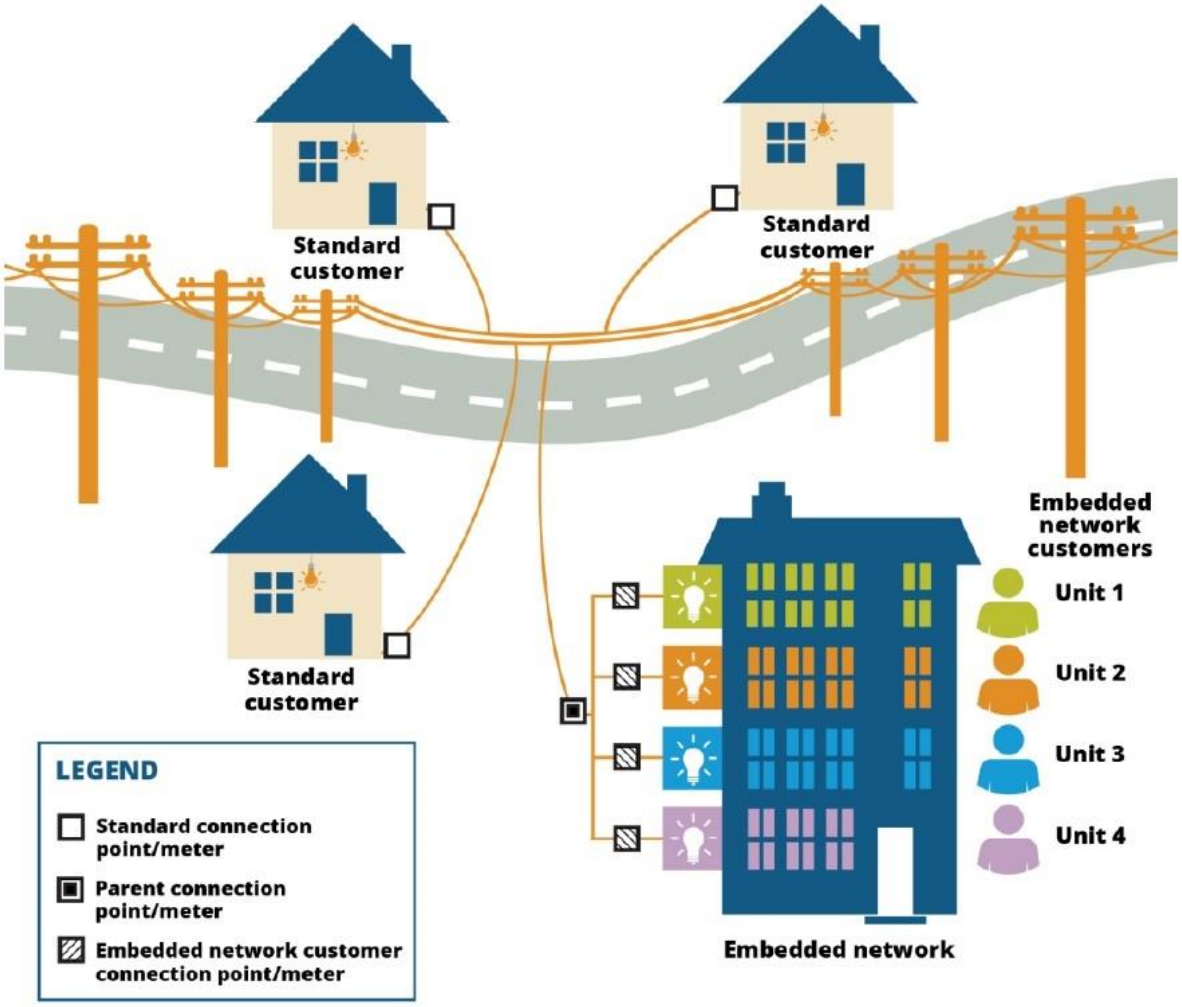
This chapter provides an overview of the evolution of the embedded networks sector and the exemptions regime over time. It sets out findings on the scale and nature of embedded networks in the NEM and emerging business models.

3.1 Embedded networks

An embedded network is a privately owned, operated or controlled electricity or gas network. In an embedded network a party other than a local network service provider (LNSP) owns and operates the private network that customers connect to. That party is known as an embedded network service provider. In many instances, the embedded network service provider or a related party also sells energy to consumers within the embedded network. Instead of individual consumers in the embedded network buying energy from an authorised retailer, commonly, the embedded network service provider (or third party exempt seller) purchases all the energy at a bulk rate (typically at a lower cost than would be available to individual small consumers) from an authorised retailer and then on sells this energy to the individual downstream consumers.

27 Smart cities and communities refers to an urban development vision to better integrate information technologies into long-term investment and coordinated planning decisions to promote positive outcomes in environment, employment, housing, and transport. See: Department of the Prime Minister and Cabinet website, Smart cities plan webpage, https://cities.dpmc.gov.au/smart-cities-plan.

Figure 3.1 Embedded electricity network connection points



The configuration of an embedded network with on sold energy differs from the traditional model of retail supply for a standard customer (see Figure 3.1).

The standard customer in Figure 3.1 has an individual meter and a connection point that connects them directly to the LNSP's network. The standard customer is able to choose their energy retailer. Their chosen retailer sells them energy and, in the same bill, passes on the LNSP's charges.

In contrast, the embedded network has a parent meter and a single 'parent' connection point that connects the embedded network to the LNSP's network. The embedded network service provider also commonly on sells energy to multiple consumers within the private (embedded) network through separately metered connections.[28] Typical

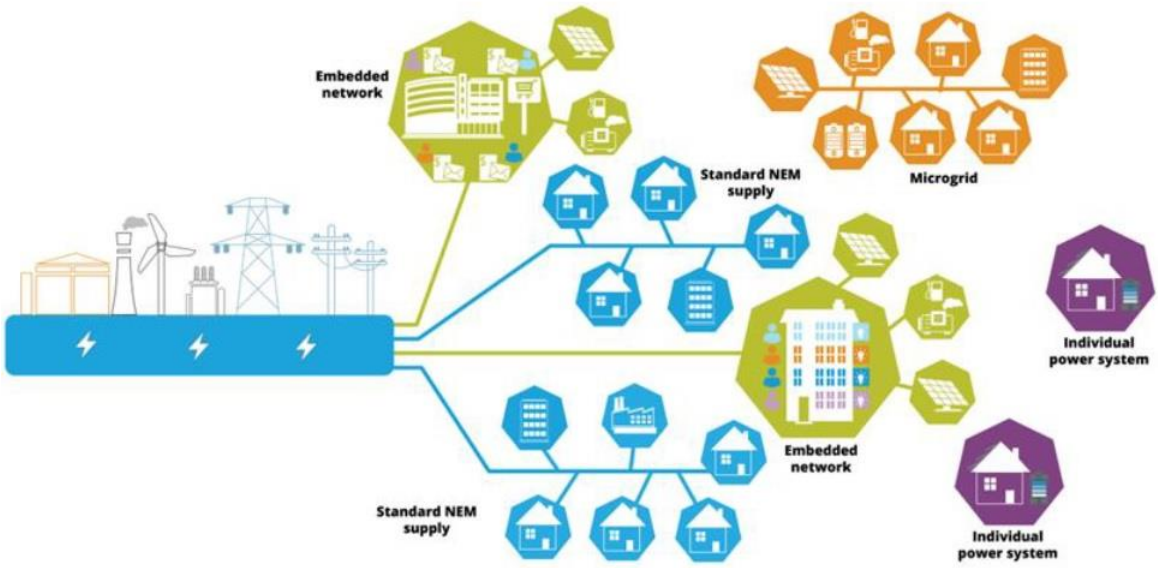
28 Section 11(2) of the NEL specifies that a person must not engage in the activity of owning, controlling or operating, in the relevant jurisdiction, a transmission system or distribution system that forms part of the interconnected national electricity system unless the person is a Registered participant in relation to that activity, or the person is the subject of a derogation that exempts the person, or is otherwise exempted by the AER from the requirement to be a Registered participant in relation to that activity. In 2015, the AEMC made a final rule to introduce new definitions into Chapter 10 of the NER. It defined an embedded network as 'a distribution system, connected at a parent connection point to either a distribution system or transmission system that forms part of the national grid, and which is owned, controlled or operated by a person who is not a Network Service Provider.' It also defines a parent connection point as 'the connection point between an

examples of embedded networks include some caravan parks, retirement villages, shopping centres and apartment buildings.

Traditionally, in situations like apartment buildings, where there are multiple tenants or residents, there were few network exemptions and most installations had no parent meter. Rather, the wiring in such buildings has been regarded as connecting those customers directly to the LNSP's network.[29] Consequently, it has commonly been treated as 'connection assets' and not as constituting an embedded network[30], with end use consumers treated by retailers and LNSPs in the same way as other standard customers. This traditional arrangement has been standard industry practice since the commencement of the NEM.[31]

An embedded network's connection to the national grid distinguishes it from two other types of electricity supply, namely microgrids and individual power systems (IPS), which are not grid-connected (see Figure 3.2). A grid connection results in embedded networks being regulated under the NEL and the NER, while off-grid supply arrangements are not regulated under either the NEL or the NER.

Figure 3.2 Various models of electricity supply



embedded network and a Network Service Provider's network' and defined a child connection point as 'the agreed point of supply between an embedded network and an electrical installation, generating unit or other network connected to that embedded network, for which a Market Participant is, or proposes to be, financially responsible.' These definitions came into effect 17 December 2015.

29 AER, AER Electricity Network Service Provider - Registration Exemption Guideline, Version 5, December 2016, p. 14, footnote 4.

30 ibid.

31 ibid.

3.2 Scale of embedded networks in the NEM

The number of embedded networks in the NEM has grown rapidly in recent years. Embedded networks in the residential apartment market are the primary driver of this growth.[32]

Across the NEM, the total number of (registered) network exemptions at the start of August 2017 was 3,390, while the number of retail exemptions was 2,733.[33] This includes all commercial, industrial and residential activities, excluding retail exemptions from Victoria. This number, and the information in the table below, only includes registered exemptions and does not include embedded networks that receive deemed exemptions, meaning that the total number of embedded networks in the NEM is expected to be much greater than this. The exemption arrangements mean that no information is available about embedded networks operating or selling energy under deemed exemptions, and this lack of information is a significant drawback of the current exemption system.

Table 3.1 Registered exemptions as at 2 August 2017[34]

Jurisdiction	Exempt Sellers	Network Exemptions
Queensland	1,858	1,767
New South Wales	601	475
ACT	161	16
Victoria	Not available	774
South Australia	548	348
Tasmania	145	5
Total	2,733	3,390

Source: AER public register of network exemptions and retail exemptions

The number of embedded network sites with a residential component accounts for just under half of all network exemptions. The other exemptions relate to commercial and industrial sites such as airports, mines, hotels, hospitals, and shopping centres. These involve no residential activity, and all energy consumers in the embedded network are commercial entities.[35]

The AEMC has obtained advice on the numbers of embedded networks and embedded network customers sourced from strata title searches, building consent approvals, and

32 AEMC, 2017 Retail Energy Competition Review, 25 July 2017, pp. 160-161.

33 AER website, public register of network exemptions webpage, https://www.aer.gov.au/networks-pipelines/network-exemptions/public-register-of-network-exemptions; public register of retail exemptions webpage, https://www.aer.gov.au/retail-markets/retail-exemptions/public-register-of-retail-exemptions.

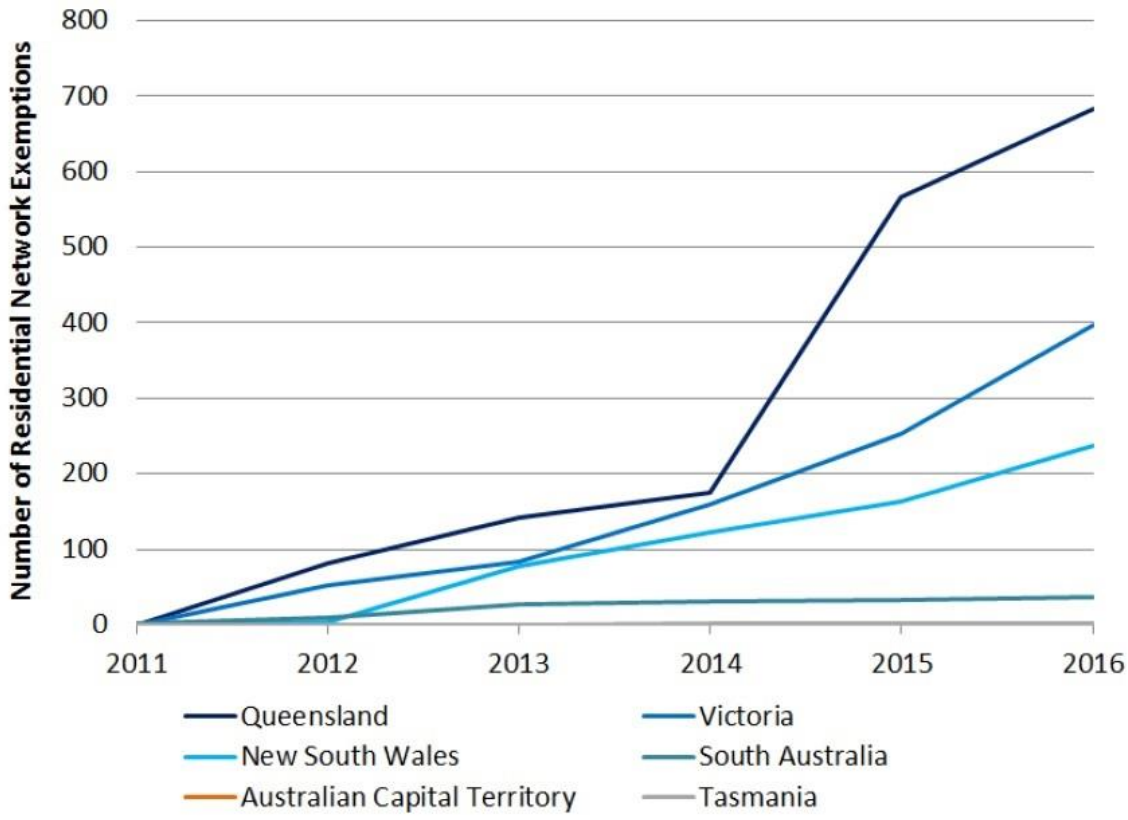
34 ibid.

35 AEMC, 2017 Retail Energy Competition Review, 25 July 2017, p. 162.

from parties representing or delivering embedded network services (for instance, Caravan Industry Association and the Australian Shopping Centre Industry). The advice contains the following estimates:

- the number of embedded networks is in the order of 3,000 to 4,000, which is greater than the number registered with the AER and suggests many network exemptions are unregistered
- there are 213,000 to 227,000 embedded network customers that they are aware of, based on billing data provided by embedded network operators
- 65 per cent of these customers are residential (including retirement villages, caravan parks) and 35 per cent are commercial
- there are 110,000 sites that could be configured as an embedded network, which would capture a total of about 1.5 million customers.[36]

Figure 3.3 Jurisdictional residential network exemption registrations (cumulative)[37]



Source: AER, AEMC analysis

Figure 3.3 plots residential network exemptions registered with the AER in each jurisdiction over time. Between 2011 and 2014, there was modest growth in Queensland, New South Wales and Victoria. However from 2014 residential embedded network exemptions significantly increased in Queensland. In 2015 alone, there were 391 network exemptions granted in Queensland, accounting for around 74 per cent of

36 Advice from Energy Options Australia to the AEMC, August 2017.

37 AEMC, 2017 Retail Energy Competition Review, 25 July 2017, p. 163.

all network exemptions that year. Over the entire period, embedded networks in Queensland accounted for more than 50 per cent of all network exemption registrations across the NEM. Many of these registrations may be related to an increase in existing embedded networks registering for the first time, coinciding with the introduction of the NECF in Queensland from 1 July 2015.[38]

Victorian network exemption registrations also grew between 2011 and 2014, however, Victoria only accounted for around half the number of embedded networks compared to Queensland. In 2014 and 2016 Victoria had the most new residential network exemptions (75 and 145, respectively) accounting for around 48 and 43 per cent of all exemptions in those respective years.

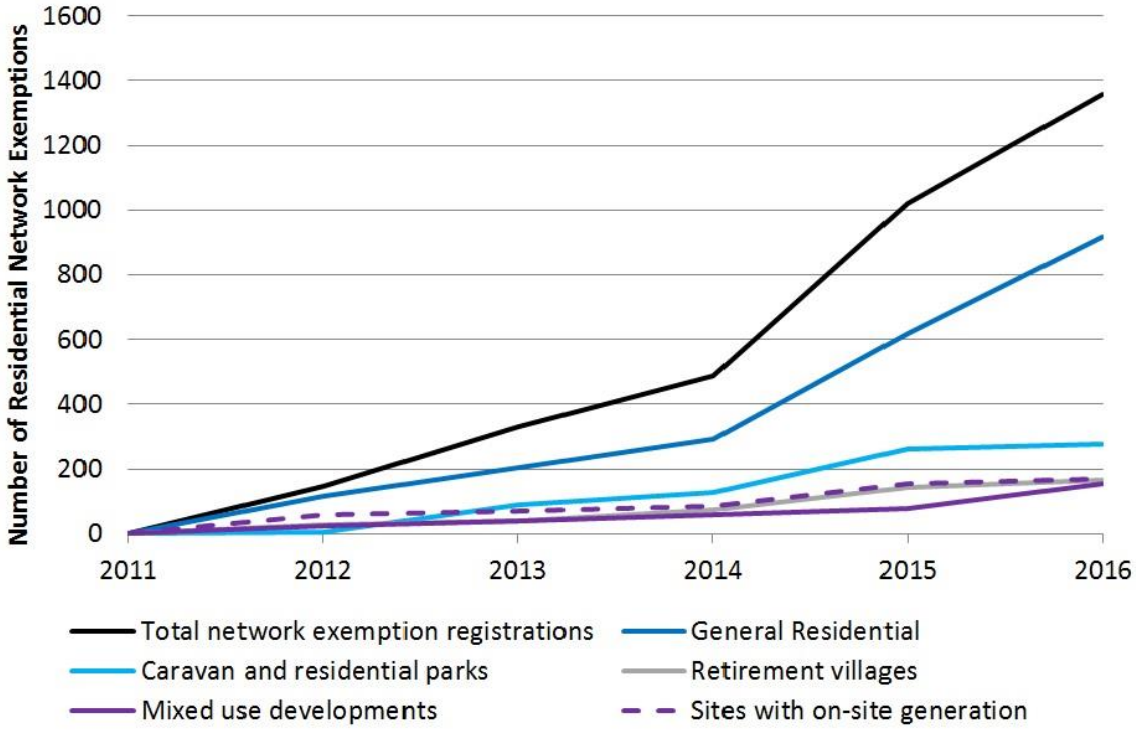
Registered network exemptions in New South Wales appear to have commenced later than in Victoria and Queensland, but have had sustained growth since then, averaging around 60 registrations annually. Other jurisdictions have seen only limited growth in residential embedded networks since 2011.[39]

Figure 3.4 shows how the number of residential network exemption registrations has grown over time. It highlights that the overwhelming majority of residential network exemptions across NEM jurisdictions are related to general residential activities such as apartment buildings. This exemption category has grown significantly since 2014, increasing 215 per cent. It reflects the changing preferences in demand for housing over this period, and also potentially a greater awareness of the network exemption process, resulting in more legacy embedded networks registering.

38 AEMC, 2017 Retail Energy Competition Review, 25 July 2017, p. 163 (footnote 181) and p. 224.

39 For more comprehensive analysis see AER, 2017 AEMC Retail Energy Competition Review, 25 July 2017, chapter 9.

Figure 3.4 Total NEM residential network exemption registrations (cumulative)

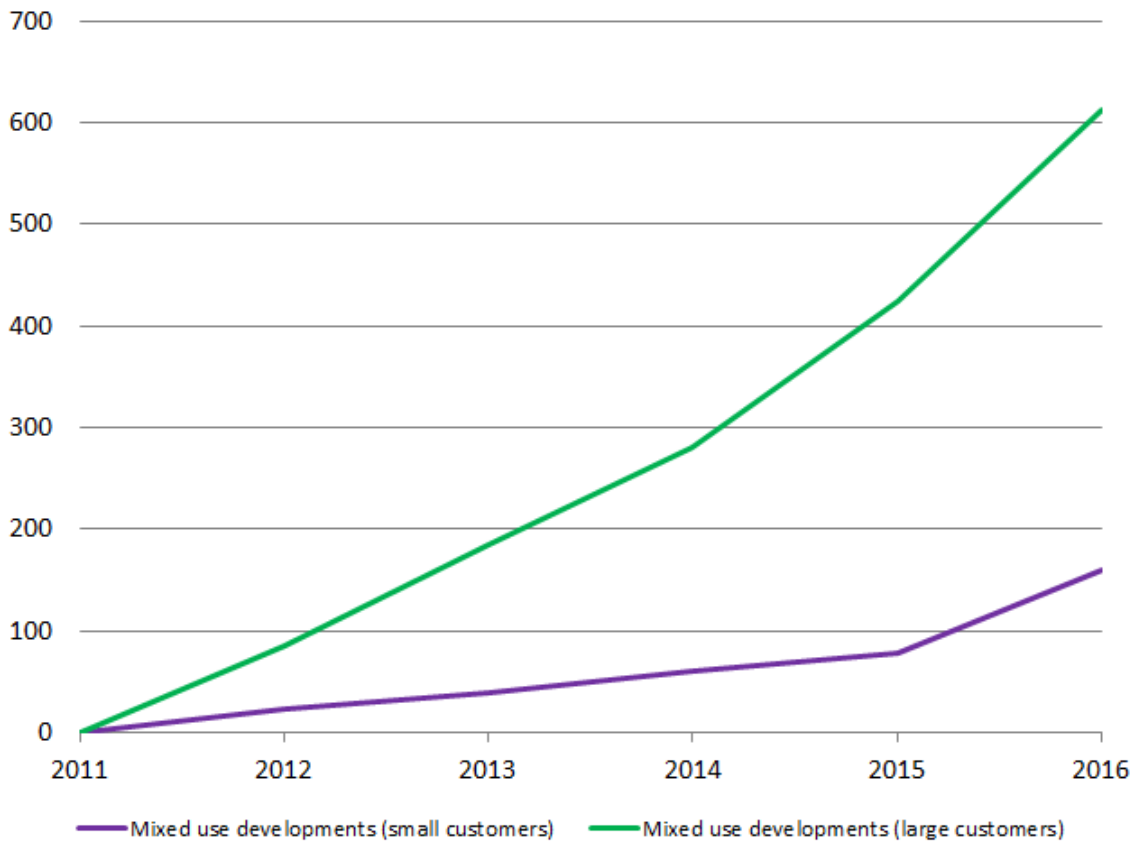


Source: AER, AEMC analysis

Figure 3.4 also shows that the number of sites with embedded generation is low. However the data relates only to generating units larger than 30 MW that are required to be registered with AEMO, and sites with smaller generation units that are used for network support or demand management purposes. It is likely that significantly more embedded network sites exist with non-registrable small-scale generators such as solar PV.

Figure 3.5 isolates the number of mixed use development sites in figure 3.4 (sites that include small commercial customers) and adds the number of sites that include large commercial customers. The numbers of registered exemptions in these categories show increases similar in magnitude to the total for the residential categories. It could reflect a greater preference for embedded networks and potentially a greater awareness of the network exemption process, resulting in more legacy embedded networks registering.

Figure 3.5 Total NEM mixed use network exemption registrations (cumulative)



3.3 Types of embedded network businesses

The embedded networks sector has a large range of businesses providing a range of services. These businesses include:[40]

- **Owners Corporations** which are involved in the embedded networks market when the buildings they manage are established (or converted) to an embedded network. This means that the Owners Corporation is not only responsible for the maintenance of the common areas of property and levying appropriate fees to owners of the units, they are also responsible for the delivery of electricity, gas and sometimes other products to consumers. Many owners corporations have registered as exempted parties for both network and retail activities at their sites, or engage others to act on their behalf
- **Developers** which are primarily responsible for establishing greenfield buildings, and/or conversion of existing building stock into embedded networks. Outside of the development to property sale process, some developers are now involved in the ongoing management of the embedded network through subsidiary companies. Some of these subsidiaries and developers are registered

40 For a more detailed discussion see AEMC, 2017 Retail Energy Competition Review, 25 July 2017, section 9.4.

as exempted on-sellers and engage with consumers in embedded networks directly with, or on behalf of, the owners corporation

- **Market intermediaries** which are businesses that operate to provide services to other businesses supplying this segment of the retail energy market. These can include developers, other commercial embedded network managers, residential owners corporations, and consumers. The services that market intermediaries can provide can be vast. They can range from planning and engineering advice to developers at project feasibility stages about establishing embedded networks, through to regulatory advice and exemptions process management, customer management functions such as billing, metering, customer calls and complaints, and other related services. Many market intermediaries now operate in this market and compete with each other to deliver various services for their clients. Market intermediaries can sell to and gain prospective clients at various points in the development including the initial planning stages, through to end-use customer management services. Market intermediaries can seek exemptions for themselves and their clients to operate at specific sites
- **Retirement village, residential park and caravan park operators** which provide a range of specialised services to their clients, including the provision of electricity. These participants can register as exempted parties for both network and retail activities at their sites, or engage others to act on their behalf
- **Businesses that on-sell to other commercial entities** which include a range of commercial arrangements where a common property owner (or agent for the owner) sells energy to commercial entities operating on site. These sellers operate facilities such as airports, shipping ports, hotels and shopping centres.

4 Background

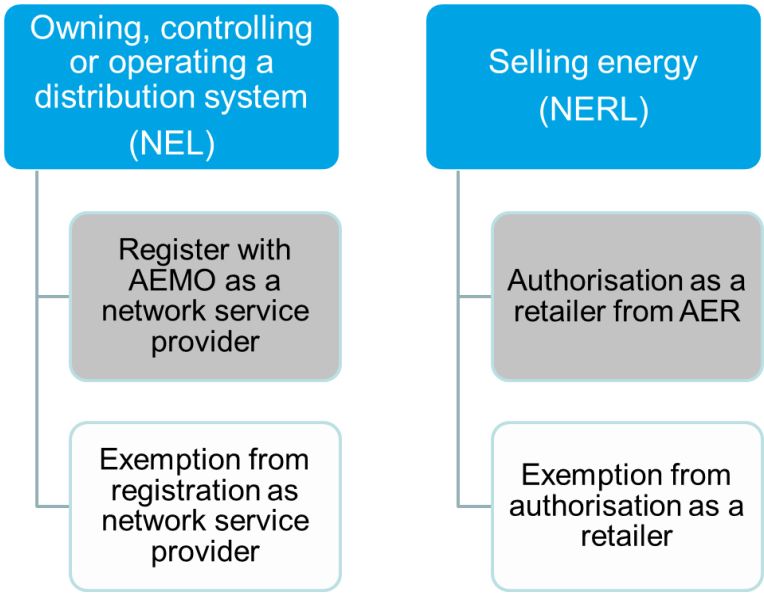
This chapter sets out background information related to:

- The current regulatory framework
- The history of the regulatory framework
- The exemption framework
- Access to competition for embedded network customers
- Consumer protections
- Gas embedded networks.

4.1 The current regulatory framework

Under the NEL and NER, in order to own, control or operate a distribution system a party must either be registered by AEMO as an electricity network service provider or be exempted from the requirement to register as a network service provider (Figure 4.1). Similarly, under the NERL, if a party wishes to sell energy to a consumer, it must hold a retailer authorisation from the AER or be exempted by the AER from the requirement to hold a retailer authorisation.

Figure 4.1 Current two-tier regulatory framework



The exemptions framework exists because in some circumstances applying the set of regulatory obligations placed on distribution network businesses and authorised retailers to smaller private network operators was considered excessive or inappropriate.

While there are potential benefits to be gained by a range of parties, including consumers, from embedded network solutions, there are also risks borne by consumers with respect to consumer protections. The existing 'two tiered' regulatory framework can result in substantially different obligations in providing network and retail services between those entities supplying embedded network customers and those supplying

standard supply customers. It can also limit access to competitive energy market offers for embedded network customers.

Exempt customers in embedded networks are not covered by the provisions in the NER and NERR. Instead, the AER's network and retail exemption guidelines mimic parts of the NER and NERR. However, the AER has less visibility of performance and compliance for exempt sellers and exempt embedded network service providers and enforcement of the conditions in the network exemption guideline is more difficult (see Chapter 5).

4.2 History of the regulatory framework

Embedded networks are not a new form of electricity supply. The network exemption framework was initially developed under the National Electricity Code (Code).

First published in 1998, the Code contained provisions to enable the exemption of persons or classes of persons from the requirement to register as a network service provider, and from specified network access and connection requirements. General exemptions granted under the Code applied 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. Organisations that fell within one of these general exemptions were not required to make an application for a specific network exemption. The general exemption framework was thus established to address a limited set of risks arising from these limited sets of activities.

The general network exemption process was administered by the National Electricity Code Administrator (NECA).[41] The authorising framework for on-selling activity, however, was determined by various jurisdictional regulations. Some jurisdictions had explicit provisions in various state laws and regulations with respect to the retailing of energy through embedded networks, while others did not. For instance, in Queensland, retail contestability for consumers in an on-supply arrangement was excluded and provisions in the Electricity Act 1994 (the Act) reflect this position.[42]

In 2005, the network exemption framework transitioned to the NEL and NECA's powers and functions in relation to providing network exemptions transitioned to the AER at this time. The various jurisdictional retail exemption provisions were substantially consolidated into the NERL sometime later.[43] In addition, 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.

---

41 National Electricity Code Administrator, General exemptions from the requirement to register as a network service provider, National Electricity Code Administrator, 1998, https://www.aer.gov.au/system/files/General%20exemptions-%20NECA.pdf.

42 However, state-based legislation (including the Electricity Act) is under review: Queensland government website, Legislative review webpage, https://www.dews.qld.gov.au/electricity/regulation/initiatives/legislation.

43 The NERL commenced in various states at differing times (the Australian Capital Territory and Tasmania in 2012, New South Wales and South Australia in 2013, and Queensland in 2015).

4.3 The exemption framework

The AER has discretion over whether or not to grant an exemption and the kinds of exemptions it can grant.

The NERL includes policy principles the AER must take into account when exercising its exemption functions and powers in relation to sellers of both electricity and gas. The NERL also provides the AER with guidance on the exempt seller and customer related factors it may wish to consider. However, the NEL and the NER do not guide the AER regarding the conditions that apply to each class of exemption.

Under these limited constraints and guidance, the AER develops and applies two exemption guidelines:

- E*lectricity Network Service Provider Registration Exemption Guideline* (the network exemption guideline)
- *(Retail) Exempt Selling Guideline* (the retail exemption guideline).

Once exempted from being registered as a network service provider or holding a retail authorisation, embedded network operators must comply with the terms and conditions of these exemptions under the AER's network exemption guideline and retail exemption guideline.[44]

Network and retail exemptions are categorised into three types: deemed, registrable and individual.[45] Deemed and registrable exemptions are called 'class exemptions', because they apply to certain groups (or 'classes') of people who supply or sell energy.

Each exemption type has a different set of eligibility requirements and is subject to particular conditions:[46]

- *Deemed exemptions:* Small networks and small scale selling arrangements are generally eligible for a deemed exemption. Deemed network and retail exemptions apply automatically to certain types of networks and energy sellers, respectively. These do not require application or registration with the AER, but the exempt party must still comply with the conditions of the exemption, which vary depending on the type of embedded network and selling activities. Deemed exemptions apply to a range of energy selling activities, including caravan parks that meter energy to people in short-term holiday accommodation, businesses that sell to a related business and persons that sell energy to fewer than 10 small businesses or residents.
- *Registrable exemptions:* Larger networks are required to register a registrable exemption with the AER. In relation to retail exemptions, registrable exemptions are usually required where the scale of energy selling is larger. Similar scale

44 For embedded networks that require an individual exemption, the terms and conditions are set out in the individual exemption specific to the embedded network operator instead of the network and retail exemption guidelines.

45 The NERL requires that retail exemptions are categorised into deemed, registrable and individual classes whereas the NEL does not set out classes of exemptions.

46 A full list of deemed and registrable retail exemptions and conditions can be found in the AER's network and retail exemption guidelines.

criteria apply to network exemptions. The AER publishes these registered exemptions on their website but it does not assess or approve them. Although these exemptions are self-assessed, the AER has a somewhat greater awareness and oversight of these networks and selling arrangements. Examples of energy sellers that can register an exemption include parties that sell to ten or more small tenants or residents within an embedded network, retirement villages or caravan parks that sell metered energy to permanent residents and parties selling energy to large customers

- *Individual exemptions:* Networks that do not fit within one of the specified classes of deemed or registrable exemptions must seek an individual exemption from the AER. An individual exemption usually applies to the supply or sale of energy at a particular site and/or to a particular customer or group of customers. Individual exemptions apply to more bespoke or one-off arrangements and allow the AER to tailor the conditions of the exemption.

The majority of exemptions provided by the AER fall into the deemed and registrable categories, which are not assessed or approved by the AER. Within the deemed and registrable types of exemptions there are different classes of exemption for embedded networks with different characteristics.

The network exemption conditions are for electricity networks only and relate to: general sub-conditions; metering requirements; access to retail competition; distribution loss factors; network pricing; appointment of embedded network managers; information provision; and conversion of existing sites (brownfield conversions).

The retail exemption conditions are for both electricity and gas selling and relate to five key areas: information provision; dispute resolution; pricing; access to retail competition; and consumer protections.

A breach of a condition under a retail exemption is a breach of the NERL, and is a civil penalty provision.[47] This is not the case for breaches of conditions under a network exemption.[48] The AER also has the power, in certain circumstances, to revoke exemptions.

The AER has no visibility of embedded networks operating under deemed exemptions and limited visibility of embedded networks operating under registrable and individual exemptions. Unlike registered network services providers and authorised retailers there are no compliance reporting requirements on exempt network service providers or exempt sellers.

Appendix A provides further detail on the regulatory framework.

As set out in section 3.2, the numbers and scale of embedded networks and the diversity in the business models of the entities working with embedded networks are

47 NERL, s. 112.

48 Section 2.4.8 of the network exemption guideline provides that an exemption can be revoked if there is a breach of any condition of the exemption. Section 11(2) of the NEL then makes it a civil penalty provision to operate a distribution system if not registered or if no exemption. A civil penalty would only apply if the embedded network continued operating following the revocation of an exemption.

growing. Developments in technology, including distributed generation and storage also mean the technical configuration of embedded networks is increasingly complex.

The growth in the number of exemptions and the scale of the network and selling arrangements covered by these exemptions means that increasing numbers of customers are being supplied their electricity by embedded network operators under a retail and network exemption, which has implications for access to retail competition and consumer protections. An enduring lack of competition would be undesirable as it could drive a need for more intrusive regulation, which may constrain innovation and technology neutrality.

Given the greater scale and complexity of embedded networks, we questioned whether the two tiered regulatory framework and the exemption framework remain fit for purpose. This is discussed further in chapter 5.

4.4 On and off-market arrangements

In the standard arrangements for customers in the national electricity market (NEM) the registered local network service provider (LNSP) owns and operates the distribution network that is connected directly to the customers' premises. Customers choose between retail market offers from authorised retailers. Metering services, including installation, maintenance and meter reading are provided by accredited providers, as arranged by the responsible person – the retailer or LNSP – relevant to the specific connection point. From 1 December 2017, when the metering aspects of the *Expanding competition in metering and related services (Competition in metering)* final rule commence, metering services will be arranged by the metering coordinator, not the responsible person.

The network arrangements and the responsibilities of market participants within embedded networks are different to this standard arrangement. While the LNSP is responsible for electricity supply to the parent connection point (as it is on the LNSP's network), it is not responsible for supply to customers within the embedded network. Instead, any assets beyond the parent connection point are controlled and operated by the embedded network service provider. Embedded network service providers are not AEMO registered network service providers or authorised retailers and fall generally outside of the network and retail provisions in the NER, NERR and NGRL.

There are two possible arrangements for the provision of retail and metering services to customers within embedded networks. One arrangement is that retail and metering services are provided by the embedded network service provider who holds a retail exemption and so is not an authorised retailer. This type of arrangement is known as "off-market" activity because there is no financially responsible market participant at the customer's connection point and the customer's metered electricity consumption is not settled in the national electricity market. The Commission understands this is currently the arrangement for the majority of embedded network customers.

In the second arrangement, customers have chosen an authorised retailer for their retail services. The authorised retailer provides retail services, and metering services are arranged by the responsible person (the metering coordinator from 1 December 2017). Customers are still provided with network services by the embedded network service provider. This type of arrangement is called "on-market" activity because there is a

financially responsible market participant at the customer's connection point and the customer's metered consumption is settled in the market.

The embedded network service provider pays the local network service provider's (LNSP's) charges for all energy delivered to the parent connection point. If an off-market customer within an embedded network elects to become an on-market customer (i.e. purchase retail services from an authorised retailer), the customer must pay the embedded network service provider its share of the LNSP's cost to provide network services to the parent connection point. Typically, this will occur by the customer paying the embedded network service provider directly, but the authorised retailer and the embedded network service provider could allow the customer to pay a single invoice to the authorised retailer for both network (LNSP) and energy services. The authorised retailer then passes on the network (LNSP) component to the embedded network service provider.

Embedded network service providers are not permitted to charge for provision of the embedded network through electricity charges.[49] These costs are generally recovered through body corporate fees, up front property purchase prices and/or lease payments.

4.5 Access to competition for embedded network customers

The NERL stipulates that exempt customers should, as far as practicable, be afforded the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction have that right.[50] There are a number of significant benefits in providing embedded network customers access to retail market offers. These benefits relate to price, variety of products, quality of service and access to government schemes and consumer protections. Access to competitive market offers helps protect consumers from receiving poor prices or services.

However, in order for embedded network consumers to be able to access retail competition, consumers need to be 'market-facing'. For a consumer to be able to access retail market offers, the consumers metering installation must be NEM compliant, meaning it must be able to be assigned a National Metering Identifier (NMI), and registrable in AEMO's systems. Only once a NMI has been assigned and the consumer's meter registered with AEMO, can the consumer's metering data be accessed by the consumer's authorised retailer for settlement. Not all metering equipment is capable of this, and many existing embedded network metering installations do not meet this requirement.

4.5.1 Recent reforms promoting retail contestability

A number of recent reforms have been made to promote retail contestability for consumers within embedded networks. However, further work is required to lower the remaining barriers to retail contestability for embedded network customers.

---

49 Except where the parties have entered into an agreement on mutually agreed terms and both parties are large customers or large corporate entities. See AER, Electricity Network Service Provider - Registration Exemption Guideline Version 5, 1 December 2016, pp.58-59.

50 NERL, s. 114(1)(b).

The *Embedded networks* final rule determination found the NER did not allocate responsibility for performing the market interface functions required to link embedded network customers to retailers in the national electricity market systems (for example, assigning customer a National Metering Identifier (NMI)) to a specific party.

The *Embedded networks* rule addressed this barrier by creating a new accredited provider role – embedded network manager (ENM) – to perform the market interface functions that link embedded network customers with the national electricity market systems.

The *Embedded networks* rule sets out the detailed functions, responsibilities, and governance arrangements for embedded network managers and specifies the circumstances under which embedded network operators are required to appoint an ENM. Where an embedded networks customer goes on market, an ENM will have clear responsibilities to performing the market interface functions, including assigning customer a NMI. The rule also triggered changes in the relevant AEMO procedures and the AER's network exemption guideline.

The AER's current network exemption guideline also goes some way to addressing the issue of non-compliant metering for embedded network consumers. For example, in previous iterations of the network exemption guideline, the AER required parties seeking network exemptions in South Australia, Victoria and New South Wales to install NEM compliant metering for small consumers. The current network exemption guideline now requires all metering installations to be NEM compliant in all jurisdictions where the network exemption guideline applies.[51] This will help some residential consumers in newly-built embedded networks (and proposed retro-fit embedded networks) to access retail market offers, if they choose.

Together, these reforms lower the barriers to embedded network customers accessing retail market offers.

However, we identified other barriers to embedded networks customers accessing retail competition during the Embedded networks rule change process. These barriers, which could not be addressed within the scope of the rule change request, included:

- jurisdictional regulations that govern embedded network customer access to retail market offers are inconsistent and some prevent embedded network customers accessing retail market offers
- the absence of clear obligations and relationships between authorised retailers, embedded network operators and embedded network customers in the NERR.

4.6 Jurisdictional differences

Victoria, New South Wales, South Australia and the Australian Capital Territory have regulatory frameworks that allow for embedded network customers to access retail market offers.

In Queensland and Tasmania, embedded network customers need a direct connection to the local distribution network if they want access to retail market offers. This may

51 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 44.

require significant changes to the wiring within the embedded network, the costs of which would be borne by the customer. Queensland is reviewing these and other arrangements as part of its review of state-based energy legislation.[52]

In the *Embedded networks* rule the Commission set out the legislative instruments and policy decisions in each jurisdiction that influenced embedded network customer access to retail market offers at the time. These jurisdictional arrangements continue to evolve.

In Victoria, parties seeking to supply or sell electricity to residential or business consumers must be either licensed or be exempted from the requirement to obtain a licence.[53] Victoria's General Exemption Order (GEO) provides for exemptions from the requirement to hold an electricity licence for certain activities. The GEO currently contains classes of activity for distribution and retailing that are subject to 'deemed' exemption for embedded networks. This means that embedded network operators do not require an application or registration for an exemption under the GEO, but must satisfy themselves that they fall within the activities covered by the GEO. However, in addition to the GEO, the AER's network exemptions framework still applies to parties operating private networks in Victoria.[54] Parties seeking to undertake network activities in Victoria must still abide by the AER's requirements.

In Tasmania, we understand the exemption framework does not apply to embedded networks, such as caravan parks, shopping centres, and apartment buildings, but does allow for individual exemptions, for example, for solar power purchase agreement providers.[55]

At present, the AER is the sole agency responsible for the development and implementation of network and retail exemptions in all NEM jurisdictions except Victoria and Tasmania.

In its consultation paper, the Commission sought information from stakeholders on arrangements that are impacting on embedded networks.

4.7 Consumer protections

The NECF

The National Energy Customer Framework (NECF) is a suite of legal instruments that regulate the sale and supply of electricity and gas to customers, and includes work that harmonises most energy consumer protections across participating states and territories.

52 Queensland government website, Legislative review webpage, https://www.dews.qld.gov.au/electricity/regulation/initiatives/legislation.

53 Electricity Industry Act 2000 (Vic), s. 16.

54 Victoria state government, General exemption order, Draft Position Paper, 2016, p. 8, available on Victoria state government website, General exemption order review webpage, https://www.energy.vic.gov.au/legislation/general-exemption-order-review.

55 AER, AER (Retail) exempt seller guideline, version 4, March 2016, p. 52.

The main legal instruments of the NECF are the NERL, the National Energy Retail Regulations (Regulations) and the NERR. The NECF:[56]

- establishes the consumer protections and obligations regarding the sale and supply of electricity and natural gas to consumers, with a particular focus on residential and small customers
- defines the rights, obligations and protections relating to the relationship between customers, energy retailers and energy distributors
- complements and operates alongside the generic consumer protections in the Australian Consumer Law[57] and state and territory safety and concession regimes.

The NECF was developed in the context of the Australian energy retail markets having been recently opened up to competition with the view that all consumers would be supplied through the interconnected electricity system, supported by a retail contract (the exception being embedded network customers supplied under the exemption framework). The objective of fostering and developing trust and confidence in competitive markets, such as Australia's energy retail market, is a key reason for introducing energy specific consumer protections. Where consumer protections enhance the trust that consumers have in markets, consumer participation increases.[58]

Accordingly, in markets newly opened up to competition, such as retail energy markets in Australia, additional consumer protections are often premised on a need to:

- inform consumers of risks, and their rights, in a new, unfamiliar context
- address the incentives of suppliers in the changed context, and
- address the differential impacts on consumers of opening a market to competition.[59]

The types of consumer protections provided under the NECF can be grouped under a number of themes:

- Energy as an 'essential service': for example the right to access energy services, the ability to enter into a retail contract to energise the connection and obligations towards life support customers
- Empowering consumers: for example, retailers and distributors must inform consumers of the risks and their rights in the context of the competitive retail market, including through: informed consent requirements, requiring businesses

56 The NECF currently applies, with jurisdictional specific amendments, in Queensland, New South Wales, South Australia, Tasmania and the Australian Capital Territory. The NECF only applies in a limited manner in Victoria.

57 The ACL offers protections for consumers in the areas of consumer rights when buying goods and services, product safety, unsolicited consumer agreements including direct marketing, unfair contract terms, and enforcement remedies amongst others. The ACL prohibits misleading, deceptive and unconscionable conduct.

58 Dr C Decker, Regulatory implications of new products and services in Australian electricity markets, final report, 17 July 2015, pp. 14-15.

59 ibid.

to have dispute resolution procedures and mandating access to free and independent dispute resolution schemes

- Minimum standards: for example, obligations relating to the pre-contractual duties of retailers
- Billing, tariffs and payment: for example, minimum requirements regarding the contents of bills, notification requirements on tariffs and charges applicable to consumers, obligations in relation to overcharging and undercharging and payment methods
- Vulnerable customers: for example, retailers must have hardship policies and payment plans.

Since the NECF was developed the energy market has undergone significant transformation due to new technology, innovation in products and services and changes in consumer preferences. The evolving nature of the market and the technology changes provide an opportunity to consider whether or not the existing energy specific consumer protection framework should continue to apply, what needs to be amended, and what could be removed.

In August 2016, as part of the Energy Market Transformation project, the COAG Energy Council published three consultation papers on stand-alone systems, consumer protections for products and services 'behind the meter', and energy (battery) storage.[60] In August 2017, the Energy Market Transformation Project Team published a work program update noting outcomes and further work in these areas.[61] The terms of reference ask the AEMC to have regard to this work.

Retail authorisation

The NERL sets out three entry criteria that must be satisfied to obtain a retailer authorisation:

- *organisational and technical capacity:* the applicant must have the necessary organisational and technical capacity to meet the obligations of a retailer
- *financial resources:* the applicant must have resources or access to resources so that it will have the financial viability and financial capacity to meet the obligations of a retailer
- *suitability:* the applicant must be a suitable person to hold a retailer authorisation.

There is no flexibility in the law to depart from the criteria to suit the circumstances.

The AER's retail exemption guideline

Exempt sellers are not subject to the NERR. Instead, energy specific consumer protections are provided to exempt customers under the exemption framework through the AER's retail and network exemption guidelines. Consumer protections for

60 COAG energy council website, Publications webpage, http://www.coagenergycouncil.gov.au/publications/energy-market-transformation-%E2%80%93-consultation-processes.

61 COAG Energy Council website, Publications webpage, http://www.coagenergycouncil.gov.au/publications/energy-market-transformation-bulletin-no-05-%E2%80%93-work-program-update.

embedded network customers are intended to reflect the protections provided to the customers of authorised retailers under the NERL and NERR as far as is practicable.[62]

The retail exemption framework is built on three core policy principles:

- the regulatory arrangements for exempt sellers should not unnecessarily diverge from those applying to retailers
- exempt customers should, as far as practicable, have the right to choose a retailer
- exempt customers should, as far as practicable, be afforded the same consumer protections to retail customers under the NERL and NERR.[63]

The AER has the power to impose conditions on exempt sellers under the NERL.[64] The AER must take the above policy principles into account when exercising its exempt selling powers and functions.[65] Each kind of exemption is subject to particular conditions. The AER sets out the conditions of exemption for deemed, registrable, and individual exemptions in the retail and network exemption guidelines.

Consumer protections may also be available to embedded network customers under other legislative frameworks; for example, the Australian Consumer Law (ACL) and jurisdictional tenancy legislation. ACL offers protections for consumers in the areas of consumer rights when buying goods and services, product safety, unsolicited consumer agreements including direct marketing, unfair contract terms, and enforcement remedies amongst others. Most residential and small business embedded network customers also have some protections under their respective tenancy legislation including access to tenancy tribunals.

The AER takes these additional protections under ACL and tenancy legislation into consideration when determining the conditions to attach to retail exemptions. The AER states in the retail exemption guideline that protections under the tenancy legislation "when complemented by exemption conditions, will go some way to matching the consumer protections provided by the Retail Law".[66]

The conditions that the AER has considered necessary to specifically apply to retail exemptions relate to the following key areas:

- *Essential service provision:* conditions include obligations to supply, requirements for life support customers, prohibition of disconnection in certain circumstances and disconnection notification requirements
- *Information provision:* the exempt seller is required to provide information to customers at the commencement of a tenancy, residency or agreement regarding the customers' access to retail markets, contact details for complaints and inquiries, the terms and conditions of the exemption and the rights the customer has within the exemption

62 NERL, s. 114(1); AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 12.

63 NERL, s. 114(1).

64 NERL, s. 112.

65 NERL, s. 114(1).

66 AER, AER (Retail) exempt selling guideline, version 4, March 2016, p. 57.

- *Dispute resolution:* where disputes arise the exempt seller must make reasonable endeavours to resolve the dispute and advise the customer of rights to access the energy ombudsman schemes and other relevant external dispute resolution bodies in the relevant jurisdiction
- *Hardship:* an exempt seller has obligations towards customers that have payment difficulties
- *Billing and payment:* an exempt seller has obligations in relation to regularity of bills, application of government concession and rebate schemes, estimation of bills and reasonable payment periods.

Consumer protections for embedded network customers supplied by authorised retailers

Some embedded network customers are the customer of authorised retailers. These authorised retailers are subject to the NERL and NERR and not the conditions of the AER's retail exemption guideline.

However, the NERL and NERR are designed on the basis of the tripartite relationship that typically exists between a customer, its authorised 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. This different circumstance raises a range of retail market issues that require consideration and possible changes to the NERR, and potentially the NERL. These issues are discussed further in chapters 5 and 9.

4.8 Gas embedded networks

A gas embedded network can operate in a similar way to an electricity embedded network, where a party purchases gas metered at a parent or bulk connection point then distributes and on-sells it to customers behind this connection point.

The regulatory framework for gas embedded networks differs from electricity embedded networks. The national retail exemption framework applies to the on-selling of gas and includes deemed exemptions for people who sell unmetered gas where gas is used for limited purposes. However, there is no national exemption framework for the distribution of gas through an embedded network. Jurisdictional arrangements apply to gas embedded network service providers.

The network exemption guideline notes that "the AER does not regulate an exemption framework for gas distribution. This remains a local matter in the relevant States and Territories."[67] However, the Australian Energy Markets Agreement lists the functions relevant to the regulation of embedded gas networks as "National Functions".

As part of our review, we considered whether the regulatory framework of gas embedded networks is currently appropriate and what changes may be necessary. We also considered whether it is desirable for regulatory clarity and predictability that the framework of obligations and customer protections for embedded network operators and customers are similar for gas and electricity.

67 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 9.

5 Issues

This chapter presents the key issues we identified with the current regulatory regime for embedded networks, as illustrated with consumer experiences.

In our draft report we found that, compared with standard supply customers, embedded network customers do not have equivalent:

- access to retail competition
- consumer protections
- arrangements within gas embedded networks.

After considering submissions on the draft, we are convinced that:

- the problems we identified remain worthy of changes to the law and rules
- it is in the long term interest of consumers for embedded network customers to be afforded:
  - the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction have that right[68]
  - customer protections afforded to retail customers under the NERL and NERR".[69]

5.1 The current framework

5.1.1 Submissions on the consultation paper

Feedback to our questions in the consultation paper about the continued suitability of the regulatory framework revealed a broad range of responses:

- some embedded network operators considered that the existing framework was fit for purpose and should continue
- a variety of stakeholders supported the existing framework but with some suggested improvements
- a variety of stakeholders including the AER suggested more substantive changes.

The Shopping Centre Council submission contained the strongest support for the status quo:[70]

> "In summary, it is our strong view that the current two-tiered regulatory framework is fit-for-purpose, adaptive, and should continue. There is no evidence of an existing structural failure, or inherent failure with detailed regulatory mechanisms and conditions."

Similarly, on the matter of the exemption framework, the Shopping Centre Council believed the AER is responsive and adaptive in exercising its regulatory functions and the AER has appropriate powers, as evidenced by its issuing of infringement notices. It

68 NERL, Part 5, Division 6.

69 ibid.

70 Shopping Centre Council, Submission on the consultation paper, p. 1.

suggested that a risk-based approach to monitoring and enforcement which prioritises and resources higher risk customers and operators.[71]

Flow suggested the *Embedded networks* rule change be given time to work before an alternative framework is considered.[72] Energy Queensland, Flow, Living Utilities and ATA supported the current regulatory framework but thought it could be improved. The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd acknowledged that improvements could be made but they were opposed to any changes in the regulatory framework that might make an already complex regulatory situation worse.

In contrast, the AER's view was that the regulatory framework is unable to deal with the diversity and complexity of exempt selling arrangements, including selling in embedded networks, and is no longer fit for purpose:[73]

> "On-selling through embedded networks has become a core function for many ENSPs rather than being incidental to their broader activities, with many behaving more like retailers than exempt sellers. It is therefore no longer appropriate to distinguish retailers as those whose core business is the sale of energy, and exempt sellers as those for whom energy selling is incidental."

The AER was also concerned about its limitations enforcing conditions of both retail and network exemptions, for example it noted:[74]

> "Enforcement of network exemptions provides a range of additional challenges. Section 13 of the National Electricity Law (NEL) contains a power for the AER to issue a civil penalty for failure to hold a network exemption but provides very limited means of enforcing breaches by [ENSPs] of network exemption conditions."

The AER suggested changes that would enable it to vary the penalty:[75]

> "We also consider the penalty regime for breaches of the Retail Law and exemption conditions should reflect the fact that ENSPs are diverse entities, which range from individuals running small businesses to sophisticated corporations, and should enable us to apply appropriate and proportionate penalties. The current penalty amount is $20,000 for a breach regardless of the size or nature of the [ENSP]. One model that could provide guidance is the Australian Consumer Law which distinguishes penalty amounts for individuals and corporations."

Furthermore, the AER, ECA and SACOSS et al were concerned about increasing numbers of owners and bodies corporate using outsourced third parties (agents) to manage embedded networks on their behalf.[76]

---

71 ibid.

72 Flow, Submission on the consultation paper, p. 5.

73 AER, Submission on the consultation paper, p. 2.

74 AER, Submission on the consultation paper, p. 4.

75 AER, Submission on the consultation paper, p. 4.

The ECA was concerned that this business model was "not based not on delivering real value but on identifying the opportunity to exercise and exploit market power".[77] SACOSS also questioned the capacities of these third parties, and the systems and processes they have in place to ensure compliance with exemption conditions.[78]

The AER noted it is limited in its ability to take direct compliance and enforcement action in relation to agents because they are not exemption holders (sellers) and suggested the AEMC consider how to capture third parties in the regulatory framework that on-sell electricity to customers on behalf of embedded network operators:[79]

> "The current framework does not allow us to adequately deal with specialist energy on-sellers acting as agents for [ENSPs]. Agents market themselves as expert billing and customer service providers who manage energy sales in compliance with energy laws. They present themselves to the market as responsible for the customer's energy supply and manage customer relations, often with call centres established to respond to customer queries. They usually include their own branding on customer bills. Given their central role in managing energy sales and administering consumer protections, we suggest consideration be given to measures or amendments that could see these service providers specifically captured."

The ATA suggested changing the nature of the regulatory framework: [80]

> "Expanding the scope of energy regulation to apply based not solely on the sale of energy but the extent to which a service or product is used to deliver the essential service of a continuous supply of electricity and the impact on the consumer of experiencing payment difficulties and hardship, would encompass these businesses and place them under the oversight of either the exemptions framework or an expanded authorisations framework."

Momentum Energy suggested a more appropriate model would be single tier regulatory framework, paring back the regulatory obligations for authorised entities and focussing on ensuring that all customers have access to an appropriate level of protection.[81] It also said:[82]

> "Any divergence between the customer protections enjoyed by the broader body of consumers and those available to off-market customers in embedded networks highlights one of two issues, either:
>
> - The regulations placed on authorised retailers are unnecessary to ensure that interests are of customers are protected; or

---

76 AEMC, Review of regulatory arrangements for embedded networks, Consultation Paper submissions: AER, p. 4; ECA, p. 10; SACOSS et al, p.8.

77 ECA, Submission on the consultation paper, p.10.

78 SACOSS et al, Submission on the consultation paper, p. 8.

79 AER, Submission on the consultation paper, p. 7.

80 ATA, Submission on the consultation paper, p. 4.

81 Momentum Energy, Submission on the consultation paper, p. 2.

82 Momentum Energy, Submission on the consultation paper, p. 1.

- Customers within embedded networks are being subject to an unnecessary risk and are potentially vulnerable to exploitation."

5.1.2 Finding in the draft report

In the draft report, we suggested there was a case for making significant changes to the regulatory framework. We found the two tiered regulatory framework, which requires registration as a network service provider or an exemption, and authorisation as a retailer or an exemption, can result in:

- substantially different obligations in providing network and retail services between those entities supplying embedded network customers and those supplying standard supply customers
- differences in consumer protections for those customers within an embedded network and standard supply customers
- differences in compliance obligations, such as reporting, and enforcement consequences for registered exempt network service providers/exempt sellers.

These differences are discussed further in the remainder of this chapter, and in chapters 7, 8, and 9.

Differences of this nature may be appropriate in certain circumstances; for example, where there are fundamental differences in the nature of the services that are being provided to the relevant consumers or significant differences between the types of consumers that are supplied under each framework. However, under the current regulatory framework for embedded networks, these differences are primarily the result of matters that relate to the identity of the supplier of the services rather than anything related to the consumers receiving those services. For example, most consumers in embedded networks are likely to consider that the energy services they receive are identical to the services that a standard supply consumer receives from an authorised retailer, but the embedded network customer will receive lesser consumer protections simply because selling energy is not its supplier's core business. This approach is not consistent with a consumer-driven energy market.

While consumers can benefit from embedded networks, the draft report suggested it was appropriate to make changes to the regulatory framework so that it better protects consumers. Our research showed:

- very high growth in exemptions for embedded networks, which means they are no longer a minor exception to the standard supply model for networks with a small number of customers like caravan parks
- there could be embedded networks that have not obtained an exemption, which suggests there may be confusion among embedded network operators about whether they need to apply for a network service provider exemption
- the current framework with deemed exemptions makes it very difficult to obtain accurate information about the number and location of embedded networks and assess whether the operators of those networks are complying with their obligations

- the growth in exemptions may also be undermining the efficacy of the compliance framework by placing increasing pressure on the AER's regulatory capacity to enforce compliance with exemption conditions
- the AER's options for enforcing network exemption conditions are unsatisfactory
- as explained in section 4.5, the Embedded Networks rule change will address some but not all of these problems.

Consequently, we concluded that the existing regulatory framework should be changed so it remains fit for purpose in the face of the growth in number and scope of embedded networks. This would also promote greater alignment of regulation for retailers and network service providers of standard supply customers and embedded network customers.

5.1.3 Submissions on draft report

Submissions offered general or qualified support or, at least, accepted the case for change. Some highlighted possible unintended consequences and the imposition of new costs (the following chapters address comments on specific proposals). Others wanted the Commission to ensure their sector (e.g. Shopping Centre Council of Australia) or situation (Aurizon) was excluded from any changes.

The Electricity and Water Ombudsman South Australia supported the case for change. It said "(w)e generally agree with the AEMC that the current regulatory arrangements for embedded networks are no longer fit for purpose".[83] Similarly, the Electricity and Water Ombudsman Victoria said it "supports the AEMC's proposal for significant reform to address the deficiencies in the existing regulatory framework for embedded networks".[84] This was because "as far as possible, all energy customers should benefit from equal protections".

SACOSS and United Communities also agreed that the current exemption framework is no longer fit for purpose, and supported a new regulatory approach. PIAC agreed the "current regulatory system provides embedded network consumers with considerably less information and fewer protections compared with those on standard supply contracts".[85]

Energy Networks Australia also agreed the current regulatory framework for embedded networks "is no longer fit for purpose as it is resulting in some customers not being able to access competitive prices or important customer protections".[86]

EnergyAustralia offered this support for change:[87]

> "Arguably, more effective competition in energy markets reduces the need for industry specific regulation (in this case, the National Energy Customer

83 Electricity and Water Ombudsman South Australia, Submission on draft report, p. 1.

84 The Electricity and Water Ombudsman Victoria, Submission on the draft report, p. 1.

85 PIAC, Submission on the draft report, p. 2.

86 Energy Networks Australia, Submission on the draft report, p. 1.

87 EnergyAustralia, Submission on the draft report, p. 2.

> Framework or NECF). However, we share the Commission's view that the current regulatory framework for the sale of energy is no longer fit for purpose and that reform of the National Electricity Rules and National Electricity Retail Rules is necessary to account for the evolving competitive environment"

Its reasoning was as follows:[88]

> "The 'two tiered' framework, whereby market participants are either authorised retailers and exempt entities undermines the notion of competitive neutrality, distorting investment decisions or creating a bias in favour of specific operating models. Therefore, it is a problem that commercial entities essentially providing the same service face different regulatory obligations and are subject to different degrees of regulatory oversight. More significantly, customers of different entities do not have access to the same protections even where they are purchasing the same service."

It added that it saw "a need for greater certainty, proportionality and transparency".

Origin Energy noted the draft report recommended "significant changes to the regulatory framework for embedded networks". Origin said that, at least for residential customers, it "believes that this is appropriate given the evolution of embedded networks towards an increasingly popular solution for strata title developments".[89]

The submission from the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd was supported by the Caravan Parks Association of South Australia. This submission expressed less support for change. It said it understood the desire from stakeholders for change but was concerned about the costs that changes might impose on embedded network operators.[90] Its submission was typical of this concern, also held by some other stakeholders (see below), when it said:[91]

> "...the submissions from some stakeholders on the AEMC Review of Regulatory Arrangements for Embedded Networks Consultation Paper, 11 April 2017 (Consultation Paper) indicate that consumer protections, compliance and enforcement, and measures to facilitate better access to retail market competition need to be strengthened for some embedded network types. We can see that several of the proposals in the Draft Report would contribute to that goal. However, we are concerned that the proposals put forward in the Draft Report will not promote the "efficient investment in, and operation of, electricity services for the longterm interests of consumers" in NSW holiday parks and residential land lease communities. Aspects of the proposed changes are likely to impose an

88 ibid.

89 Origin Energy, Submission on the draft report, p. 1.

90 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Submission on draft report, p. 2.

91 ibid.

unnecessary compliance burden and costs (many of which are currently unknown to stakeholders) on the operators of these embedded networks."

The Caravan Parks Association of Queensland held similar concerns about the "unnecessary and costly compliance burden" the proposal might have on the businesses they represent.[92]

The Shopping Centre Council of Australia displayed the most concern about the sweeping nature of the changes proposed:[93]

> "We are deeply disappointed with the AEMC's Draft Report. In light of the apparent issues raised in relation to residential networks, the AEMC has not assessed embedded networks in our sector in sufficient detail, which has resulted in our sector being inadvertently captured amidst issues that seem evident in other (e.g. residential) sectors, and the associated 'need' for change."

It went on to suggest "there is a strong basis for the AEMC to recommend the continuation of the exemption framework for shopping centres, particularly as the exemption framework is proposed to be retained for 'legacy' networks, and existing targeted exemption categories (e.g. R1, R5)".[94]

Both the Caravan Parks Association of Queensland and the Shopping Centre Council of Australia noted other laws that regulated the activities of their members and objected to electricity-specific legislation that would duplicate or confuse existing requirements:

- The Caravan Parks Association of Queensland noted that caravan parks in Queensland with permanent residents that on-sell metered electricity "are regulated by the Residential Tenancies and Rooming Accommodation Act 2003 (RTA) and/or Manufactured Homes (Residential Parks) Act 2003(MHA)"[95] Accordingly, it recommended "(n)ational legislation not be developed which duplicates or is in conflict with existing state legislation".[96]
- The Shopping Centre Council of Australia noted that "(o)ur sector's relationship with tenants is highly regulated under retail tenancy legislation, and also provisions of the Competition and Consumer Act 2010".[97]

Flow's support for change was tempered by the suggestion that the proposed changes would have perverse consequences:[98]

> "While Flow believes some of the current regulatory framework is not fit for purpose and needs amending to improve customer protections and

92 Submissions on the draft report, Caravan Parks Association of Queensland, p. 3., Caravan Parks of South Australia, p. 1.

93 The Shopping Centre Council of Australia, Submission on the draft report, p. 1.

94 ibid.

95 The Caravan Parks Association of Queensland, Submission on the draft report, p. 1.

96 The Caravan Parks Association of Queensland, Submission on the draft report, p. 3.

97 The Shopping Centre Council of Australia, Submission on the draft report, p. 6.

98 Flow, Submission on the draft report, p. 3.

competition, the AEMC's proposal to close exemption schemes entirely will create significant perverse outcomes for both customers and embedded network operators – including next generation local providers essential to more affordable and resilient energy services."

The Centre for Energy and Environmental Markets, UNSW Australia, supported this argument:[99]

> "Whilst we agree that some exempt customers have been badly served by exempt retailers and embedded network operators under the current arrangements, we do not agree with the Commission's view that these issues can only be resolved through abolishing the exemption framework. Importantly, the Commission states that its recommendations 'are not intended to create a barrier to the continued operation and establishment of embedded networks where they offer benefits to consumers,' but we are concerned that removal of the exemption framework may do just that."

5.1.4 Consumer experiences we collated

We received several general and specific consumer experiences that illustrate the types of disputes that can occur and the resources expended on both sides when customers without a choice are unhappy with the electricity arrangements within their embedded network.

ARPRA[100] and resident representatives from residential land lease communities relayed to us stories from residents who raised concerns with the electricity billing arrangements in their embedded network. These stories have been amalgamated into cases 1 to 3, which follow. The final case (case 4) is one we received from an apartment owner unhappy about being caught in an embedded network comprising his new apartment building in New South Wales.

Land lease communities offer a gated estate where you own the physical structure of the home but rent the land that the home sits on. These communities have grown out of existing caravan parks, which already have a mix of temporary and permanent residents.[101] The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd says:[102]

> "Although corporate ownership is increasing, many holiday parks and residential land lease communities remain in private ownership. They are small and medium family businesses where the on-selling of energy via an embedded network is genuinely ancillary to their core functions. The operators of these parks and communities know the residents well and in many cases, they live with them on site."

---

99 The Centre for Energy and Environmental Markets, UNSW Australia, Submission on the draft report, p. 4.

100 According to its website (www.arpra.org.au), ARPRA is the peak body representing residents living in Residential Land Lease Communities in NSW.

101 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Submission on draft report, pp.2- 4.

102 Ibid, p. 4.

According to ARPRA, there are around 33,000 households in residential land lease communities in New South Wales, a similar number in Queensland, around 10,000 in Western Australia and small numbers in Victoria, South Australia and the Australian Capital Territory.[103] Many communities are operated as embedded networks. ARPRA told us the majority of residents are over 55 years old, are first time residents, and are pensioners on a relatively low fixed income.

Case 1: Confusion about network charging in land lease communities

ARPRA and resident representatives relayed stories that raised a number of concerns about network charges. Park owners in New South Wales charge residents a portion of the local area retailer's Service Availability Charge (SAC), depending on the level of supply at their residential site (measured in amps). There were several cases about disputes over whether sites could draw the amps park owners claim are available. In these disputes, residents may have to employ an electrician, at their own expense, if they wish to contest the SAC to determine the amps capable of being supplied to their site.

It was apparent from the cases relayed to us that both park owners and residents are unsure what the SAC should cover. Residents relayed a perception there was a sizeable amount of money raised by the SAC, over and above the electricity bills park owners received. The residents could not reconcile the amounts being collected with the level of service and supply (compared with standard supply) they were receiving from the electricity infrastructure in the communities.

If disputes cannot be amicably resolved with the park owner, residents can go to the NSW Civil and Administrative Tribunal (NCAT) for redress around the SAC, though with uncertain and mixed results because of the complex nature of the disputes.

Case 2: Electricity billing below reasonable expectations in land lease communities

ARPRA and resident representatives relayed several cases where bills have fallen short of standards required in the condition of the on-selling exemption. For instance, residents might receive bills with only the total kWh consumed and the total dollar amount due. Falling short of normal billing standards causes these residents to be suspicious that meter readings are being manipulated. Resident representatives told us some residents say they have received a bill for a period of time where they have been living off-site, yet the bill has not decreased. Resident representatives also complained that meters were not accessible for residents to check readings, in contravention of 4.2.2.1 of the network exemption guideline.

Case 3: Level of electrical supply available in land lease communities below expectations

ARPRA and resident representatives relayed the experience of people buying manufactured homes in land lease communities. They said that manufactured homes look like any other house. People that buy them are not informed or simply do not expect the electrical supply available to their home might be less than the standard supply. The only clue might be that their home does not have an air conditioner installed. Residents become aware of the fragile nature of the electrical infrastructure

103 Confirmed at a meeting with ARPRA on 28 September 2017.

within the park during the process of applying to the park owner to install any new major appliance (an air conditioner, in particular). Resident representatives said that park owners often routinely reject applications on the grounds the power consumption of the appliance is too high.

Case 4: Apartment owners captured by utility contracts drawn up by property developer

A committee member of an owners corporation relayed to us their experience in a new apartment building in New South Wales. We have found on-selling and network exemptions that were registered with the AER under the name of the owners corporation for the apartment building. At the first annual general meeting, the committee for the owners corporation was formed and told by the property developer they were required to sign ten year fixed term contracts with a company arranged by the property developer for utilities, including electricity. The committee was told it would get very competitive electricity rates from the company arranged by the property developer. The electricity rates turned out to be higher than the standing offer and apartment owners are very unhappy with the rates and amounts they are being billed. They are also unsure if the billing company or the owners corporation is responsible and they are seeking legal advice about how to resolve the matter.

A number of submissions also raised concerns about maintaining embedded networks in a safe condition. The AER said "(w)e consider that, while dependent on the resources and expertise of the ENO, in practice there is limited incentive for the ENO to maintain network infrastructure due to limitations on what they can charge to cover the costs of maintaining the network".[104] Origin Energy pointed out that "the electrical infrastructure of a high rise building is the same regardless of being an embedded network or not. We would therefore expect that there would be no distribution obligations attached to the ENSP with respect to this infrastructure".[105] Energy Networks Australia contended that "energy infrastructure access within an embedded network should be considered an essential service and that customers within embedded networks be able to expect equivalent standards of infrastructure service including performance and reliability as customers on the shared network".[106] SACOSS and others said that "The safety and security of supply to consumers in an EN must be a paramount consideration of the AER in granting an exemption".[107]

We recognise that the cases above are from residential and not commercial customers and may not be representative of the experiences of all consumers within embedded networks. We also acknowledge the statements we received in submissions that reinforced the benefits some embedded network customers enjoy. For instance:

104 AER, Submission on the consultation paper, p. 17.

105 Origin Energy, Submission on the draft report, p. 4.

106 Energy Networks Australia, Submission on the draft report, p. 2.

107 SACOSS et al, Submission on the consultation paper , p. 3.

- The Caravan Parks Association of Queensland said it conducted a small survey of its office staff and "determined that by living in a caravan park our staff could be saving up to 50% of their current electricity bill".[108]
- EnergyAustralia suggested embedded networks offer "considerable benefits to many customers".[109] It agrees with the Commission that embedded network service providers may be able to purchase energy at a bulk rate at a lower cost than would be available to individual small customers outside the network. It said that there is "still a compelling commercial incentive to provide a high level of service (in order to retain tenants, for example)". Also, it said customers "typically receive a bundle of services, which can create some efficiencies in billing or other aspects of service delivery". Finally, it said it was also "observing innovative pricing, which can involve profit sharing or benefit sharing in the event of network or wholesale market arbitrage opportunities".[110]

The Centre for Energy and Environmental Markets of UNSW said:[111]

> "When discussing consumer benefits of embedded networks or any other mode of energy supply, it is important to consider a wider range of benefits beyond energy pricing. As well as lower energy bills through bulk purchase of electricity, potential financial benefits may include smaller strata charges or reduced rent, or long-term hedging against price increases. Indeed, as the capital costs of embedded networks cannot be recovered through energy charges, apartment owners and residents, for example, already need to consider these broader financial impacts in assessing the costs and benefits of different business models. Groups of consumers may also elect to establish an embedded network for nonfinancial reasons: to access renewable energy, reduce their carbon emissions or to gain control of their energy supply."

OC Energy suggested other benefits of embedded networks are more important to customers than simply low prices, for example:[112]

- OC Energy often leaves power connected to the apartment for the convenience of the next occupant, and if it is disconnected, it guarantees same day connection
- customers are offered simple and easy-to-understand rates with no promotional discounts or 'lock in' contracts
- customers that accidentally trip/overload isolators that protect the meters are reconnected the same day free of charge.

108 The Caravan Parks Association of Queensland, Submission on the draft report, p. 2.

109 EnergyAustralia, Submission on the draft report, p. 2.

110 EnergyAustralia, Submission on the draft report, p. 3.

111 The Centre for Energy and Environmental Markets of UNSW, Submission on the draft reoirt, p. 5.

112 OC Energy, Submission on the draft report, p. 3

5.1.5 Conclusion

After considering stakeholder feedback on the draft report, we continue to hold the view that the existing regulatory framework should be changed so it remains fit for purpose in the face of the growth in number and scope of embedded networks.

However, we have noted the qualifications and comments from some submitters on the changes proposed and consider them in following chapters.

Some stakeholders were concerned about the costs that changes might impose on embedded network operators (e.g. The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, and The Caravan Parks Association of Queensland). We acknowledge there may be extra costs associated with the changes proposed, however, the Commission considers these costs can be minimised through the implementation phase and will be proportionate to the benefits of the proposed changes. Section 8.2.5 discusses proportionality and regulatory burden.

Some stakeholders were disappointed that their sector might be captured to deal with issues that seem evident in another (e.g. residential) sectors (Shopping Centre Council of Australia, The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd). In short, the Commission maintains the view that the focus under the new framework is on the consumer, rather than the supplier, and all small customers (residential and business) should be able to expect the same access to competition and consumer protections. Section 8.3 discusses sector specific issues in more detail.

We also noted the desire that national legislation not be developed that duplicates or is in conflict with existing state legislation (The Caravan Parks Association of Queensland, Shopping Centre Council of Australia). As energy is an essential service, the Commission believes energy specific consumer protections are necessary for embedded network consumers and, to the extent possible, these should be implemented in a nationally consistent way. As such we made recommendations based on the long term interests of energy consumers consistent with the NEO and NERO.

We specifically acknowledge the confusion around specific jurisdictional schemes that cap standing charges for small embedded network customers, including in residential land lease communities such as caravan parks and manufactured home estates. We think the degree of confusion is sufficient that jurisdictional governments may wish to review how these schemes interact with the NECF. Also, given the number of submissions on safety issues, States and Territories may also wish to consider whether safety and reliability monitoring regimes for embedded networks and similar shared electrical infrastructure remain appropriate.

Given concerns that have been raised regarding the contractual relationships developers and body corporates may enter into in relation to establishing embedded networks, jurisdictional governments may also wish to consider reviewing

jurisdictional strata laws and make any necessary changes to remove barriers to embedded networks customers accessing retail market offers.[113]

Finally, we noted concerns the proposed changes will create perverse outcomes for customers and embedded network operators (Flow). We accept changes that make switching to on-market retailers easier may result in some incumbent on-sellers losing customers. However, this benefits consumers by sharpening firms' incentives to meet their customer's wants and needs. In the long run, those that do will thrive and those that do not will not. We do not agree that this outcome is perverse. Section 7.4 contains further discussion on this subject.

5.2 Access to retail competition

5.2.1 Submissions on the consultation paper

We split the submissions to our questions in the consultation paper, on how to improve access to retail competition, into four categories:

- support for greater competition in embedded networks
- a view that the ENM role commencing on 1 December 2017 will fix problems with access to competition
- a view that embedded network customers were unlikely to be motivated to seek retail competition
- examples of the barriers to achieving levels of competition enjoyed by standard supply customers.

We received a number of comments on the benefits of improving retail competition within embedded networks. The AER suggested that "true competition in embedded networks is the missing element that would offer the greatest benefit to customers".[114] Energy Australia said something similar: "Competition in the retail space between traditional retailers and emerging business models is the best way to get optimal outcomes for consumers."[115]

Network Energy Services provided the view that it expected the ENM role to resolve most of the competition issues[116] but the AER disagreed:[117]

> "In embedded networks customers' access to retail competition is restricted or prohibited (depending on the jurisdiction), for a variety of reasons.

---

113 For example, The Owners Corporations Act (Vic) allows the owners corporation to decide by special resolution (75%), to provide services to members and occupiers. The owners corporation may decide:
(a) to provide a service to lot owners or occupiers of lots or the public; or
(b) to enter into agreements for the provision of services to lot owners or occupiers of lots.
Further, an owners corporation may require a lot owner or occupier to whom a service has been provided to pay for the cost of providing the service to the lot owner or occupier.

114 AER, Submission on the consultation paper, p. 3.

115 Energy Australia, Submission on the consultation paper, p. 2.

116 Network Energy Services, Submission on the consultation paper, p. 2.

117 AER, Submission on the consultation paper, p. 2.

> While the AEMC's embedded networks rule change . . . will assist customers to receive supply from a retailer of their choice, this change alone will not resolve the issue of access to competition. Few retailers offer energy only contracts as there is little competitive pressure on retailers to offer them and no other incentive to do so. In addition, wiring individual customers out of the embedded network, to allow them to access generally available retail offers, is usually cost prohibitive for customers."

The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd represented the view of some embedded network operators that embedded network customers were unlikely to need or want access to other retail offers:[118]

> "The likelihood of customers in NSW holiday parks and residential land lease communities seeking to go on-market is low, should it happen at all. Pricing limits imposed by NSW legislation and the AER guidelines on these businesses makes it unlikely that customers will seek retail competition, as the incentive to do so is limited."

Origin, Flow, and AGL commented on the barriers retailers and embedded network customers face trying to achieve retail competition for embedded network customers.

Origin's view was that the "biggest barriers for customers accessing markets has been ensuring that appropriate metering infrastructure is installed and that customers have been discoverable in MSATS".[119]

Flow suggested that the "lack of bundled tariff transparency" (e.g. no separation between network, retail, and generation costs) remains a barrier to improved competition as exempt embedded network service operators are not able to clearly demonstrate the financial value and competitive advantage they add to consumers.[120]

AGL's view of the practical difficulties retailers face trying to provide embedded network customers with greater access to retail competition was:[121]

> "Without certainty over operations sections of the regulatory framework, such as published network tariffs, Use of System charges, data requirements and billing information, the process of providing embedded network customers with retail services could be very difficult and costly."

The AER and the Ombudsmen referred to cases they had received about the problems embedded customers had accessing retail competition. Both the Electricity and Water Ombudsman New South Wales (EWON) and the Electricity and Water Ombudsman Queensland (EWOQ) provided cases that highlighted the practical problems embedded customers faced. For example:[122]

---

118 Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Submission on the consultation paper, p. 4.

119 Origin Energy, Submission on the consultation paper, p. 6.

120 Flow, Submission on the consultation paper, p. 9.

121 AGL, Submission on the consultation paper, p. 3.

122 EWOV, Submission on the consultation paper, p. 3.

"**No choice of retailer**

The customer moved into an apartment in Melbourne's CBD and was surprised to find that she did not have the option to choose an electricity retailer. She wanted to know if this was genuine information and if the embedded network was an 'approved electricity retailer'."

5.2.2 Finding in the draft report

In a competitive market, customers have the ability to choose from a range of suppliers and can reject a supplier's offer. As a result, suppliers in competitive markets face incentives to improve products, offer a variety of products that customers want, and offer products with better prices and conditions so that customers are likely to choose to purchase them. This incentive, not the attractiveness of obtaining a local monopoly, is the efficient driver of product differentiation, innovation, quality improvements and cost reductions in a competitive market.

While the ENM will perform the market interface functions that link embedded network customers to the national electricity market systems, an ENM is only required to be appointed within a subset of embedded networks. We agree with the concerns of consumer advocates and Ombudsmen that significant numbers of embedded network customers are likely to continue to be frustrated by limited access to retail competition.

Stakeholders have also confirmed there are a number of other deterrents to existing authorised retailers providing services to embedded network customers wishing to go on-market in embedded networks that will continue after implementation of the ENM role on 1 December 2017.

First, market retailers can be unable or unwilling to make offers to off market customers because they cannot confirm their existence and cannot access their customer data, even with the customer's consent. Putting the customer on-market is also a manual and resource intensive process. It is not possible for the on-market retailer to use their standard on-market systems in order to make an offer and start the retailer change process. The retailer must make contact with the embedded network service provider, or the ENM where they exist, in order to undertake a manual transfer process. The ESP is often related to the off-market exempt seller/authorised retailer and generally has little incentive to minimise the effort expended and cost consumed by their on-market competitor.

Second, it is costly for retailers to develop and offer suitable services and pricing offers for embedded network customers seeking to go on-market. The additional complexity of providing retail services is unlikely to deter retailers from offering and negotiating services with large customers. However, the cost associated with this additional complexity is a commercial barrier to retailers developing services for small customers.

Third, for an embedded network customer to be able to go on-market, an embedded network manager needs to be appointed, and the retailer and its Metering Coordinator are likely to wish to enter into an arrangement with the embedded network operator for use of the metering installation. Again, the commercial complexities for the retailer, and/or Metering Coordinator, in entering arrangements with large numbers of

embedded network operators deter retailers from making offers to small customers in embedded networks.

The Commission is of the view that these issues present practical barriers to embedded networks customers accessing retail market offers if they are unsatisfied with their embedded network selling arrangement. We have identified two potential scenarios under the current regulatory arrangements that could have significant adverse consequences for off-market and on-market customers.

Scenario 1 - off-market embedded network customer of exempt seller

An embedded network operator sources electricity from a retailer at the parent connection point and then on-sells it to its embedded network customers as an exempt seller. Exempt sellers may be able to negotiate a lower price with an authorised retailer at the parent connection point than each individual embedded network customer is able to negotiate due to the increased total load giving them additional bargaining power and access to lower network tariffs.

Where barriers to embedded network customers accessing retail market offers exist, some embedded network operators face limited incentive or obligation to pass those savings on to customers. This is because the customers cannot easily source energy from an alternative provider. The exempt seller is able to charge tariffs up to the standing offer price for small customers and any price for large customers.

This may result in an outcome where embedded network operators, as an exempt seller, face an incentive to bargain with a retailer to obtain the best price at the parent connection point, but a weaker incentive to pass on any savings made at the parent connection point to embedded network customers.

Scenario 2 - embedded network customer of authorised retailer

With the trend towards larger scale embedded networks, in which there could be more than 1,000 customers, embedded network operators are obtaining a retailer authorisation rather than on-selling electricity under a retail exemption. Some authorised retailers are also entering the embedded network market; on-selling to embedded network customers under their retail authorisation. In this scenario, embedded network customers may face barriers to switching to another retailer because any incoming retailer would have to negotiate network and metering arrangements with its direct competitor in the retail market, the authorised retailer (embedded network operator or authorised retailer) retailing at the parent node.

As in scenario 1, where barriers to embedded network customers accessing retail market offers exist, some embedded network operators that have become authorised retailers face limited incentive or obligations to pass savings on to customers because the customers cannot easily source energy from alternative providers. Furthermore, in this scenario, the authorised retailer would not be restricted to charging a price up to the standing offer price because the exempt selling conditions would not apply. Customers in these embedded networks will therefore find themselves supplied by a near-monopoly supplier that is not subject to either competitive market pressures or price regulation, resulting in a significant risk of the customer being charged excessive prices.

5.2.3 Submissions on the draft report

No stakeholder argued in their submission that embedded network customers had similar access to retail competition or switching away from the exempt seller was straightforward. However, that did not translate into universal support for changes to remedy the situation. The Shopping Centre Council of Australia said that:[123]

> "AEMC assertions about lack of access to competition are simplistic. Many shopping centre tenants are on market."

Similarly, Aurizon Network said "it is apparent from the Draft Report that the proposed reforms are intended to address challenges for small residential and commercial embedded network customers associated with the existing framework" and this context is "fundamentally different to Aurizon Network's electric traction network".[124] However, it was concerned there is a risk the changes proposed would apply to organisations such as Aurizon Network. It was concerned that the changes "may result in an expensive and unnecessary loss or change to the existing exemption that it holds from the requirement to be registered as a network service provider and/or a requirement to obtain a retail authorisation".

In contrast, the AER reiterated that the introduction of competition in embedded networks constitutes the single most significant improvement to the operation of the embedded network market. In its view, improving embedded network customers' access to competition is "likely to address many of the issues we currently see in this market".[125]

The Energy and Water Ombudsman of South Australia supported changes to improve the ability of retailers to identify customers within embedded networks and provide prices and offers which can be compared by those customers.[126]

However, the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd again suggested the impact of the appointment of embedded network managers be assessed before embarking on further regulatory changes.[127] OC Energy argued embedded network managers would facilitate customer access to the retail market, should a customer wish to opt out of an embedded network.[128] It went on to suggest this important regulatory change would make it easier for an unhappy customer to leave an embedded network and did not support further changes that would undermine "the ability of ENOs to genuinely pass on cost savings and efficiencies to customers".

Flow said it supports open data and increased access to market offers but "strongly believes that the publication of off-market meters on MSATS will open embedded networks to unfair predatory marketing practices currently utilised by tier 1, and some

123 Shopping Centre Council of Australia, Submission on the draft report, p. 3

124 Aurizon Network, Submission on the draft report, p. 1.

125 AER, Submission on the draft report, p. 1.

126 Energy and Water Ombudsman of South Australia, Submission on the draft report, p. 1.

127 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Submission on the draft report, p. 4.

128 OC Energy, Submission on the draft report, p. 1.

tier 2, energy retailers".[129] It referred to cases it believes demonstrate unfair utility connection service practices that prevent customers from becoming aware "of the potential savings they could achieve from embedded network pricing" and provide them the "option to sign up to a very limited number of providers as part of their rental agreement".[130] It goes on to say there are "companies offering these new tenant deals in partnership with the real estate companies" and they are "reportedly subsidiaries of/or have a relationship with larger energy retailers". This "reduces transparency and choice for customers who are only exposed to a handful of options and never the local embedded network services offer".

PIAC also expressed concern the AEMC's focus on access to competition treats competition as a goal in itself, rather than as a method for improving consumer outcomes, given retailers may have little interest in acquiring child customers due to the costs involved (including metering, metrology, and electrical works).[131] The Centre for Energy and Environmental Markets, UNSW Australia offered the view that the value of improving access to retail competition depends on the effectiveness of such competition, which it went on to express concerns about.[132]

5.2.4 Conclusion

While we acknowledge there are some embedded network customers enjoying the benefits presented to us in case studies and submissions, we are not persuaded those benefits justify limiting the choices available to all customers. Accordingly, we conclude that changes are necessary so more embedded network customers are afforded the opportunity to choose a retailer comparable with standard supply customers in the same jurisdiction.

We have noted the qualifications and concerns from some submitters about improving access to competition and these are discussed in the following chapters.

Some stakeholders were concerned that increasing competition in embedded networks opens them up to unfair predatory marketing practices (Flow). While it is important that consumers are able to make informed choices, we do not consider the issues raised by Flow are a valid reason not to make changes that would increase competition within embedded networks. Section 7.4.3 considers this concern further.

We acknowledge the view expressed by the Shopping Centre Council that problems being experienced by residential customers do not occur in the businesses they represent. However, while we did not receive specific submissions from shopping centre tenants and only some shopping centre tenants are large businesses, it is important that all small customers, including small businesses, are able to access competition and receive appropriate consumer protections. This issue is discussed further in Section 8.3.

---

129 Flow, Submission on the draft report, p. 4.

130 Flow, Submission on the draft report, p. 5.

131 PIAC, Submission on the draft report, p. 2.

132 The Centre for Energy and Environmental Markets, UNSW Australia, Submission on the draft report, p. 3.

Some stakeholders were concerned the costs of change will be greater than the benefits bestowed by greater competition (PIAC, The Centre for Energy and Environmental Markets, UNSW Australia). The Commission expects that the benefits will be substantial for some consumers and we expect to be able to minimise costs through careful design during the implementation phase.

Suggestions the imminent appointment of embedded network managers should be allowed to have an effect before making further changes to the law and rules (The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, OC Energy) were considered in the draft report. We continue to hold the view that it would not be appropriate to take a 'wait and see' approach and that there is potential to build on the ENM role to further improve access to competition for embedded network customers. However, we note that the next phase of the project would provide an opportunity to better assess the benefits and costs of specific rule changes.

5.3 Consumer protections

5.3.1 Submissions on the consultation paper

Retailers and consumer advocates made submissions that broadly called for significant changes to the regulatory framework for embedded networks that would align consumer protections and regulate embedded networks services in the same way as equivalent services provided to standard supply customers. These stakeholders also suggested a broad review of the NECF and consumer protections are warranted.

Consumer advocates generally agreed "that, as a guiding principle, all energy and water customers should have access to the same consumer protections".[133] They also suggested that customers of embedded networks currently lack the same level of consumer protection afforded to customers of retailers under the NECF.

On the other hand, embedded network operators currently holding network and retail exemptions considered the existing exemption framework provided a cost effective and proportional approach and may only require minor improvements.

At one end of the scale, the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd did not think any change was necessary and other legislation relating to the primary business of holiday parks (holiday accommodation) and residential land lease communities already provide sufficient consumer protections for embedded network customers. Living Utilities and Network Energy Services both suggested most of the problems for off-market embedded customers should be solved by the Embedded networks rule change:[134]

> "The provision of an offer within the embedded network (off-market) and some options from Retailers (on-market) should provide the customer sufficient ability to have a fair and reasonable offer and also provide the ability to negotiate. With the Rule change coming into effect in December

133 Electricity and Water Ombudsman New South Wales, Submission on the consultation paper, p. 3.

134 Living Utilities, Submission on the consultation paper, p. 11.

2017, it is to be seen how Retailers will respond as the implied barriers to competition will be significantly reduced."

The Victorian Caravan Parks Association Inc. (VicParks) contended that the Residential Tenancies Act 1997 already provides comprehensive protection for consumers in an embedded network, for example:[135]

> "The RTA (206ZG) specifically requires that a park owner "must not seek payment ….that is more than the amount that the relevant supplier would have charged the site tenant"."

However, Active Utilities suggested the "biggest gap under the exemption framework is the lack of or ease of access to Concessions and Ombudsman schemes for consumers." [136]

The Energy and Water Ombudsman South Australia (EWOSA) does "not believe that the current arrangements regarding the ability of small energy consumers within embedded networks to access the dispute resolution services of energy Ombudsmen satisfy the consumer protection test under the National Energy Retail Law".[137]

The AER submitted that the exempt selling conditions have been designed to largely mirror the consumer protections provided to customers of authorised retailers, as required by the NERL.[138] However, it also suggested that equivalent consumer protections may not be realistic given the "diverse collection of individuals or businesses that have markedly different resources, expertise and motivations".[139]

The South Australian Council of Social Service (SACOSS) provided a joint submission with St Vincent de Paul Society, Ethnic Communities' Council of NSW, and the Consumer Action Law Centre. SACOSS and the signatories provided a list of eight recommendations that would modify the existing framework to enhance protections for consumers in these and other types of embedded networks, such as:[140]

> "The AEMC/AER investigate the option to establish a new category of exemption that would apply to exempt on-sellers (and embedded network operators) that have a substantial number of customers and/or a substantial number of sites in total. The underlying principle here is that the exempt seller has a customer base equivalent to a small retailer and should therefore be subject to the same obligations and consumer protection conditions as a retailer."

Other recommendations included collecting and reporting information on compliance of embedded network operators and exempt sellers, reviewing brownfields

---

135 VicParks, Submission on the consultation paper, p. 5.

136 Active Utilities, Submission on the consultation paper, p. 5.

137 EWOSA, Submission on the consultation paper, p. 4.

138 AER, Submission on the consultation paper, p. 3.

139 AER, Submission on the consultation paper, p. 3.

140 SACOSS, St Vincent de Paul Society, Ethnic Communities' Council of NSW, and the Consumer Action Law Centre, Submission on the consultation paper, p. 10.

conversions, investigating third party service providers, and price control for 'behind the meter' customers.[141]

The Queensland Council of Social Service (QCOSS), the Energy and Water Ombudsman New South Wales (EWON) and the E Energy and Water Ombudsman Queensland (EWOQ) provided cases to illustrate the practical problems embedded customers faced. For example:[142]

> "EWON was contacted by four customers living in a retirement village which was established as an embedded network. The customers complained about frequent unplanned power outages, up to 20 per day of varying duration, over a period of about a month. They were concerned about the safety of the residents due to the outages and also about the inability to operate the village's powered gates in the event of an emergency. The embedded network operator advised EWON that it was in the process of redesigning the supply across the network, which included an application to the LNSP to increase the supply."

The Electricity Networks Association (ENA) suggested the AEMC consider extending more of the obligations of network service providers to exempt embedded network service providers. For instance, if embedded networks are providing infrastructure as part of the provision of an essential service, it asked if exempt embedded network service providers should be required to provide embedded network customers information about reliability in the embedded network.[143]

Energy Queensland was concerned that life support customers are identified with the DNSP, electrical safety is assured, concessions are applied to the appropriate customers, and prices to end users are equivalent with consumers on the broader network. It recommended that the same protections apply to both on- and off-market customers.[144]

Finally, the AEMC's Retail competition report included a chapter on embedded networks.[145] It contained results of a survey of retailers on embedded networks issues, which included the following comments:[146]

> "**2017 Retailer survey**
>
> ...A number of comments referred to the strong growth occurring in embedded networks and that such networks can save on network, wholesale and retail costs which can be passed on to consumers. Other retailer comments were more varied, noting both barriers and opportunities.

141 SACOSS, St Vincent de Paul Society, Ethnic Communities' Council of NSW, and the Consumer Action Law Centre, Submission on the consultation paper, pp. 10-12.

142 EWON, Submission on the consultation paper, p. 2.

143 ENA, Submission on the consultation paper, pp. 6-10.

144 Energy Queensland, Submission on the consultation paper, p. 4.

145 AEMC, 2017 AEMC Retail Energy Competition Review, Final report, 25 July 2017, chapter 9.

146 AEMC, 2017 AEMC Retail Energy Competition Review, Final report, 25 July 2017, pp. 170-171

One view identified that embedded networks are better suited to greenfield high end medium-density housing and therefore the market for retailers to compete is limited. Another set of comments claimed the regulatory and technical complexity of acquiring embedded network consumers seeking on-market offers is significant. This complexity, it is argued, has reduced competition in this growing market segment.

Another view was that network-wide optimisation with embedded generation and storage can deliver network and consumer benefits as this can be more efficient than optimisation at the individual consumer level, and can significantly reduce consumer energy and network costs. There was concern, however, that the benefits of optimisation could be diminished if consumers leave the network by taking up competitive market retail offers. In such cases, consumers exercising individual choice by leaving the embedded network could reduce network-wide optimisation benefits. The resulting reductions in system efficiency and cost savings reduced the benefits to those remaining in the embedded network.

One view also identified that the current exemption regime disadvantages authorised retailers over exempted sellers. Authorised retailers must provide a greater range of consumer protections to consumers, (such as hardship programs and access to dispute resolution schemes) while those requirements are less strenuous for exempted parties.

Other retailers see opportunities to operate in the sector through the exemptions regime. EnergyAustralia, for example, operates an exempted business: the Embedded Networks Company. This company acts as an agent for exempted embedded network entities, and operates in the commercial and residential segment. The Embedded Networks Company is involved with developers in the initial feasibility assessment and planning stages, and also at the consumer facing end. It provides consumers with an online platform with account management capabilities, billing, and complements this with local dedicated customer service."

5.3.2 Finding in the draft report

Submissions on the consultation paper confirmed to us that, in practice, different consumer protections apply in embedded networks due to gaps, practical difficulties or less onerous obligations under the exemption framework. We found that exempt customers currently do not receive an appropriate level of consumer protections, including for the following reasons:

- The AER considers it does not have the powers it needs to enforce exempt network conditions.
- The NERL and NERR cannot be applied to embedded network customers supplied by an authorised retailer because they rely on a tri-partite DNSP-retailer-customer relationship that does not exist for embedded networks.

- There are cases of embedded network customers being disappointed or frustrated because their exempt seller does not provide the same level of service they expect from an authorised retailer or their exempt network service provider does not provide the same reliability of supply they expect from an LNSP.
- It is the smaller and more vulnerable consumers that are most affected by the gaps in consumer protections.

5.3.3 Submissions on the draft report

There was broad support for the principle that customer protections afforded to retail customers under the NERL and NERR should be extended to embedded network customers, where practical. Some submitters offered views about which consumer protections mattered most or were not applicable to embedded network operators performing the on-selling or network functions.

The AER identified the retailer of last resort provision as being the only exception that should not apply to embedded network customers.[147]

AGL supported "the application of a minimum set of core consumer obligations on resellers of energy under NERR, in line with the NERO, and applicable to all legacy and new embedded networks". Such protections could include access to independent dispute resolution, connection/disconnection services, concessions, payment difficulty plans and life support provisions etc.[148] AGL also suggested that:

> "...in considering what specific protections should apply at a minimum, the AEMC should first assess whether the NECF, in its current form, is appropriate. This assessment should also include whether or not all existing energy specific consumer protections are necessary and fit for purpose, noting the continuing modernisation and digitalisation of the energy sector."

PIAC reiterated their support for universal minimum consumer protections and suggested "the AEMC should prioritise protections for exempt embedded network consumers and not wait for other regulatory reforms to provide vital consumer protections to currently under-protected consumers".[149]

SACOSS and Uniting Communities attached a table (Attachment A) to their submission that lists most of the current obligations imposed on authorised retailers under the NERL and the NERR, and indicated the consumer protections they proposed should apply as a minimum to authorised retailers supplying embedded network customers.[150]

147 AER, Submission to the draft report, p. 5.

148 AGL, Submission to the draft report, p. 4.

149 PIAC, Submission on the draft report, p. 8.

150 SACOSS and signatories, Submission on the draft report, p. 15., Attachment A

The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd offered only qualified support as they were concerned about legislative duplication and cost increases for its members. It said:[151]

> "NSW holiday parks and residential land lease communities are subject to additional regulatory controls at the State level and their embedded network customers already enjoy consumer protection for energy consumption. Consequently, the industry is not opposed to some of the consumer protection proposed in the Draft Report. However, we are opposed to legislative duplication of consumer protection. It is clear from the Draft Report that even operators of legacy embedded networks will face additional costs under a new framework, (e.g. fees for membership of an Ombudsman scheme)"

The Caravan Parks Association of Queensland offered less qualified support:[152]

> "We would also support the introduction of a minimum set of conditions which exempt authorised retailers must comply with, including dispute resolution (this could be expanded to include the relevant Civil and Administrative Tribunal), explicit informed consent, life support requirements, and disconnection requirements."

Energy Networks Australia offered unqualified support:[153]

> "Energy Networks Australia also supports a comprehensive review of the current energy related consumer protection arrangements for reasons discussed in Chapter 4 of the Network Transformation Roadmap released by CSIRO and Energy Networks Australia in April 2017."

EnergyAustralia said it supported the "principle that customers of exempt sellers should have a comparable level of protection as customers of licensed retailers". [154]

The Energy and Water Ombudsman New South Wales[155] and the Energy and Water Ombudsman South Australia[156] both supported the principle.

5.3.4 Conclusion

The considerable support we received in submissions has reinforced our view that real differences exist and changes are necessary so customer protections afforded to retail customers under the NERL and NERR can be extended to embedded network customers.

However, we have noted suggestions and concerns from some submitters.

---

151 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Submission on the draft report, p. 14.

152 The Caravan Parks Association of Queensland, Submission on the draft report, p. 3.

153 Energy Networks Australia , Submission on the draft report, p. 2.

154 EnergyAustralia, Submission on the draft report, p. 2.

155 Energy and Water Ombudsman New South Wales, Submission on the draft report, p. 1.

156 Energy and Water Ombudsman South Australia, Submission on the draft report, p. 4.

AGL suggested the AEMC should first assess whether the NECF, in its current form, is appropriate. This suggestion is beyond the scope of this project.

Some stakeholders suggested the AEMC should prioritise consumer protections for embedded network consumers ahead of our other proposed regulatory reforms (PIAC, SACOSS and Uniting Communities). The AEMC agrees some issues can be addressed ahead of broader regulatory reform. This is discussed further in Chapter 6.

5.4 Arrangements within gas embedded networks

5.4.1 Submissions on the consultation paper

There was general support for clarifying the framework that applies to gas embedded networks and for greater harmonisation of the gas and electricity framework for embedded networks, although only a small number of submitters commented on this topic.

Energy Consumers Australia[157] supported further harmonisation of gas retail arrangements. Energy Networks Australia[158] supported applying the broad objectives underpinning the regulatory framework for electricity.

The Shopping Centre Council submitted that the law and rules should allow for exemptions for gas embedded networks to avoid imposing wasteful costs on network operators:[159]

> "Some gas distributors are now requiring gas meters to be installed at the boundary of properties, which is a particular impost for shopping centres that often have various customers located across a large land area/centre. If followed to a logical conclusion, this would create wasteful long-runs of gas piping (greater than km at some developments). This would be an inefficient deployment of infrastructure, where an alternate embedded gas network would provide for more efficient infrastructure."

AGL also supported more harmonisation:[160]

> "AGL supports greater consistency and clarity with respect to the regulatory frameworks for gas embedded networks. Any national arrangements designed should mirror those for electricity as a way of minimising the complexity for duel fuel operators and, authorised retailers of electricity to on-market customers within embedded networks."

Active Utilities agreed but included a note of caution:[161]

> "Gas on selling has a complexity to its regulatory framework that sees it transition over multiple jurisdictions including the AER, AEMO, National Gas Law and Gas Industry Act for example in Victoria. Essentially it is

157 Energy Consumers Australia, Submission on the consultation paper, p. 13.

158 Energy Networks Australia, Submission on the consultation paper, p. 10.

159 Shopping Centre Council, Submission on the consultation paper, p. 14.

160 AGL, Submission on the consultation paper, p. 3.

161 Active utilities, Submission on the consultation paper, p. 6.

extremely difficult to on sell gas to a larger embedded network site unless you operate under retailer authorisation."

5.4.2 Finding in the draft report

We found there was a case for clarifying the arrangements that apply to gas embedded networks. The national retail exemption framework applies to the on-selling of gas and includes deemed exemptions for people who sell unmetered gas where gas is used for limited purposes. However, there is no national exemption framework for the distribution of gas through an embedded network.

We also considered that there was benefit in harmonising the regulatory framework of obligations and customer protections for embedded network operators in gas and electricity markets. Jurisdictional arrangements apply to gas embedded network operators and the approach varies significantly between jurisdictions.

5.4.3 Submissions on the draft report

Only a few stakeholders commented on the findings and recommendations for gas embedded networks in the draft report:

- The AER supported our proposal to harmonise arrangements for gas embedded networks[162]
- The Energy and Water Ombudsman South Australia also agreed, but expressed "a preference that a regulatory framework for gas embedded networks - which should be consistent with the framework for operators of electricity embedded networks - be established under the National Gas Law and National Gas Rules, as well as the NERL and NERR, rather than through jurisdictional legislation".[163]
- Simply Energy "agreed that the COAG Energy Council should work together to set up a regulatory framework for the operation of embedded gas networks that is consistent with the requirements of authorised participants in the National Electricity Market".[164]

5.4.4 Conclusion

After considering the feedback from submissions, we continue to hold the view that there is benefit in harmonising the regulatory framework of obligations and customer protections for embedded network operators in gas and electricity markets. This is discussed further in section 6.4.

162 AER, Submission on the draft report, p. 7.

163 The Energy and Water Ombudsman South Australia, Submission on the draft report, p. 4.

164 Simply Energy, Submission on the draft report, p. 2.

6 Overview of approach

This chapter outlines:

- a summary of the AEMC's findings and an overview of our approach and final recommendations to address the key issues that have been identified with the current regulatory framework in relation to access to retail market competition, consumer protections and monitoring and enforcement regimes in embedded networks
- expected costs to market participants and market bodies of implementing these proposed changes
- expected benefits to consumers in embedded networks
- an overview of next steps to implement the AEMC's recommendations
- an overview of recommendations that the Commission recommends be implemented as a matter of priority during an interim period
- recommended next steps for reviewing issues in the jurisdictional frameworks for gas embedded networks.

6.1 Overview of approach

6.1.1 Summary of findings

The AEMC has found that the exemption framework is no longer fit for purpose in the face of the growth in number and scope of embedded networks. The Commission does not consider an appropriate balance between innovation, consumer protection, and access to retail market competition is being achieved in the two-tiered framework which regulates embedded network service providers and exempt sellers outside of the national framework under the NER and NERR.

We have come to the view that important policy principles, such as providing appropriate regulatory arrangements for exempt sellers and access to competition and consumer protections, are not met by exempting the operators of embedded networks from important regulatory obligations and market arrangements.

The underlying rationale for the exemption framework is to reduce the regulatory burden where the cost of registering as a network service provider or having a retailer authorisation outweighs the benefits to consumers.

In practice, we have found embedded networks customers receive a lesser level of consumer protections and a limited monitoring and enforcement regime 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.

We have also found significant practical barriers to customers in embedded networks accessing retail market competition, which means that embedded network customers have limited ability to change supplier if they are unhappy with the price they are paying or level of service that they are receiving. In addition, there are a number of

provisions in the NERL and NERR that do not operate effectively for embedded networks, as identified by the AEMC's embedded network's rule change.

The recommendations in this final report are not intended to create a barrier to the continued operation and establishment of embedded networks where they offer benefits to consumers. Instead, the intention is to provide customers in embedded networks with appropriate consumer protections and increased access to retail competition.

Provided that they are appropriately regulated, the Commission considers that embedded networks can provide benefits to consumers by way of discounted prices and non-price benefits such as multi-service offerings, more environmentally sustainable housing and greater access to embedded generation. However, due to a lack of competitive pressure and appropriate consumer protections, the Commission considers that many embedded network consumers are not currently receiving benefits from these arrangements.

6.1.2 Rationale for recommended approach

The Commission agrees with stakeholders that electricity is an essential service. As suppliers of an essential service, the Commission is of the view that the embedded network service providers and on-sellers that serve small customers[165] should meet a set of minimum standards and be subject to an appropriate level of enforceable consumer protections.

Consumer protections, including monitoring and enforcement of those protections, are not costless but are necessary in respect of the provision of an essential service. Similarly, there are costs involved in establishing market rules and systems to allow businesses to compete for customers. However, access to competition is also an important form of consumer protection and any approach taken must consider how this be improved to benefit consumers.

To address the issues that have arisen in relation to access to retail market competition, consumer protections and monitoring and enforcement regimes we have made final recommendations for changes under three themes:

(a) ***Improving access to retail market competition*** in legacy embedded networks[166] to the extent possible

(b) ***Elevating embedded networks into the national regulatory framework*** under the NER and NERR, which will involve significant reform of the two-tiered regulatory framework for new embedded networks arrangements and reserve network service provider and selling exemptions for a narrow set of circumstances

---

165 As defined in section 5(2) of the NERL, a 'small customer' is a customer who is a residential customer; or who is a business customer who consumes energy at business premises below the upper consumption threshold.

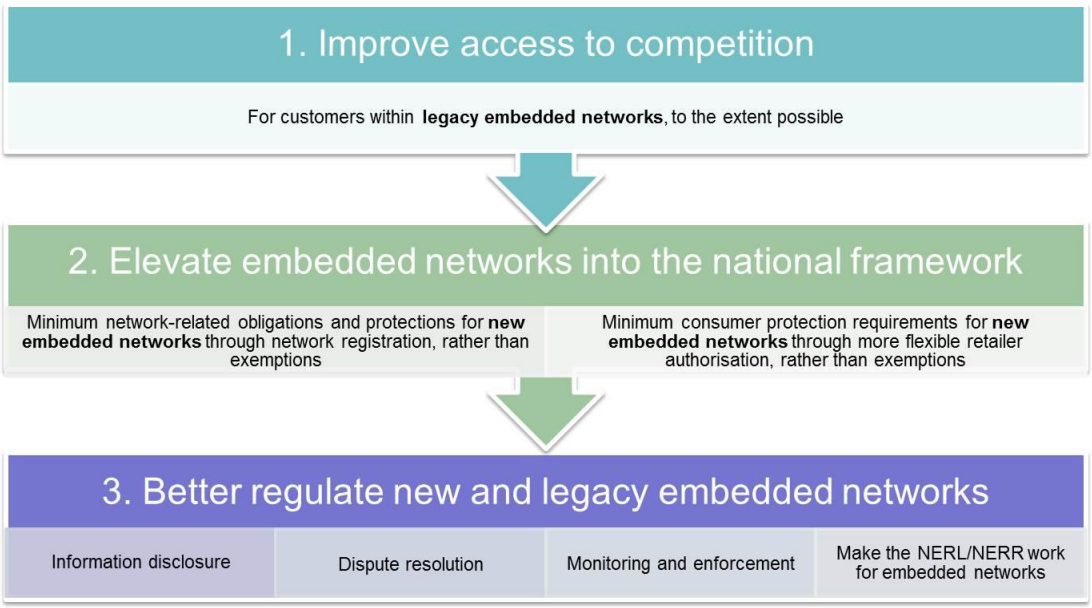
166 In this report, legacy embedded networks refers to embedded networks established under the existing regulatory framework, which are operated by exempt embedded network service providers.

(c) ***Better consumer protections for new and legacy embedded networks*** including information disclosure; access to dispute resolution; improved monitoring and enforcement; and making the NERL/NERR effective for embedded network customers supplied by an authorised retailer.

Figure 6.1 illustrates this approach below.

Separate recommendations have been made in relation to legacy and new embedded networks in the final report. This is because we are mindful of the implications of retrospectively imposing a significant number of changes on existing embedded network operators given their varying levels of resources and capacity to implement these changes.

Figure 6.1 Approach to improving the regulatory arrangements for legacy and new embedded networks



6.1.3 Improving access to retail market competition in legacy embedded networks

We consider that, where possible, we should develop options to improve access to retail competition for embedded network customers. We agree with the view from submitters[167] that improving access to retail competition would make an important difference to improve the outcomes of embedded network customers.

This report recommends reforms to improve legacy embedded network customers' access to retail competition. These measures include:

- improving the visibility of embedded networks' customers in AEMO's market systems where an ENM has been appointed

167 AEMC, Review of regulatory arrangements for embedded networks, Consultation paper submissions: AER, p.3; AGL, p.2; EnergyAustralia, p. 2; Flow, p.9; PIAC, p. 2. Red and Lumo, p.2; SACOSS, p. 6.

- standardising 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
- using 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.

However, while the Commission considers access to competition can be improved to some extent in legacy embedded networks, in practice, workable retail competition is unlikely to emerge for customers in all legacy embedded networks. For example, constraints on the type of metering that may be able to be installed in some embedded networks such as caravan parks may make it impractical for retailers to make on-market offers in these embedded networks.[168] Consumer protections for exempt customers (i.e. customers that are supplied by exempt sellers) are discussed in Section 6.1.5.

6.1.4 Elevating embedded networks into the regulatory framework

We propose that legacy embedded networks would be grandfathered under their existing exemptions with some modifications to exemption conditions and AER functions and powers. These are discussed in the next section.

The recommended reforms in this section aim to improve regulatory arrangements for new embedded networks and provide small customers access to retail market competition.

To redress the balance between innovation, consumer protection, and access to retail market competition the Commission recommends the regulation of the majority of new embedded networks should be elevated into the national regulatory and market framework under the NER and NERR.

We recommend elevating embedded networks into the national regulatory framework by:

- Regulating the services provided by embedded network service providers and on-sellers to off-market small customers under the national energy laws and rules. These services may include distribution, selling, metering and market interface functions. The providers of these services would be required to comply with obligations under the NEL, NERL, NER and NERR, with compliance being monitored and enforced by the AER
- Further integrating embedded networks into AEMO's market systems by increasing the information available to the market about embedded network customers and standardising key market procedures and transactions to facilitate access to competition for embedded network customers.

Embedded network service providers would be required to register with AEMO unless exempted by the AER in a narrow set of circumstances. Parties that wish to sell energy

168 See Section 7.5.3 for further details regarding metering constraints in caravan parks.

to embedded network customers would be required to obtain a retailer authorisation, unless exempted by the AER under a narrow set of circumstances.

We consider elevating embedded networks into the national framework will be in the long term interests of consumers consistent with energy objectives and the criteria set out in the assessment framework in chapter 2:

- Consumers will have greater access to retail market competition and an appropriate level of consumer protections
- Elevating the regulation of the majority of new embedded networks into the national framework provides clear regulatory functions to each of the market bodies in relation to embedded network participants, including appropriate monitoring and enforcement functions and powers to the AER
- A clear and transparent regulatory framework should remove confusion over whether registration/authorisation or an exemption is required, promote compliance and will also provide regulatory certainty for participants wishing to develop innovative off-market services[169]
- There will continue to be an incentive to establish an embedded network where benefits can be offered to the customers of the embedded network, but not where doing so is to avoid the costs of important regulatory protections.

The regulatory burden of these changes would be minimised by the following measures:

- Embedded network service providers would only be subject to a sub-set of the obligations under the NEL/NER and NERL/NERR that currently apply to network service providers
- Establishing sub-categories of authorised retailers with the NERL, which would provide for a different set of rights and obligations depending on the category of authorised retailer in which the person has been authorised as
- Providing the AER discretion to waive, or modify, inappropriate obligations in the NER or NERR where unforseen or exceptional circumstances arise
- The Commission agrees with stakeholders that it is important to retain an exemption framework to address situations where the costs of registration as a network service provider or authorisation as a retailer would be high compared to the benefits to consumers and the need for regulatory oversight is low. We have made recommendations on the criteria for exemptions which would, for example, continue to capture temporary supply situations, selling to related entities and large customers.

The recommended changes will also require detailed changes to the NERL and NERR, related to extending the existing tripartite distributor-retailer-customer relationship to embedded network service providers and addressing consumer protection issues

169 These off-market services may include services such as the on-selling of electricity at a discounted tariff, the sale of electricity supplied by embedded generation, energy demand management services and additional services such as water and telecommunications which are combined with the overall service offering.

relating to authorised retailers selling to embedded network customers. However, it is important to note that these changes will need to be made, even if regulatory arrangements are not elevated into the NER and NERR, to address the regulatory gaps that already exist due to some embedded network customers going on-market and the increasing growth in authorised retailers on-selling to embedded networks customers off-market.

6.1.5 Better consumer protections within new and legacy embedded networks

As we have outlined above, there are likely to be ongoing barriers to legacy embedded network customers accessing competition. There are also likely to be ongoing challenges in providing appropriate consumer protections and in monitoring and enforcing compliance with related obligations.

For exempt customers (supplied by an exempt seller) in legacy embedded networks, it will be important that the AER continues to update its network and retail exemption guidelines. Improving access to dispute resolution should be a focus, and is one which the AER and Ombudsmen are currently working on.[170] There is also a role for jurisdictional governments in improving state regulations that affect access to independent dispute resolution and access to concessions.

The ability for the AER to monitor and enforce exemption conditions also needs to be improved. This requires law changes relating to the AER's functions and enforcement options.

A number of issues currently arise for both on-market and off-market retail customers in embedded networks in relation to the growing role of authorised retailers in embedded networks. Significant reform of the NERL and NERR will be required to cover the roles of, and relationship between, exempt embedded network service providers and authorised retailers. In relation to embedded networks, consideration should be given to reforming the obligation to offer/supply, extending the price cap that applies for exempt customers to retail customers, and extending rules that apply for standard supply customers (such as de-energisation rules) to retail customers in embedded networks. Reforms to a number of other rules will also be required.

Clear information is an important enabler of an effectively competitive energy market and is important for customers when entering an embedded network, considering moving to a market retailer or considering converting their property to an embedded network. The AEMC recommends changes to require additional information to be provided prior to a customer entering an embedded network and more information on prices in embedded networks to be published.

As noted above, many of these changes would be required in any event to address current gaps in the regime even if the more fundamental reforms to the two-tiered regulatory framework proposed above were not made.

---

170 See AER, Issues paper: access to dispute resolution services for exempt customers, June 2017, viewed 24 August 2017, https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/access-to-dispute-resolution-services-for-exempt-customers-june-2017.

6.2 Expected costs to participants and market bodies

Participants and market bodies will incur a number of costs in implementing the proposed changes.

Operators of legacy embedded networks will incur some costs, where they have appointed an Embedded Network Manager to register additional information into MSATS for off-market customers in their network. However we do not consider this will be onerous or disproportionate because an ENM will have already been appointed and will already be carrying out this work for on-market customers. There will also be some minor costs for exempt network service providers and exempt sellers in meeting enhanced information obligations.

Elevating the regulation of embedded networks into the national framework will also involve a number of costs for participants and market bodies. Participants will incur costs in applying for registration and/or authorisation and registered participants must also pay participant fees to AEMO. However, we consider it reasonable that participants be required to demonstrate their capability to meet their obligations and contribute a proportionate amount towards the operational costs of the market.

Registered embedded networks and authorised retailers will also have the costs of complying with obligations under the energy laws and rules. However, we do not expect the cost of complying with the rules to be significantly more than the cost of complying with exemption conditions. The energy laws and rules would be amended to place proportionate obligations on embedded network operators.

A clear and transparent regulatory framework should remove confusion over whether registration/authorisation or an exemption is required and will also provide regulatory certainty for participants wishing to develop innovative off-market services.

The AER and AEMO will also have costs relating to assessing applications for retailer authorisations and registered embedded network service providers.

While there will be costs to participants and market bodies we consider the benefits to consumers, which are outlined in the next section will outweigh these costs.

6.3 Expected benefits to consumers

We expect consumers in embedded networks to benefit in a number of ways in relation to improved access to retail market competition and consumer protections.

Consumers in legacy embedded networks will have improved access to retail market competition. We expect there will be an increase in the number of retailers that will actively compete for embedded networks' customers which should place downward pressure on prices for embedded networks' customers. Continued work by the AER and jurisdictions and the proposed changes to the AER's functions should enhance consumer protections and monitoring and enforcement of those protections in legacy embedded networks.

However, as we outlined above, there are also likely to be ongoing challenges in legacy embedded networks in promoting competition, in providing appropriate consumer protections and in monitoring and enforcing compliance with related obligations.

The proposed approach to elevating embedded networks into the national framework will provide consumers greater access to retail market competition and equivalent consumer protections to standard supply customers for new embedded networks.

Consumers in new embedded networks should continue to benefit from greater innovation and choice in products and services. New embedded networks would still be able to offer innovative off-market services that provide price and non-price benefits to customers in competition with market authorised retailers.

These off-market services may include services such as the on-selling of electricity at a discounted tariff, the sale of electricity supplied by embedded generation, energy demand management services and additional services such as water and telecommunications which are combined with the overall service offering.

We expect that the measures recommended to open up embedded networks to increased retail competition will incentivise authorised on-selling retailers in embedded networks to pass on savings from innovation and efficiencies to customers or risk losing customers to market retailers. This should improve service quality and put downward pressure on prices for consumers in embedded networks.

Elevating embedded networks' regulation into the rules and market procedures means that if off-market embedded networks customers are dissatisfied with their off-market arrangements they will also have improved consumer protections and access to dispute resolution. Consumers in new embedded networks will have a minimum set of protections under the NERR relating to dispute resolution, life support, disconnection and explicit informed consent.

Consumers in new embedded networks will also benefit from a range of existing provisions in the NER and NERR that promote transparency and information provision. For example, elevating embedded networks into the national framework will provide consumers increased access to information on their electricity consumption allowing them to better understand and manage their usage and compare retail offers. Protections under the NER to standard supply customers relating to the confidentiality of data including metering data and NMI standing data will also be extended to consumers in new embedded networks.

6.4 Implementation

Implementation of many of the Commission's recommendations to improve access to retail market competition in legacy embedded networks, elevate embedded networks into the national framework and improve consumer protections will require a range of law and rule changes.

A report from MinterEllison, "Review of regulatory arrangements for embedded networks - implementation of recommendations in Draft Report" is published on the AEMC website to accompany this review. MinterEllison advises that the recommendations made in the draft report (which are largely unchanged in the final report) can be implemented through changes to the NEL and NER, the NERL, the NERR and the NERL Regulations, and various changes in administrative practice by regulators, principally the AER. The MinterEllison report provides further detail on

how the AEMC's proposed framework can be implemented through the national energy framework.

Chapter 2 of the accompanying MinterEllison report sets out a summary of the law, rule, guideline and procedure changes it considers would give effect to the AEMC's proposed framework.

In the detailed advice on the implementation of the framework, which we propose as the next stage of work on these reforms, the AEMC would consider the options proposed by MinterEllison. We would provide advice on specific law and rule changes and the timing and sequencing of these changes. This would be done through an open and consultative process allowing more detailed input from stakeholders. By consulting on this detailed advice it may be possible for subsequent AEMC rule change processes to be fast tracked.

6.5 Interim issues

PIAC suggested the Commission "prioritise protections for exempt embedded network consumers and not wait for other regulatory reforms to provide vital consumer protections to currently under-protected consumers".[171] SACOSS and Uniting Communities suggested the AEMC consider using the AER's current functions and powers to execute a list of interim measures as it could take some time to implement the changes in law and rules required to implement the recommendations.[172]

The Commission agrees with stakeholders that there are a number of recommendations made in this report that should be progressed as a matter of priority. These relate to improving consumer protections for exempt customers within existing embedded networks. Implementing these recommendations will also provide improved consumer protections to exempt customers unable to access retail market competition, despite any future changes to the regulatory framework to reduce the existing impediments to retailers making on-market offers to embedded network customers.

In conclusion, while the timing and sequencing of the recommended law and rule changes can be considered in the next stage of work, the AER and jurisdictions should progress a number of priority recommendations in parallel to further work being done to implement changes to the regulatory framework.

The Commission recommends the following recommendations be progressed as a matter of priority:

- improving monitoring and enforcement to the extent possible in the current framework
- improving access to ombudsman schemes
- improving awareness of and access to concessions
- improving information provision at the time of purchase or lease of a property
- updating penalty amounts for infringement notices

171 PIAC, Submission on the draft report, p. 8.

172 SACOSS and Uniting Communities, Submission on the draft report, p. 3.

- reviewing jurisdictional safety and reliability regimes.

6.6 Gas embedded networks

The regulatory framework for gas embedded networks differs from electricity embedded networks. The national retail exemption framework applies to the on-selling of gas and includes deemed exemptions for people who sell unmetered gas where gas is used for limited purposes. However, there is no national exemption framework for the distribution of gas through an embedded network. Jurisdictional arrangements apply to gas embedded network operators and the approach varies significantly between jurisdictions.

The changes we have proposed to the NERL and the NERR relating to the retailer authorisation and selling exemption frameworks and consumer protections will apply to sellers of electricity and gas. We consider the same rationale applies that gas sellers to small customers should not be exempted from holding a retailer authorisation. Appropriate consumer protections are equally important for gas customers. Having harmonised regulatory framework for the selling of gas and electricity will also minimise the complexity for dual fuel operators which we expect would lower prices for consumers.

We have not assessed each of the jurisdictions' regulatory arrangements for gas embedded network operators in detail and how they impact on retail market competition. However, we consider that there is benefit in clarifying and harmonising the regulatory framework of obligations and customer protections for embedded network operators in gas and electricity markets. The Commission recommended in the draft report that COAG consider establishing a harmonised regulatory framework for gas embedded network operators which is consistent with the regulatory framework for embedded network service providers in the national electricity market.

Several stakeholders submitted, in response to the draft report, that they supported the harmonisation of regulatory arrangements for gas embedded networks across jurisdictions, and with the regulatory arrangements for embedded networks in the national electricity market.[173] EWOSA submitted it has a preference for the regulatory framework for gas embedded networks to be established under the National Gas Law and National Gas Rules, as well as the NERL and NERR, rather than through jurisdictional legislation.[174]

Recommendation 1

The COAG Energy Council:

- advise the AEMC by July 2018 whether the embedded network service provider registration framework should apply to gas embedded networks in order that a single package of electricity and gas law and rule changes can be developed and implemented under the national gas law and rule.

173 Submission on the draft report: AER, p. 7; EWOSA, p. 4; Simply Energy, p. 2.

174 EWOSA, submission on the draft report, p. 4.

7 Access to competition in legacy embedded networks

7.1 Introduction

This chapter sets out the Commission's recommendations for further improving access to competition within legacy exempt embedded networks by simplifying and reducing the cost for all authorised retailers to access child embedded network customers, while allowing customers switching to an on-market offer to continue to receive a single, combined network and retail bill.

In summary, the Commission recommends making the process for embedded network customers switching between off-market exempt sellers and on market retailers as simple as possible. This can be achieved through two main changes:

(a) Where there is an embedded network manager (ENM) appointed, issuing child embedded network customer connections with National Metering Identifiers (NMIs), registered with AEMO through their market settlement and transfer solution (MSATS) system and discoverable by retailers, regardless of whether the customer is on or off market

(b) Requiring the embedded network service provider to charge the retailer no more than the equivalent external network charge that would have been charged by the LNSP if the customer had been directly connected to the LNSP's network.

The Commission acknowledges that many embedded network customers, including permanent residents in some caravan parks, are likely to remain off-market due to impediments such as the cost of upgrading metering i.e. these customers will continue to be supplied by exempt sellers. The Commission has made a number of recommendations in Chapter 9 relevant to these customers. These recommendations aim to improve:

- the AER's enforcement capability with respect to exempt sellers
- exempt customer access to ombudsman schemes
- exempt customer awareness, and access to, concession schemes
- information disclosure to exempt customers

7.2 Background

Under the National Electricity Law (NEL) and the National Electricity Rules (NER) a person must not engage in the activity of owning, controlling or operating a distribution system that forms part of the interconnected national electricity system unless:

- the person is registered with AEMO as a Network Service Provider, or
- the person is the subject of a derogation that exempts the person, or is otherwise exempted by the Australian Energy Regulator (AER) from the requirement to be registered.[175]

175 NEL s. 11(2) and s. 13, NER cl. 2.5.1(a) and 2.5.1(d).

As required by the NER, the AER has issued an "Electricity Network Service Provider – Registration Exemption Guideline" (network exemption guideline).[176]

The network exemption guideline was most recently updated on 1 December 2016 and incorporates changes resulting from the AEMC's 17 December 2015 Embedded Network Final Rule Determination. It requires exempt embedded network service providers to take reasonable steps to facilitate access to retail competition for child embedded network customers where retail competition is available in a jurisdiction. However, practical impediments to competition remain including:

- bespoke embedded network tariffs
- embedded network billing arrangements that require retailers to implement special processes
- lack of visibility of off-market embedded network connections
- transaction costs for the retailer in negotiating access to meters

Importantly, the AER's network exemption guideline provides that no charge is permitted for internal network services except where the parties have entered into an agreement on mutually agreed terms and both parties are large customers or large corporate entities.[177] This is helpful in facilitating a proposed regime where, for billing purposes, market retailers can effectively 'look through' the embedded network directly to the child embedded network customer.

7.3 Support for competition in embedded networks

7.3.1 Submissions on the consultation paper

Submissions on the consultation paper were supportive of improving embedded network customers' access to retail market competition.

The AER strongly supported further improving the level of competition for customers within embedded networks, describing them as inherently monopolistic:[178]

> "True competition in embedded networks is the missing element that would offer the greatest benefit to customers."

Retailers, including AGL, EnergyAustralia, Red Energy and Lumo Energy also supported further changes to improve competition. EnergyAustralia suggested "competition in the retail space between traditional retailers and emerging business models is the best way to get optimal outcomes for consumers".[179] AGL said "where possible, competitive markets should be relied upon to facilitate the advancement of customer interests".[180] Red Energy and Lumo Energy said "[g]reater competition will

176 NER, cl. 2.5.1(e).

177 AER, Electricity Network Service Provider - Registration Exemption Guideline, version 5, 1 December 2016, p. 59.

178 AER, Submission on the consultation paper, p. 3.

179 EnergyAustralia, Submission on the consultation paper, p. 2.

180 AGL, Submission on the consultation paper, p. 2.

lead to a more efficient allocation for resources delivering greater choice and more competitive offers to consumers in embedded networks".[181]

Other submissions on the consultation paper also commented on the benefits of retail competition within embedded networks:[182]

> "Flow actively promotes the customers right to select a retailer of their choice."

The Public Interest Advocacy Centre (PIAC) said:[183]

> "PIAC supports access to retail competition. In general, PIAC considers that access to retail competition is likely to lead to lower prices, something that is a good outcome for consumers."

Concerns were also raised about costs and risks of further regulation. The Shopping Centre Council suggested "(t)he cost and risk of further regulation for embedded network owners / operators needs to be properly considered".[184] Red Energy and Lumo Energy noted that "(e)xcess regulation comes at a cost for consumers".[185]

7.3.2 Submissions on the draft report

A number of submissions broadly supported the intent of the draft recommendations to improve access to retail market competition. Examples include:

- The AER submitted that it considers the introduction of competition in embedded networks constitutes the single most significant improvement to the operation of the embedded network market[186]
- Simply Energy considers competition and customer choice is the best way of ensuring optimal and efficient outcomes are provided to energy consumers[187]
- AGL agreed that embedded networks customer can not readily access competitive retail market offers and broadly agreed with the policy intent of improving access to retail market competition in embedded networks[188]
- SACOSS & Uniting Communities and EWOSA broadly supported the AEMC's intention to improve access to retail market competition[189]

A number of stakeholders, retailers and embedded network managers generally supported the principle of competition for embedded network customers in their submissions on the consultation paper. However, some of these stakeholders then

---

181 Red Energy and Lumo Energy, Submission on the consultation paper, p. 2.

182 Flow, Submission on the consultation paper, p. 9.

183 Public Interest Advocacy Centre, Submission on the consultation paper, p. 2.

184 Shopping Centre Council, Submission on the consultation paper, p. 14.

185 Red Energy and Lumo Energy, Submission on the consultation paper, p. 2.

186 AER, Submission on the draft report, p.1

187 Simply Energy, Submission on the draft report, p.2

188 AGL, Submission on the draft report, pp.1-2

189 SACOSS and Uniting Communities, Submission on the draft report, p.1 and the Energy & Water Ombudsman SA, Submission on the draft report, p.1

raised concerns in their submissions on the draft report in relation to the benefits of access to competition.

PIAC expressed concern about whether consumer engagement and a genuinely competitive market could be achieved and therefore whether competition would deliver the best outcome for consumers, particularly given the implementation costs.[190] The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW queried whether the value to embedded network customers of improving access to retail market competition outweighed the costs, citing the ACCC Retail Electricity Pricing Inquiry Preliminary Report and noting that embedded networks can facilitate co-ordination of energy sourcing and management.[191]

Retailers that provide embedded network services and existing embedded network operators were primarily concerned about the proposal to provide off-market metering installations a NMI to improve their visibility in MSATS. These submissions are discussed further in section 7.4

AEMC Final Position

The Commission agrees that competition is desirable in order to achieve better customer outcomes and to lessen the need for potentially costly and prescriptive price regulation.

The Commission also agrees with submissions that a technology neutral regime is beneficial. For example, EnergyAustralia said "[t]he current regulatory framework is not fit for purpose and will remain reactive to emerging technologies and services which will become increasingly difficult to administer and monitor".[192]

Effective competition provides a level of economic efficiency, technological neutrality and personal freedom that can never be fully replicated through regulation. Consumers' long term interests are usually best served by implementing regulatory frameworks which maximise effective competition.

7.3.3 Impediments to competition

The existing regulatory framework is intended to encourage retail competition for child embedded network customers, but there are practical complexities that impact the framework's effectiveness.

Clause 2.5.1 of the NER provides that:

> "(d) The AER may, in accordance with the guidelines issued from time to time by the AER, exempt any person or class of persons who is or are required to register as a Network Service Provider from:
>
> (1) the requirement to register as a Network Service Provider; or

190 PIAC, Submission on the draft report, pp.1-2

191 Centre for Energy and Environmental Markets, UNSW Australia and Australian Photovoltaic Institute, submission on the draft report, pp.3-4

192 EnergyAustralia, Submission on the consultation paper, p. 2.

(2) the operation of Chapter 5,

where (in the AER's opinion) an exemption is not inconsistent with the national electricity objective."

The AER has prepared the network exemption guideline in accordance with clause 2.5.1(e) of the NER. The first version was published in 2011 and the current version, which incorporates changes under the AEMC's 17 December 2015 Embedded Network Final Rule Determination, was published on 1 December 2016.

The network exemption guideline already obliges exempt embedded network service providers to facilitate access to competitive market offers:[193]

> "An exempt person must … provide ready access to retail competition where it is available in a jurisdiction.
>
> To make access to retail competition work it is essential than an exempt embedded network service provider not impede access to retail competition and take reasonable steps to facilitate access for a tenant.
>
> The AER does not permit an exempt embedded network service provider to impose any measures on a customer, either directly or indirectly, which would impede or penalise a customer seeking access to retail competition...
>
> A supply contract must not include any charge for early termination of the supply agreement or any condition which unreasonably restricts the ability of a consumer to access an alternative retail market offer or that requires the exempt embedded network service provider to be the sole supplier of any metering related service. "

However, as noted in a number of submissions on the consultation paper, competition is nonetheless constrained. The AER said:[194]

> "In embedded networks customers' access to retail competition is restricted or prohibited (depending on the jurisdiction) for a variety of reasons. … While the AEMC's embedded networks rule change will assist customers to receive supply from a retailer of their choice, this change alone will not resolve the issue of access to competition."

Red Energy and Lumo Energy said:[195]

> "Under the current regulatory framework, the current level of competition available to off-market embedded network consumers is low, as it is not easy to transition a consumer's arrangement from off-market to on-market, leading to inefficient outcomes. As such, the regulatory arrangements that apply to consumers in embedded networks need to change to make them more competitive."

The South Australian Government, Department of Premier and Cabinet said:[196]

---

193 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 15 (section 2.1.1), p. 16 and p. 44 (section 4.2.2.4).

194 AER, Submission on the consultation paper, pp. 2-3.

195 Red Energy and Lumo Energy, Submission on the consultation paper, p. 2.

"Investigations undertaken by the Energy and Technical Regulation Division [ETR] identified several barriers to obtaining a market offer of an "energy only" offer. ETR contacted several retailers seeking information for embedded network customers and experienced mixed responses to queries. Only one retailer was able to make an offer to an embedded network customer. Issues that arose during the investigation include:

- Lack of information or materials readily available to inform customers about the process to transfer;
- Conflicting information about a meter compliance, new meter installation and costs;
- Difficulty obtaining quotes with or without a NMI, poor response to questions about energy only offers or quotes without network charges; and
- Retailers discouraging EN customers from seeking an offer.

ETR has also received similar feedback from embedded network customers.

While the prevalence of these issues may subside when the 2015 Embedded Network Rule Change comes into effect in December 2017, ETR considers the current market retail contract framework is not sufficient to ensure small embedded network customers have visibility of energy retail offers."

Key issues identified in submissions were the lack of access to published embedded network tariffs and a lack of information on the split between network and energy charges, leading to an inability to transparently compare on-market and off-market offerings.

According to Energy Networks Australia:[197]

"There are two ways that embedded network customers can access retail services by authorised retailers:

1. The retailer comes to an agreement with the embedded network operator to bill the retailer for network services and the retailer then bills the customer for network and energy services
2. The customer pays two separate bills, one to the embedded network operator for network services and one to the retailer for energy services.

Either method requires that the embedded network operator must inform either the retailer or the customer of the unbundled prices. This additional complexity of providing retail services may pose a commercial barrier to retailers developing products and services for small customers."

Flow said:[198]

196 Government of South Australia, Department of Premier and Cabinet, Submission on the consultation paper, pp. 2-3.

197 Energy Networks Australia, Submission on the consultation paper, p. 5.

> "Lack of bundled tariff transparency remains a barrier to improved competition as EEN [exempt embedded network] operators are not able to clearly demonstrate the financial value and competitive advantage they add to consumers."

In AGL's view:[199]

> "Without certainty over operations sections of the regulatory framework, such as published network tariffs, Use of System charges, data requirements and billing information, the process of providing embedded network customers with retail services could be very difficult and costly."

Another key issue, discussed in chapter 5, was the visibility of embedded network customers to on-market retailers and their metering arrangements:[200]

> "The biggest barriers for customers accessing markets has been ensuring that appropriate metering infrastructure is installed and that customers have been discoverable in MSATS."

AEMC final position

The Commission considers that child embedded network customers' access to competitive offers would be improved if retailers could:

- have visibility of prices for network services
- discover information on an off-market embedded network customer and their metering installation
- use standard market systems and processes to convert off-market embedded network customers to on-market embedded network customers.

7.4 Require ENMs to register off-market meters

As discussed above, in order for customers to benefit from competition they require access to competitive market offers without the need to incur substantial search costs, and the ability to readily move from one provider to another. The Commission has concluded that requiring ENM's to register off market meters helps to facilitate these outcomes.

The Commission's position has evolved since the draft report in response to submissions and takes into account the fact that unless mechanisms are put in place new tenants may not be aware of the exempt seller's offer when they first move in. It is in the tenant's interest to be made aware of all offers open to them at least prior to the end of any cooling off period. The Commission considers that mechanisms should be put in place to achieve that outcome.

7.4.1 AEMC draft position and recommendation

The draft report recommended that Embedded Network Managers be required to:

198 Flow, Submission on the consultation paper, p. 9.

199 AGL, Submission on the consultation paper, p. 3.

200 Origin Energy, Submission on the consultation paper, p. 5.

- apply to AEMO for NMIs for off-market metering installations
- register the NMI for off-market metering installations with AEMO (i.e. through MSATs)
- maintain information in the metering register (i.e. NMI standing data through MSATS) about whether the meter complies with the current NEM requirements.

7.4.2 Stakeholder views on the draft report

Costs

Several stakeholders including the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW were concerned that the costs of Embedded Network Managers required under the current framework, are unknown[201]

AGL acknowledged that the appointment of the ENM should largely be considered a sunk cost, and as such, any additional costs for the NMI registration of off-market customer metering systems would be incidental. However, AGL still recommended an indicative quantitative assessment.[202]

Metering Identifiers

Embedded Networks Operators (including Flow[203]and OC Energy[204]) are concerned that allocating NMIs to off-market customers will make embedded network customers susceptible to unfair predatory marketing practices by tier 1, and some tier 2, energy retailers (including Customer Connection Services through real estate agents)

Flow submitted that because off-market embedded network premises currently don't have NMIs customers who move in are forced to contact the embedded network operator if they wish to sign up with a retailer and go 'on market', providing the ENO an opportunity to counter-offer and win the customer. Flow was concerned that customers could sign up with a market retailer prior to moving in and that the ENO would have no "customer touch point for the customer to receive a competitive offer before they commence their tenancy".[205] Flow point out that the ENO may not have the customer's details prior to their moving in.

Flow is concerned it will lose this "customer contact point" if customers are given NMIs because the retailer will be able to contact the ENO on behalf of the customer, and that customers will change retailers without being aware that they were moving within an embedded network.

201 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd submission on the draft report, p.1,p.14

202 AGL, Submission on the draft report, p.3

203 Flow, Submission on the draft report, p.4

204 OC Energy, Submission on the draft report, p.2

205 Flow submission on the draft report, p.8

Once the customer has moved to an on market retailer Flow considers it will be difficult to win back to the customer because the retailer may have changed the meter and the customer may face early termination charges in their contract.[206]

OC Energy said that "Retailers are likely to proceed with contracting with new customers with off-market meters without informing them that their meter is currently part of an embedded network."[207] OC Energy considers this will lead to attrition over time and ultimately embedded networks will cease to exist.[208]

Origin was also concerned that a customer may be unaware of the consequences of moving on-market saying "the potential for obtaining a less favourable product and interruption to supply due to change of meter are all issues that may arise as a result of requiring an NMI and MSATS registration for all these customers."[209]

The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW queried why NMIs needed to be allocated and standing data loaded for holiday sites, saying "we question the need for this additional task in holiday parks and residential land lease communities, particularly in mixed parks (i.e. parks that have a mixture of tourists, home owners and renters) where holiday makers out number permanent residents. If a permanent resident seeks to go on-market and this triggers the appointment of an ENM, will the ENM be required to issue NMIs to child meters on holiday sites as well as residential sites?"[210]

Concerns were also raised at the stakeholder workshop held on 4 October 2017 that the Commission's draft recommendations would require embedded network service providers to provide external parties the ability to make alterations to embedded network infrastructure.

7.4.3 AEMC analysis and final recommendation

The Commission continues to consider that retailers would be better placed to make offers to child embedded network customers if child embedded network customer metering installations are issued with NMIs, which are registered with AEMO through MSATS and discoverable by market retailers, regardless of whether the customer is on or off market. This would facilitate child embedded network customers receiving competitive retail offers and would also facilitate transferring customers from an off-market to an on-market arrangement.

As discussed in section 7.3.3, competition and the right to access a market offer is already enshrined in existing requirements in Victoria, NSW and South Australia and customer discoverability has been identified as a key enabler. The Commission is simply recommending measures that remove practical impediments to customers exercising rights that in many cases they already have.

206 Flow, Submission on the draft report, pp.4-5

207 OC Energy, Submission on the draft report, p.1

208 OC Energy, Submission on the draft report, p.4

209 Origin Energy, Submission on the draft report, p.5

210 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd submission on the draft report, p.5

Currently within existing embedded networks NMI's are only allocated to metering installations associated with the parent meter and with on-market child embedded network customers. Metering installations for off-market child embedded network customers must meet certain technical and access requirements but are not assigned a NMI.[211]

Where there is no NMI, customers are not discoverable through AEMO's MSATS system, even with the customer's consent, meaning the process of making an offer and then moving a customer on-market is more complex and more expensive than it could be, and different to the process for standard supply customers.

In order to make customers discoverable and so facilitate transfers the Commission recommends that all child embedded network customer metering installations to be assigned a NMI, regardless of whether those customers are on or off market. We recommend that this requirement apply wherever an ENM is appointed - that is, generally on sites with 30 or more child embedded network customers or on sites with 29 or less child embedded network customers where one or more of those customers is on-market.[212]

The Commission does not consider that an additional requirement to assign a NMI to each off-market metering installation and to enter its NMI standing data into the MSATS system is onerous or disproportionate where an ENM has been appointed. We think that an ENM will have the capability to register and manage NMIs, but that requiring small embedded network service providers without an ENM to register and manage NMIs may be an unreasonable impost.

The Commission acknowledges concerns that move-in customers may enter into market retail contracts prior to moving in and may not be aware that their tenancy is part of an embedded network and that more favourable off-market offers may be available. The Commission notes that there is already a cooling off period for market retail contracts.[213] Options for addressing the residual concerns, such as where a cooling off period expires prior to a tenant moving in to a premises served through an embedded network, should be considered further in the next phase of this work.

The Commission does not accept that the ability for retailers to market to prospective customers is anti-competitive. The Commission considers that the ability for retailers to market their offers provides consumer choice and facilitates switching thus promoting competition.

The Commission also notes the marketing protections provided to small customers by division 10 of the NERR.

The Commission acknowledges the issues raised by the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW regarding registering NMIs and loading standing data for holiday sites. The Commission believes this

211 Technical and access requirements for meters are also set out in the AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, pp.43-44 (section 4.2.2.1) and p.51 (section 4.4.4)

212 There are some exceptions. See AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, section 4.4 for details

213 NERR. cl.47

should be further explored in the next phase. Possible options include allowing the AER to grant a specific exemption to registering short stay meters or adding a field to the NMI standing data for short stay meters to make clear that these sites are temporary accommodation only.

As noted above, some stakeholders have raised concerns that embedded network service providers would be required to provide external parties access, and the ability to make alterations, to embedded network infrastructure. To clarify, the Commission's recommendations to facilitate access to retail market competition do not require embedded network service providers to permit other parties to make alterations to embedded network infrastructure. An exception to this is where a retailer wishes to install a new meter, which is currently permitted under the AER network exemption guidelines.[214]

Section 3.2 of the accompanying MinterEllison report provides advice on implementing the AEMC's recommendation to provide NMIs to off-market metering installations.

Recommendation 2

That Embedded Network Managers be required to:

- **apply to AEMO for NMIs for off-market metering installations**
- **register the NMI for off-market metering installations with AEMO (i.e. through MSATS)**
- **maintain information in the metering register (i.e. NMI standing data through MSATS) about whether the meter complies with the current NEM requirements.**

In legacy embedded networks, this is proposed to only apply where the AER has required an Embedded Network Manager be appointed by the exempt network service provider.

7.5 Access to metering

Retailers selling to on-market child embedded network customers must have access to child embedded customer metering which is both NEM compliant and compatible with the parent meter for the purpose of subtractive metering.

The Commission proposes maintaining the regime allowed for in the current arrangements set out in the AER's network exemption guideline.

7.5.1 Draft Recommendations

The draft report recommended no change to the current arrangements set out in the AER's network exemption guideline, which provides for the market retailer to either purchase or lease the existing meter from the owner of the meter, or to replace the meter with a meter of their own choosing.

214 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016 (Section 4.2.2.3).

7.5.2 Stakeholder views on the draft report

The CCTI & THIA expressed concerns about the costs involved in changing a typical compact accumulation meter to a much larger interval meter where this is required.[215]

Concerns were also expressed about a possible need to install a new meter, and the associated costs, if customers want to move back onto off-market offers.[216]

7.5.3 AEMC analysis and final recommendation

Under the competitive framework for metering, which will come into effect on 1 December 2017, retailers will become responsible for appointing a Metering Coordinator at their retail customers' connection points. The Metering Coordinator will engage a Metering Provider to carry out the installation and maintenance of the metering installation, and a Metering Data Provider to provide metering data services. The same party may become registered and accredited to perform all three roles.

The Commission expects that retailers will have agreements in place with each of the metering coordinators in the market such that when a retailer wins a new customer the retailer's metering coordinator will obtain access to the existing meter at a reasonable cost and will not need to replace the meter unless it is efficient to do so.

However retailers needing access to child meters for customers moving from off-market to on-market supply in exempt embedded networks are currently likely to face much higher costs, even where the existing metering installations are NEM compliant. This is because there are a large number (currently over 3,500 registrations on the AER's public register of network exemptions) of exempt networks in the NEM. Due to their large numbers and relatively small size, retailers are unlikely to have pre-existing metering agreements in place with each existing exempt embedded network to cover retailer changeovers.

Section 4.2.2.3 of the AER's network exemption guideline provides that:

> "Where a market retailer accesses an existing embedded network child meter the market retailer or the customer (as the case may be) may:
>
> (a) purchase or lease the existing meter from the owner of the meter; or
>
> (b) at their own cost, replace the meter with a meter of their own choosing."

The same section of the network exemption guideline also requires exempt embedded network service providers to provide access on reasonable terms to all necessary facilities to allow the metering of a customer obtaining supply from a market retailer.

In practice we expect that the cost to the retailer of negotiating a bespoke agreement to purchase an off-market customer's meter may well be greater than cost of replacing the meter.

---

215 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Supplementary submission, 19 October 2017

216 OC Energy, Submission on the draft report, p.4

The AEMC's draft report said that "The Commission does not recommend any measures to further prescribe or standardise retailer access to existing meters. However, we acknowledge the higher metering changeover costs when an off-market customer becomes an on-market customer does present a barrier to competition."

The Commission has further considered its position on this point. The Commission acknowledges the relatively high cost of changing meters in some cases. In particular, some locations such as caravan parks use very compact accumulation meters which at this stage could not be replaced in situ with larger time of use meters. The example provided to us by the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd[217] was a compact pattern approved 50 amp meter that is no larger than a small (20 Amp) circuit breaker, for mounting within a four outlet caravan "powerhead". The costs to replace this meter with a much larger interval or smart meter could be substantial due to the additional space requirements.

The Commission has however determined that its original position is the correct one – that is, that the competitive framework for metering will apply to on market child embedded network customers. The Commission accepts that there will potentially be a significant one off cost for installing a larger meter when a child embedded network customers first goes on market, but this appears unavoidable and is in any case consistent with current arrangements.[218]

The Commission also notes that while compact interval and smart meters currently do not meet the NEM metrology requirements, including requirements for displays and pattern testing, it is possible that NEM compliant compact interval meters will become available in the future. This could significantly reduce meter changeover costs by facilitating direct replacements within the existing meter housing.

Recommendation 3

That the competitive framework for metering should apply to on market child embedded network customers in legacy and new embedded networks.

7.6 Access to standard network tariffs

Lack of network tariff transparency was identified by a number of stakeholders as an impediment to embedded network customers receiving market retail offers. This section provides recommendations to address this issue.

7.6.1 Draft Recommendation

The draft report recommended allowing the retailer of an on-market embedded network customer to pay the exempt embedded network service provider a network tariff that is equal to the standard published LNSP network tariff that would otherwise apply if there was no intermediate embedded network.

217 The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW Ltd, Supplementary submission, 19 October 2017

218 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 51 (section 4.4.4)

7.6.2 Stakeholder views on the draft report

Stakeholder comments were largely in two areas - recovery of embedded network costs and billing processes.

Recovery of network costs

PIAC recommended that the AER be given discretion to allow registered ENSPs to recover network costs through energy bills where there is a demonstrable consumer benefit[219]

Billing processes

PIAC submitted that retailers would still have to change their systems to pay network tariffs to considerably more NSPs than the limited number of LSNPs they currently deal with. Given that high transaction costs mean retailers are often reluctant to offer market contracts to small groups of customers, PIAC considers it unlikely that they would choose to make the system changes necessary to offer retail competition in embedded networks, particularly small ones[220]

Living utilities were concerned about the potential for double billing[221] and held the view that small customers will always prefer to receive one electricity bill.[222]

ERM noted that if energy bills were bundled then it would be necessary to extend market systems and procedures to facilitate invoicing from ENSPs, consistent with current DNSP processes.[223]

7.6.3 AEMC final position

The Commission recommends that the switching process be simplified by requiring that the embedded network service provider charge the retailer no more than the equivalent external network charge that would have been charged by the LNSP if the customer had been directly connected to the LNSP's network.

Under this arrangement, retailers could offer the same retail products to child embedded network customers as they offer to standard supply customers. The exempt embedded network service provider (or their agent) would issue an invoice to the on-market customer's retailer. The invoiced amount would be the same amount that the customer would have paid had they been directly connected to the LNSP's network. The on-market customer would then be issued with a bundled network and energy bill by their retailer in the usual manner.

As set out in chapter 5, stakeholders considered the lack of transparent network charges as a significant impediment to competition. This recommendation directly addresses that concern. Retailers will always be able to determine the maximum

219 PIAC, Submission on the draft report, p.5

220 PIAC, Submission on the draft report, p.3

221 Living utilities, Submission on the draft report, pp.2-3

222 Living utilities, Submission on the draft report, p.5

223 ERM Power, Submission on the draft report, p.2

applicable embedded network tariff. The recommendation also enables the customer to receive a single bill, maintaining convenience for the customer and also providing consistency with the general arrangement in the national electricity market, where the marketing a billing functions and the customer credit risks rest with the retailer.

The proposed embedded network tariff is analogous to existing shadow pricing options.

Under the network exemption guideline, small embedded network customers are charged under two arrangements – charge group A and charge group B.

Charge group A is where there is a bundled energy and external network tariff. It applies in the vast majority of situations where energy is sold to customers within an embedded network. [224]

For charge group A the network exemption guideline provides that:[225]

> "If the external network charge is clearly attributable to a specific customer, it may be passed through at cost to that customer. Alternatively, if the charge cannot be readily attributed to a particular customer, the network charge for each customer may be based on a charge no greater than the published regulated charge which the DNSP would have charged that customer, had the customer been served directly by the distributor.
>
> In this guideline we refer to this arrangement as 'shadow pricing' of the network charge. Note that the private network must not charge fees for services which would not be charged by the distributor to a customer in the same circumstances."

Charge group B applies where there is no charge for the network, or the embedded network service provider is billed for network services by a distributor and is passing that cost on to customers in proportion to their metered energy use or, the pass-through of costs incurred to meet customer requirements.

For charge group B the network exemption guideline provides:

> "Network only charge. The shadow pricing approach as described in condition 4.6.1.1 applies to an embedded network where customers are receiving an energy only offer from a market retailer and there is no exempt selling occurring. No charge is allowed for the private network assets. Alternatively, externally imposed charges may be applied pro–rata to customers as per condition 4.6.2."

Recommendation 4

That the embedded network service provider be required to charge the retailer no more than the equivalent external network charge that would have been charged by the LNSP if the customer had been directly connected to the

224 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 55 (table 11)

225 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, p. 56 (clause 4.6.1.1)

LNSP's network.

Recovery of network costs

Under the AER's network exemption guideline, embedded network costs are not allowed to be recovered through bills, so embedded network service providers do not rely on embedded network tariffs to support the costs of embedded network infrastructure.

Clause 4.6.3 of the network exemption guideline states:

> "We do not encourage separate network charges for private networks. Few, if any, situations currently exist where such charges are warranted. The formal determination of network charges by the AER is a complex and involved process, the costs of which will usually be disproportionate to the scale of a private network.
>
> Where an embedded network exists within a commercial building, shopping centre, airport, residential apartment building, retirement village or the like, the AER considers the network development costs to have been met in the initial establishment of the facility. Such costs are capital in nature and are normally recoverable through lease payments, fit–out charges or the like. A charge for network services is not appropriate as it may result in the customer being charged twice for the same facility.
>
> Accordingly, no charge is permitted for internal network services except where the parties have entered into an agreement on mutually agreed terms and both parties are:
>
> - large customers; or
> - large corporate entities."

The Commission considers that changing current arrangements as recommended by some stakeholders to allow exempt ENSPs to recover network costs through energy bills raises a number of issues which would need to be considered by the AER. As noted in the AER's network guideline, these costs are currently funded from other sources.[226] Charging internal network charges to customers through their electricity bills raises questions as to whether these charges should be economically regulated and what type of oversight the AER would require.

Billing processes

The proposed network billing arrangement for on-market customers within embedded networks mirrors the existing process for standard supply customers. In the case of embedded networks the retailer will pay the ENSP, while in the case of standard supply customers the retailer pays the LNSP.

226 AER electricity network service provider - registration exemption guideline version 5, 1 December 2016, section 4.6.3

Metrology procedures already need to allow for netting off child meter consumption from parent meter consumption.[227]

The Commission notes the potential billing process difficulties and costs raised in a number of submissions. The Commission believes that these difficulties and costs are unlikely to be material enough to prevent customers accessing competition. The process may require embedded network service providers to invoice on-market retailers, who then pay the invoice. B2B processes may also be implemented, further reducing costs.

As with standard supply customers, tariffs retailers charge their on-market embedded network customers will be inclusive of network charges, so there should be no additional costs directly associated with customer billing.

Further, the fact that the ENSP will always bill the on-market retailer means that the risk of double billing customers for network charges falls away.

Chapter 3 of the accompanying MinterEllison advice sets out issues and regulatory changes associated with implementing the Commission's recommendations for legacy embedded networks.

7.6.4 Embedded Generation

Generators can also be directly connected to embedded networks. We do not propose changing the arrangements applying to them.

In their submission on the draft report Flow said that:[228]

> "The draft report fails to recognise that any on-market retailers will also become involved in financial transactions that are not legitimate. For example, an on-market NMI will record electricity consumption that will be transacted via the electricity spot market, however, in the case of embedded generation, electricity consumption recorded by the on-market meter will likely have been supplied, in whole or in part, by the local embedded generation asset."

The Commission acknowledges that for energy purchases financial flows may not exactly match physical flows. For the purpose of energy settlements the energy supplied to an on-market embedded network customer will appear to be purchased by their on market retailer and supplied from the LNSP's network, even if the on market embedded network customer's load is physically supplied by an embedded network generator. Conversely, energy generated by an embedded network generator that is not supplying off market embedded network customers will appear, for energy settlement purposes, to be exported.

Avoiding this would be necessarily complex and the costs of doing so would likely outweigh the benefits.

---

227 AER, Electricity network service provider - registration exemption guideline, version 5, 1 December 2016, sections 3 and 5.4 and AEMO embedded network guideline, version 1.0

228 Flow, Submission on the draft report, p. 4.

The Commission considers that where embedded generation provides significant cost advantages then this should enable an exempt seller to make the best and most compelling retail offer, which should enable customer retention. The Commission does not consider that customers' interests are best served by compelling on market retailers to purchase energy from an embedded generator, either by contract or market settlement.

8 Elevating embedded networks into the national framework

8.1 Introduction

This chapter outlines the Commission's recommendations to elevate the regulatory framework for the majority of new embedded networks into the national regulatory framework and market systems.

As set out in chapter 5, there are a range of regulatory, consumer protection and competition issues that arise as a consequence of embedded networks being regulated under an exemption framework. The Commission considers access to competition can be improved and gaps in consumer protections can be closed to some extent in legacy embedded networks as set out in Chapter 7 and Chapter 9 respectively. However, the Commission expects the proposed regulatory framework for new embedded networks set out in this Chapter will more effectively address these issues in new embedded networks going forward.

To redress the balance between innovation, consumer protection, and access to retail market competition the Commission recommends that the regulation of embedded network services to the majority of new embedded network customers should be elevated into the national regulatory and market framework under the NER and NERR.

This would be achieved by:

- Regulating the services provided by embedded network service providers and on-sellers of electricity to off-market small customers[229] under the NEL, NERL, NER and NERR. These services may include distribution, selling, metering and market interface functions. The providers of these services would be required to comply with obligations under the NER and NERR, with compliance being monitored and enforced by the AER.
- Further integrating embedded networks into AEMO's market systems by increasing the information available to the market about embedded network customers and standardising key market procedures and transactions to facilitate access to competition for embedded network customers.

The Commission considers that exemptions remain important in reducing regulatory burden where the benefits of being regulated under the national framework and having access to retail market competition would be low such as in metered premises that provide temporary accommodation such as holiday flats and caravan parks. Section 8.7 and section 8.9 set out the Commission's recommendations on the eligibility criteria and factors for exemptions in detail.

However, under the proposed framework, the vast majority of embedded network service providers and on-sellers that provide services to new embedded networks will be regulated under the national framework, with exemptions being the exception. This

229 s.5(2) of the NERL defines a 'small customer' as a customer who is a residential customer; or who is a business customer who consumes energy at business premises below the upper consumption threshold.

contrasts with existing embedded networks where existing embedded network service providers and the majority of on-sellers are regulated under the exemption framework.

This Chapter sets out the proposed regulatory framework for new embedded networks including:

- the requirement for registration and authorisation
- roles and responsibilities within new embedded networks
- an assessment of the proposed regulatory arrangements
- sector specific issues relating to shopping centres, caravan parks, manufactured homes and residential parks and community energy projects
- the embedded network service provider registration and exemption framework
- the retailer authorisation and exemption framework.

8.2 Requirement for registration and authorisation

The Commission considers requiring registration of embedded network service providers and authorisation of on-selling retailers to be a key element in elevating the regulation of embedded networks into the national framework.

This section sets out:

- a brief summary of current regulatory arrangements for embedded networks
- the Commission's draft recommendations relating to registration and authorisation
- stakeholder views on elevating embedded networks into the national framework
- the Commission's analysis and final recommendations to:
  - require embedded network service providers to register with AEMO
  - require on-sellers to gain retailer authorisation.

8.2.1 Current arrangements

Under the NEL and NER, a person who owns, operates or controls a distribution system must either be:[230]

- registered as a network service provider, or
- exempted by the AER from the requirement to register as an NSP in accordance with its network exemption guideline.

All embedded network operators currently rely on an AER exemption from the requirement to register as a network service provider.

Similarly, under the NERL, if a party wishes to sell energy to a consumer, it must hold a retailer authorisation from the AER, or be exempted by the AER from the requirement to hold a retailer authorisation.

230 s.11(2) of the NEL and clause 2.5.1(d) of the NER.

The current exemption framework administered by the AER sits outside the national regulatory framework in the NER and NERR.

For customers this means the sale and supply of electricity to customers is regulated under a 'two-tiered' framework, with:[231]

- standard supply customers being supplied by registered distribution network service providers and authorised retailers who are regulated under the NER and NERR
- the majority of embedded network customers being supplied by exempt network service providers and exempt sellers who are regulated under AER exemptions.

8.2.2 AEMC draft recommendation to require registration and authorisation

The Commission recommended elevating the regulation of embedded network services to small customers by:

- requiring the registration of embedded network service providers with AEMO unless exempted by the AER according to a narrow set of circumstances
- requiring any party who sells energy to a consumer in an embedded network, to hold a retailer authorisation from the AER or be exempted by the AER from holding a retailer authorisation according to a narrow set of circumstances.

8.2.3 Stakeholder views on draft report

As set out in Section 5.1.3 a broad group of stakeholders agreed that the existing two tier framework is no longer fit for purpose. Most of these stakeholders agreed in principle with the draft recommendation to elevate the regulation of new embedded networks that supply small customers into the national regulatory framework by requiring embedded network service providers to register with AEMO and energy on-sellers hold a retail authorisation and to limit exemptions to a narrow set of circumstances. [232]Some stakeholders such as the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW gave their support subject to the development of an appropriate sub-set of network requirements and a more flexible retailer authorisation framework.[233]

The Energy and Water Ombudsman of South Australia, the Energy and Water Ombudsman of New South Wales and the Energy and Water Ombudsman of Victoria supported the AEMC's proposal for significant reform and elevating the majority of embedded networks into the national regulatory framework in order to provide embedded network customers with better access to retail competition and customer protections, including the free, fair and independent dispute resolution services of an

231 s.11(2) of the NEL and clause 2.5.1(d) of the NER.

232 Submissions on the draft report: Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW (CCTI & MHIA of NSW), p. 9; Energy Australia, p. 9; Energy Networks Australia, p. 1; Energy Queensland, p. 4; EWOSA, p. 1; Origin, p. 2; SACOSS, pp. 1-2; Simply Energy, p. 1.

233 CCTI & MHIA of NSW, submission on the draft report, p. 9.

energy Ombudsman.[234] EWON stated it "believes that the benefits to consumers of elevating embedded networks such as caravan parks with a small number of permanent residents into the national framework should outweigh the costs associated with this process".[235]

Origin also accepted the Commission's analysis that "the current two-tiered regulatory framework can result in equivalent customers and businesses having different protections and legal obligations without appropriate circumstances to justify that state of affairs".[236]

Some businesses currently operating embedded networks considered this recommendation would increase competitive neutrality, regulatory certainty, proportionality and transparency for businesses.[237] EnergyAustralia, which itself has established an embedded network business, submitted that:[238]

> "We see a need for greater certainty, proportionality and transparency. The AER currently has considerable discretion to revisit the exempt seller and exempt network guidelines, varying or adding new obligations and introducing new categories. In recent years, the AER has introduced or consulted on new categories of exempt sellers (e.g. alternative and innovative energy sellers). This ongoing discretion about the form of regulation that applies to different business models creates an environment of uncertainty, undermining investment in or the development of new business models."

The key concern raised by stakeholders with respect to the proposed registration and authorisation framework was the increased cost related to compliance burden and that these costs were as yet unknown.[239] Stakeholders argued it would be important to design obligations and apply the national framework in a way that was proportionate and didn't act as a barrier to new entrants and make the provision of innovative products and services uneconomic.[240]

Stakeholders also raised concerns that these costs would be passed onto consumers.[241]

The Centre for Environmental Markets, UNSW and the Australian Photovoltaic Institute were concerned that the proposals may adversely affect small operators and reduce competition by removing them from the market.[242] Flow shared this concern submitting that:[243]

---

234 Submissions on the draft report: EWON, p. 6; EWOSA, p. 1; EWOV, p. 1.

235 EWON, submission on the draft report, p. 6.

236 Origin, submission on the draft report, pp. 1-2.

237 Submissions on the draft report: EnergyAustralia, p. 2; Origin, pp. 1-2.

238 EnergyAustralia, submission on the draft report, p. 2.

239 Submissions on the draft report: AGL, p. 4; CCTI & MHIA of NSW, p. 1; SSC, p.1.

240 Submissions on the draft report: AGL, p. 4; CEEM, p. 3.

241 Submissions on the draft report: AER, p. 7; Flow, p. 3; SACOSS, p. 10.

242 CEEM, submission on the draft report; p. 4.

243 Flow, submission on the draft report, p. 3.

> "While Flow believes some of the current regulatory framework is not fit for purpose and needs amending to improve customer protections and competition, the AEMC's proposal to close exemption schemes entirely will create significant perverse outcomes for both customers and embedded network operators – including next generation local providers essential to more affordable and resilient energy services. The current Draft Report will likely result in reduced customer choice and will inevitably increase costs to the end user - the opposite outcome sought by the AEMC."

Several stakeholders disagreed, to differing extents, that the regulation of embedded networks that supply small customers should be addressed through restricting exemptions and requiring the registration of embedded network service providers and authorisation of on-sellers.[244]These stakeholders, including the Shopping Centre Council and CEEM considered that the issues identified in the draft report could be addressed through amendments to the exemption framework. A number of stakeholders also considered the exemption framework should retain a category for "community energy projects".[245]

8.2.4 AEMC analysis and final recommendation

The regulatory framework should promote new and innovative services. However, encouraging new and innovative services should not occur at the expense of an appropriate set of enforceable consumer protections and access to retail market competition. The Commission has found some embedded networks may provide benefits to consumers by way of discounted prices and non-price benefits such as multi-service offerings and sustainability rated housing.[246] However, as set out in Chapter 5 there are also risks for embedded network customers.

The Commission considers that energy is an essential service. As suppliers of an essential service, the Commission is of the view that the embedded network service providers and on-sellers that serve small customers should meet a set of minimum standards and provide a minimum set of enforceable consumer protections under the NER and NERR.

The Commission is of the view that small customers in embedded networks should also be able to expect that compliance with obligations under the law would be monitored and enforced just as if they were a similar customer in a multi-tenanted premises under a standard supply arrangement. Consumer protections including monitoring and enforcement of those protections are not costless but are necessary in respect of the provision of an essential service. Similarly, there are costs involved in establishing market rules and systems and complying with these. However, access to competition is an important form of consumer protection.

As suppliers of an essential service, the Commission is of the view that the embedded network service providers and on-sellers that serve small customers should:

244 Submissions on the draft report: CEEM, p. 4; SSC, p.1.

245 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; PIAC, p. 7;

246 AEMC, 2017 AEMC Retail Energy Competition Review, Final, 25 July 2017, pp. 154-155.

- meet market entry tests for technical and financial capability
- meet a set of fit for purpose minimum standards and consumer protections
- be subject to a similar compliance and enforcement regime as authorised retailers
- facilitate access to the retail market.

The Commission considers the most effective way of implementing these measures is through elevating the regulation of embedded networks into the national framework. The Commission recommends requiring embedded network service providers that supply small customers to register with AEMO and on-sellers to hold a retailer authorisation except in a narrow set of circumstances.[247]

Figure 8.1 illustrates the proposed regulatory framework.

Chapter 4 of the MinterEllison report provides an assessment of options for elevating embedded networks into the national framework.

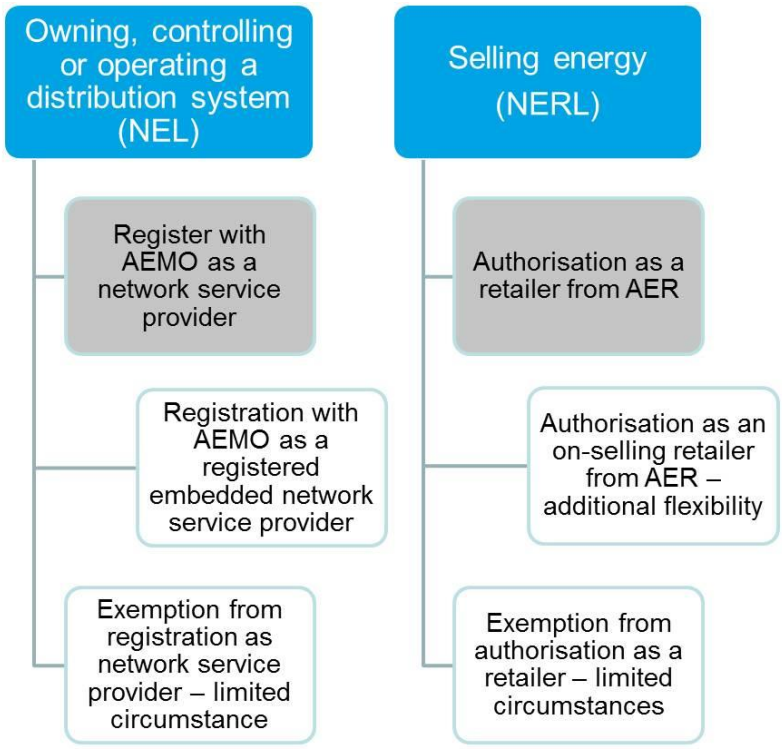
Recommendation 5

The for new embedded networks:

- **the registration of embedded network service providers with AEMO should be required unless exempted by the AER according to a narrow set of circumstances**
- **any party who sells energy to a consumer in an embedded network should be required to hold a retailer authorisation from the AER or be exempted by the AER from holding a retailer authorisation according to a narrow set of circumstances.**

247 The specific criteria for exemptions are discussed in detail in Section 8.7.5 and Section 8.9.5.

Figure 8.1 Proposed two-tier framework



8.3 Allocation of roles and responsibilities

Elevating embedded networks into the national framework requires that particular responsibilities relating to the operation of the embedded network, on-selling electricity, market interface functions and metering services be allocated to roles in the national energy laws and/or rules. Third parties may provide services to these regulated entities. However, it will be the entity that is registered, authorised or accredited under the national framework which will be accountable for meeting the relevant obligations under the NER and NERR.

This section sets out:

- the Commission's draft recommendations to extend the roles of the embedded network manager, metering coordinator, metering provider and metering data provider to include obligations in relation to off-market child connection points
- stakeholder views on the draft report
- the Commission's analysis and final recommendations.

8.3.1 AEMC draft recommendation

In addition to creating an authorised on-selling role and registered embedded network role, the Commission recommended in the draft report the roles of the Embedded Network Manager, Metering Coordinator, Metering Provider and Metering Data Provider to include obligations in relation to off-market child connection points.

The Commission recommended implementing this by:

- The operation of the embedded network including cooperating with the LNSP and meeting many of the distributor obligations under the NERR be undertaken by an embedded network service provider registered with AEMO. The embedded network service provider would also be responsible for recovering the external network charges from the authorised retailers of on-market customers in accordance with the NER and AEMO procedures
- The existing role of embedded network manager (ENM) would provide market interface functions such as assigning NMIs to both on-market and off-market embedded networks customers
- On-selling of electricity within embedded networks be undertaken by authorised retailers, who would also be responsible for appointing a Metering Coordinator for their off-market customers

8.3.2 Stakeholder views on the draft report

Energy Australia considered the Commission's recommendation to 'elevate' the regulation of embedded network services, including metering, to small customers will inevitably add to compliance costs but is a reasonable and pragmatic way to overcome the problems inherent in the current framework.[248] On the other hand, PIAC submitted that the cost of enabling access for retail contestability including metering and metrology, may outweigh the benefits of having an embedded network.[249]

The key concerns raised by existing embedded network operators related to the type of data that would be required to be registered for each off-market connection point and meter churn. Some embedded network operators, including authorised retailers such as Origin and EnergyAustralia, which have embedded network businesses, were particularly concerned about the impacts of registering NMIs for off-market metering installations.[250] OC Energy was concerned that meter churn would present a barrier to embedded networks winning back customers from conventional retailers.[251] These concerns are outlined and discussed in detail in Chapter 7.

However, the AER argued all embedded network customer meter data should be recorded in MSATS (regardless of whether customers are on- or off-market) to simplify the process for embedded network customers moving from off-market to on-market contracts with other retailers.[252]

In relation to roles and responsibilities, Origin was concerned, given the time and effort it has invested applying for accreditation as an Embedded Network Manager, that appointing a Metering Coordinator to off-market meters in embedded networks may make the role of the Embedded Network Manager obsolete.[253]

248 EnergyAustralia, submission on the draft report, p. 3.

249 PIAC, submission on the draft report, p. 2.

250 Submission on the draft report: EnergyAustralia, p. 3; Flow, p. 4; OC Energy, p. 1; Origin, p.5.

251 OC Energy, submission on the draft report, p. 4.

252 AER, submission on the draft report, p. 1.

253 Origin, submission on the draft report, p. 6.

8.3.3 AEMC analysis and final recommendations

Extending Metering Coordinator, Metering Provider and Metering Data Provider responsibilities to new embedded networks

The Commission remains of the view that Metering Coordinator, Metering Provider and Metering Data Provider responsibilities should be extended to new embedded networks. The Commission considers that it should be the authorised on-selling retailer's responsibility to appoint the Metering Coordinator.

Removing metering services from the embedded network service provider's responsibilities and requiring competitive Metering Coordinators, Metering Providers and Metering Data Providers be appointed for off-market embedded network connections is an important measure for enhancing compliance, consumer protections and access to retail market competition.

This measure will address the barriers in accessing customers being encountered by retailers in relation to metering in a number of ways.

Reallocating responsibility for metering from the embedded network service provider to the metering coordinator reduces the number of potential counter parties with whom a retailer would be required to negotiate to supply electricity at a child connection point (from thousands of different embedded network service providers to only the entities that are registered metering coordinators). Retailers are likely to have existing contractual arrangements and commercial relationships with each Metering Coordinator.

The Commission considers that the appointment of a Metering Coordinator at off-market child connection points would also facilitate customers to churn back to an off-market arrangement with an on-selling authorised retailer which would presumably have existing contractual and commercial arrangements with the Metering Coordinator to manage retailer churn given it appointed the incumbent Metering Coordinator at the off-market connection point.

Metering services will be provided in accordance with Chapter 7 of the NER and relevant NMI standing data will be maintained for new embedded network connection points. This will make customers discoverable in MSATS, making it easier for retailers to provide offers to embedded network customers, and provide market retailers confidence that metering is NEM compliant.

In response to PIAC's concerns relating to the cost of metering and metrology, the Commission is of the view that compliance with metering standards and market systems should be factored into a commercial investment decision to establish an embedded network. The Commission also notes that AER network exemption guideline currently requires exemption embedded network to comply with this the National Measurements Act, 1962 and schedule 7.2 of the NER under the general requirement 4.1 at condition 1.

Chapter 8 of MinterEllison's report provides an overview of some of the considerations for implementation of the draft recommendation to extend Metering Coordinator, Metering Provider and Metering Data Provider responsibilities to new embedded networks and amendments to the regulatory framework.

Promoting access to retail market competition by improving discoverability of customers and standardising network tariffs and billing arrangements

Elevating embedded networks into market systems by increasing the information available to the market about embedded network customers and standardising key market procedures and transactions is expected to facilitate access to retail market competition for embedded network customers.

As set out in chapter 7, the Commission recommends that:

- Embedded network managers be required to apply to AEMO for NMIs for off-market embedded network customers and maintain NMI standing data for off-market customers
- embedded network service providers be required to charge the retailer no more than the equivalent external network charge that would have been charged by the LNSP if the customer had been directly connected to the LNSP's network.

In legacy embedded networks, the recommended measures would only apply to embedded networks where an ENM is already appointed. When the *Embedded networks rule* commences on 1 December 2017, ENMs are only required to be appointed to embedded networks with 30 or more customers or where a customer in the embedded network seeks to move on-market and certain trigger events are satisfied.

With respect to new embedded networks we consider that embedded network service providers should be required to appoint an ENM for all their embedded network connection points.

Some issues for further consideration include:

- the type of NMI standing data that should be registered in MSATS for off-market meters
- how metering data will be provided to interested parties for off-market connection points outside AEMO's 'metering database' used for market settlements

These are key measures in enhancing the development of retail market competition for embedded network customers. In light of these benefits, the Commission does not think the requirement to appoint an ENM in new embedded networks and requiring a minimum level of information to be provided in market systems is onerous or disproportionate. We understand AEMO's systems will be able to accommodate these requirements without costly changes and market participants will also have made many of the required changes to their systems under the power of choice reforms.

Further, leading up to the implementation of any recommendations made in this review we expect that the market for ENMs will mature and develop such that competitively priced services will be available if a registered embedded network service provider does not wish to become accredited an act as the ENM themselves.

Recommendation 6

Metering Coordinator, Metering Provider and Metering Data Provider

responsibilities should be extended to new embedded networks.

Recommendation 7

An Embedded Network Manger be appointed for all new embedded networks.

8.4 Assessment of the proposed framework

The Commission has undertaken an assessment of the proposed regulatory arrangements for embedded networks.

8.4.1 Appropriate consumer protections

Elevating the regulation of embedded networks out of the exemption framework into the national framework and market would mean most new small customers would be provided protections under the national regulatory framework and have access to retail market competition whether or not they are an embedded network customer or a standard supply customer.

Consumers in new embedded networks will have a minimum set of energy specific protections under the NERR including those relating to dispute resolution, life support, disconnection and explicit informed consent.

Consumers in new embedded networks will also benefit from having the same protections under the NER to standard supply customers relating to:

- confidentiality of data including metering data and NMI standing data
- what parties can access services from their meters such as remote disconnection.

8.4.2 Clear, predictable and transparent framework

As we set out in the assessment framework, a clear and transparent regulatory framework creates confidence in the role of embedded networks in the market. Consumers, market participants and regulators also require information to make effective decisions. This should also encourage efficient investment and innovation in providing embedded network services and build consumer confidence to enter into embedded network arrangements.

Regulatory functions and powers

Elevating the regulation of the majority of new embedded networks[254] into the national framework provides clear regulatory functions to each of the market bodies in relation to embedded network participants including registered embedded network service providers, authorised retailers, Metering Coordinators and other accredited service providers:

254 Legacy embedded networks would be grand fathered under existing exemptions with some modifications as set out in Chapter 7 and Chapter 9 of this draft report.

- the AEMC's rule making powers under the energy laws would apply to the regulatory framework for embedded networks
- the AER would have appropriate regulatory, monitoring and enforcement functions and powers
- AEMO would be able to impose obligations under its procedure making powers in the energy rules

Promoting compliance

Having clear requirements to be registered or authorised unless specific exemption criteria apply will promote compliance with these requirements. Requiring registration means obligations will be placed on the party best able to meet those obligations and manage any associated risks

The proposed changes to the authorisation, registration and exemption framework should remove confusion over whether registration/authorisation or an exemption is required.

Requiring that authorised retailers and registered embedded network service providers be the accountable party at embedded network child connection points removes the risks to consumers, identified by the AER and other stakeholders,[255] in being supplied by exempt sellers and network service providers with limited capacity and resources to manage unregulated third parties because the authorised and registered service providers will be required to be assessed for their capability to fulfil these obligations before being registered.

Some body corporates, retirement villages and other types of entities that wish to supply to tenants and residents as an incidental activity may decide to authorise as a retailer and register as an embedded network service provider. However, we expect the existing trend for outsourcing network and retail activities to continue and the proposed changes will result in many of the existing third parties that currently operate in the sector, for example as agents for exempt embedded network operators, will instead become authorised and registered.[256]

Using a registration and authorisation framework, rather than an exemption framework without any entry tests, means obligations will be placed on the party best able to meet those obligations and manage any associated risks, including the management of third parties and agents. The Commission considers this will be the most effective way of addressing concerns raised by stakeholders regarding the currently limited enforcement powers the AER has in respect to third parties and agents.

---

255 AEMC, Review of regulatory arrangements for embedded networks, Consultation Paper submissions: AER, p. 4; ECA, p. 10; SACOSS et al, p.8.

256 Some developers and owners corporations may choose to establish an entity to apply for retailer authorisation and register as an embedded network service provider, if they have the capacity and resources, so that they can establish an embedded network and on-sell electricity to customers. In this case, the owners corporation will continue to be accountable under its authorisation and registration for third party compliance.

Transparency and information provision

The proposed framework will provide an increase in transparency for small customers in embedded networks regarding which entity is providing their energy services, and who is responsible for providing their consumer protections under the national framework. By way of example, when EWON receives a complaint against an exempt entity which outsources activities to third parties, it is often not apparent to the customer or EWON who that entity is. EWON submitted that "it is clear from the complaints we receive, that many embedded network customers are confused about who is actually providing their energy services, and who is responsible for setting the energy rates and network charges they are asked to pay".[257] Under the proposed framework it will be clear to small customers in embedded networks, the AER and the jurisdictional ombudsman and that the authorised on-selling retailer is responsible for the sale of energy irrespective of third parties the retailer may engage.

As retail customers, under the proposed framework, embedded network customers would also have the same rights to information under the NERR as standard supply customers. For example, consumers in embedded networks will have increased access to information on their electricity consumption. As customers of authorised retailers, consumers in embedded networks will be able to access consumption and billing data in defined formats at no charge to help them better understand their bills and compare offers. [258]

As set out in chapter 9, additional information provisions will also be included in the NERR to enable consumers to make informed decisions about entering embedded networks and compare offers.

8.4.3 Promoting consumer choice in products and services, competition and efficient investment

Some embedded network businesses[259] argued they provided benefits to customers that set them apart from conventional retailers. These off-market services may include services such as the on-selling of electricity at a discounted tariff, the sale of electricity supplied by embedded generation, energy demand management services and additional services such as water and telecommunications which are combined with the overall service offering.

Under the proposed framework, authorised on-selling retailers will be able to continue offering services that provide reduced prices or additional benefits to customers in competition with on-market authorised retailers.

However, elevating embedded networks into the rules and market procedures means that if off-market embedded networks customers are dissatisfied with their off-market arrangements they will have increased ability to access retail market offers and have

257 EWON, submission on the draft report, pp. 1-2.

258 See http://www.aemc.gov.au/Rule-Changes/Customer-access-to-information-about-their-energy for detailed information on the Customer access to information about their energy consumption rule change process.

259 Submissions on the draft report: OC Energy, p. 5; Living Utilities, p. 7.

improved consumer protections. The Commission expects this to place downward pressure on prices and improve service quality for embedded network customers.

Elevating embedded networks into the national regulatory framework will also promote efficient investment in the supply of energy services. This is because there will only be an incentive to establish an embedded network where benefits can be offered to the customers of the embedded network. Under the existing exemption framework, while some embedded network operators do pass on benefits to customers, there is a risk that embedded networks are established primarily to avoid the costs of important consumer protections or to capture customers by limiting their ability to access competition.

The AER commented that the proposed framework does not alter profit incentives for site owners/bodies corporate to retrofit existing sites, enabling them to collect LNSP network service charges from EN customers, and thus providing profit making opportunities.[260]

During consultation stakeholders raised concerns regarding the impacts of the proposed framework on providing services such as bundled offers and embedded generation. These issues are discussed below.

Service bundling

Embedded network operators may, for example, choose to offer bundled utility services and market these as an advantage of entering an embedded network. However, in the case where embedded network operators are only required to meet the standing offer price regulation, without competitive pressure they could potentially use electricity tariffs to cross-subsidise other utilities in the embedded network or maximise profits. The Commission considers that the use of electricity tariffs to cross-subsidise other utilities does not meet the national electricity objective as it does not result in an efficient outcome for electricity consumers.

This review is based around the principle that customers in embedded networks should be able to access competition and consumer protections, similarly to standard supply customers. Therefore the development of a competitive environment within embedded networks should result consumers receiving the lowest price for the supply of their electricity services.

In a competitive market, cross-subsidising is not sustainable as it may lead to the subsidising customers switching to alternative service providers to receive a more competitive offer. Under the new embedded network framework embedded network operators will be required to comply with information provisions regarding bundling of energy services with other services. The cost of electricity services should be transparent for consumers entering embedded networks to allow consumers to make an informed decision about their electricity services.

260 AER, submission on the draft report, p. 3.

Embedded generation

Under the proposed framework embedded network operators could also continue to use embedded networks to facilitate onsite embedded generation to provide a number of benefits for the developer,[261] embedded network operator and energy consumers.

The Commission notes that embedded network operators are concerned that providing on-market retailers improved access to embedded network customers would undermine investment in embedded generation.[262] The Commission does not consider that these concerns should be addressed by maintaining barriers to customers accessing the retail market. Rather, these concerns should be addressed by putting in place measures for the provision of information to allow customers entering embedded networks to make an informed decision. Provided consumers have access to information to compare offers, if embedded generation in an embedded network is competitive with the retail market, investments should remain viable.

Further, the Commission understands that the benefits of embedded generation sometime flow through to the embedded network operator and the owners of a building rather than to tenants as energy consumers. For example, some embedded network operators use embedded generation to power other utilities such as water recycling or hot water systems.[263] A case study on Flow Systems in the 2017 AEMC Retail Competition Review Final Report suggested that Flow's generation assets are centrally-owned with revenue generated used to pay for energy used in the common areas as well as to reduce strata levies on the owners.[264]

Several participants in the Commission's workshop on the draft report stated that this business model is common. While lower strata levies may flow through to tenants in the form of lower rent, or tenants may receive other utility services at a lower cost, the Commission considers this benefit may not be transparent to energy consumers. The Commission considers that improving transparency and the provision of information around the use of this revenue stream would allow consumers to make an informed decision when considering entering an embedded network.

The Commission considers a competitive framework will promote efficient investment in embedded generation by appropriately placing the investment risk of embedded generation on the embedded network owner, rather than embedded network customers. Effective competition between embedded network operators and on-market retailers is also expected to place competitive pressure on embedded network operators to pass on the benefits of embedded generation directly to energy consumers in embedded networks, rather than using the revenue for common purposes, and thereby place downward pressure on prices.

---

261 Chapter 9 of the AEMC 2017 Retail Competition Review identified that developers benefit from establishing embedded networks that incorporate renewable energy. Some of these benefits to the developer include marketing their sustainability credentials to potential investors, and/or through the granting of land-use concessions such as increased density for buildings with sustainability certifications

262 Flow, submission on the draft report, pp. 4-5.

263 AEMC, 2017 Retail Competition Review, final report, p. 151.

264 Ibid, p. 152.

The Commission also notes that an embedded network is not necessary to facilitate onsite generation for common purposes and utilities as this can be installed behind the meter for these common areas and other utilities. Also, if customers go on market in an embedded network with embedded generation that is used for common purposes and utilities there should be no impact on the benefits of the embedded generation.

8.4.4 Proportionality and regulatory burden

The Commission acknowledges that elevating the regulation of embedded networks into the national framework will involve some costs for participants and market bodies. As we note above, providing consumer protections and providing access to the retail market is not costless. However, the Commission considers these costs will be minimised and proportionate to the benefits or the proposed changes.

We note that the AER does not currently charge fees for assessing or granting retailer authorisations. One of the main additional costs to embedded network service providers and parties wishing to on-sell will be the costs of preparing applications for registration as an embedded network and authorisation as a retailer. However, this is a one-off cost which the Commission considers reasonable in order to demonstrate capacity and suitability to provide the respective services.

Registered participants may also pay participant fees to AEMO. However, we consider it reasonable that embedded network service providers and authorised retailers that register as a customer have the potential to contribute a proportionate amount towards the operational costs of the market.

Registered embedded networks and authorised retailers will also have the costs of complying with obligations under the NERL, NEL, NERR and NER. However, we do not expect the cost of complying with the rules to be significantly more than the cost of complying with exemption conditions.

However, as discussed in the sections below, these obligations are key to:

- enhancing monitoring and enforcement, which will build consumer confidence to enter into embedded network arrangements
- providing access to retail market competition, which will place downward pressure on prices for consumers in embedded networks.

The AER and AEMO will also have costs relating to assessing applications for retailer authorisations and registered embedded network service providers. However, we consider the benefits to consumers of requiring authorisation and registration will outweigh these costs.

8.4.5 Conclusion

In summary, the Commission expects that elevating the regulation of embedded networks out of the exemption framework into the national framework will be in the long term interests of consumers:

- Consumers will have greater access to retail market competition and an appropriate level of customer protections

- Elevating the regulation of the majority of new embedded networks into the national framework provides clear regulatory functions to each of the market bodies in relation to embedded network participants, including providing appropriate monitoring and enforcement functions and powers to the AER
- A clear and transparent regulatory framework should remove confusion over whether registration/authorisation or an exemption is required, promote compliance and will also provide regulatory certainty for participants wishing to develop innovative off-market services
- There will continue to be an incentive to establish an embedded network where benefits can be offered to the customers of the embedded network, but not where doing so is to avoid the costs of important regulatory protections.

8.5 Sector specific issues - narrowing the exemption framework

Stakeholders from specific sectors argued that the exemption framework should not be closed off to mixed use caravan parks and shopping centres[265] A number of stakeholders also considered the exemption framework should include a category for "community energy projects.[266]

This section sets out sector issues relating to narrowing the exemption framework with respect to:

- shopping centres
- caravan parks, manufactured homes and residential parks
- community energy projects

8.5.1 Shopping Centres

Stakeholder views

The Shopping Centre Council did not consider there was sufficient evidence that there is a structural failure to the extent that it warrants the proposed structural reform.[267] It's submission on the draft report indicates that the sector wishes to consider being able to be a provider of electricity to tenants in its centres and that the compliance culture of its members and type of tenants in shopping centres mean a light handed regulatory approach under an exemption framework is appropriate for the sector.

The Shopping Centre Council argued that a number of features make that set the sector apart from residential embedded networks:

- Around 80 per cent of their customers are large corporate entities.[268]In some cases, the Shopping Centre Council submit that energy procurement by these companies is managed by industry professionals with the benefit of specialised energy and legal advice. The Shopping Centre Council highlights that such

265 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; SSC, p. 1.

266 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; PIAC, p. 7.

267 SSC, submission on the draft report, p.2

268 Mr A Nardi confirmed this by email on 1 November 2017.

shopping centre tenants are neither vulnerable, or in the same position as customers in residential embedded networks.[269]

- The sector also has 'short' and 'temporary' occupancy. This includes short-term leases (commonly referred to as 'pop-up shops') and also 'casual mall licensing'. The average casual mall licenses go for a 12-day period.[270]
- Some centres already have 10-20% of their tenants as 'on-market' customers.[271]
- There is sector specific regulation including retail tenancy legislation.[272]

AEMC analysis and final recommendation

The Commission has considered the Shopping Centre Council's concerns using the guiding principles set out throughout this report including any new framework should be customer focussed.

The Commission does not consider the particular type of short-term occupancy in the sector, i.e. mall pop-up shops are a key consideration. The Commission understands from discussions with stakeholders that this type of tenants' electricity is not metered. Mall pop-up shops use what the Commission understands is called "house power" which is the electricity used throughout the common areas and is referred to as an "outgoing" in all shopping centre leases.

The Shopping Centre Council argues that while its members' tenants would be classified as small customers under the NERL are, in the main part, large corporate entities. The Commission has considered the implications of including an individual exemption category[273] that provided for embedded networks where customers are predominantly large corporate entities.

While the large corporate entities in shopping centres may currently be able to overcome barriers to accessing competition, including metering issues, within an exemption framework this may not be the case for small businesses or sole traders that are tenants in the same embedded network. A key feature of the proposed framework that facilitates access to competition is the appointment of a Metering Coordinator, which is not required under the exemption framework. Given energy is a key input and cost for small businesses, the Commission maintains that access to the retail market should be facilitated in embedded networks that include both large corporate entities and small businesses.

The proposed framework, which requires the authorisation of on-selling retailers, also recognises the importance of consumer protections for all small customers which include both residential customers and business customers who consumer energy at business premises below the upper consumption threshold. The Commission considers that the exemption framework should be consistent with the NERL which makes a

269 Shopping Centre Council, submission on the draft report, p. 6.

270 Ibid, p. 2.

271 Ibid.

272 Ibid, p.2 and p. 6.

273 Individual exemptions must be approved by the AER.

distinction between large and small customers rather than between 'large corporate entities' and 'small businesses'.

Further details of the new exemption framework are set out below in Section 8.7 and Section 8.9.

Recommendation 8

That the exemption framework does not provide sector specific class exemptions to shopping centres, residential parks or community energy projects.

8.5.2 Caravan Parks, Manufactured Homes and Residential Parks

Stakeholder views

The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW agreed that new holiday parks should continue to be exempt.[274] Although the Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW noted most new residential villages are established with standard supply arrangements it requested that consideration also be given to retaining an exemption framework for residential land lease communities on the basis that they benefits to residents and are a provider of affordable housing.[275]

The AER was concerned an unintended consequence of distinguishing between parks based on whether residents are long or short stay is that to meet the lower threshold (for example, exemption) new park operators may choose not to offer long term residency.[276]

AEMC analysis and final recommendation

The Commission's final recommendation is that residential parks are not included as an exemption category in either the network service provider exemption framework or exempt seller framework.

The Commission understands that new parks are established as either a 'holiday park' or a 'residential park' and that mixed parks are no longer established for a number of reasons including jurisdictional regulations.[277]Manufactured Housing Industry Association of NSW indicate that new residential parks generally choose to establish standard supply arrangements. Mixed use parks are therefore primarily a legacy issue.

The Commission understands that the majority of residents in residential parks are on fixed incomes.[278] Although the rate of growth in manufactured homes and residential parks is low (See figure 3.4) the Commission considers it important residents in these

274 CCTI & MHIA of NSW, submission on the draft report, p. 1.

275 CCTI & MHIA of NSW, submission on the draft report, p. 1.

276 AER, submission on the draft report, p. 4.

277 Ms S Lakic confirmed this in discussion on 30 October 2017.

278 Mr G Martin confirmed this by email on 29 September 2017.

communities have the benefits of the national regulatory framework, including access to competitive retail market offers, energy ombudsman schemes and concessions through either:

- standard supply arrangements
- a registered embedded network service provider and authorised on-selling retailer.

8.5.3 Community energy projects

Stakeholder views

A number of stakeholders considered community driven projects should be permitted under the exemption framework if benefits could be demonstrated. PIAC submitted that in their view:[279]

> "an important feature of effective markets and competition in the future energy system, will be that willing communities of consumers are able to establish innovative energy projects. Where, for example, these projects are based around solar PV and/or battery installations, having an embedded network can be essential to realise the cost benefits."

PIAC did not consider that many of these consumer driven projects, which enabled shared embedded generation and collective bargaining power for import and export prices, would benefit from access to the contestable retail market. In summary, PIAC recommended that the exemption framework permit innovative projects, such as community energy projects, that have demonstrable consumer benefits and whose business cases are reliant on the establishment of an embedded network.[280]

The Centre for Environmental Markets, UNSW and Australian Photovoltaic Institute also suggested the demonstration of the provision of consumer benefits could in these cases be used to justify less onerous obligations or responsibilities, possibly including exemption.[281]

However, other stakeholders raised concerns regarding closing exemptions for consumer driven projects. SACOSS submitted that they have concerns with respect to the representations that embedded network businesses, which include third parties and retailers, make to body corporates about the benefits and the reduction in access to retail market competition and consumer protections that these consumers have under the exemption framework following a conversion.[282] In its submission on the consultation paper, the AER raised similar concerns regarding the marketing of third parties and retailers to body corporates.[283]

Energy Queensland submitted it would support a flexible approach to exemptions for some small residents where the benefits of registration would be outweighed by the

279 PIAC, submission on the draft report, p. 7.

280 PIAC, submission on the draft report, p. 7.

281 CEEM, submission on the draft report, pp. 3-5.

282 SACOSS, submission on the draft report, p. 12.

283 AER, submission on the consultation paper, p. 7.

costs.[284] However, Energy Queensland suggests that these customers should not be disadvantaged by receiving a lower level of consumer protection and any decision to apply such flexibility should be supported by a more detailed cost benefit analysis. Energy Queensland considered exemption from registration should be granted only under limited circumstances. Furthermore, Energy Queensland considered exemptions should be approved by the AER.[285]

AEMC analysis and final recommendation

The Commission appreciates the embedded network business model can offer benefits to consumers in the form of lower prices due to lower bulk purchasing power, lower network charges, and embedded generation. There are a number of examples of small groups of property owners including body corporates and housing cooperatives using the embedded network business model to realise these benefits under the current exemption framework. For example, the 2017AEMC Retail Competition Review, final report, provided a case study of the Stucco student housing cooperative which was retro-fitted as an embedded network.[286]

However, the Commission considers PIAC, and other stakeholders', proposals to include an exemption framework for community energy projects raise a number of questions:

- How would a community energy project be defined?
- Would a community energy project be able to out-source particular functions to third parties?
- Should one consumer's choices be restricted by another group of consumers?
- How would benefits offered to the community by third parties be assessed and enforced?

As discussed elsewhere, greenfield embedded networks are generally developer driven. A consumer driven embedded network would usually be a brownfields conversion of an apartment block, for example. PIAC has suggested such community projects remain eligible if community benefits could be demonstrated. However, the Commission is of the view that it would be difficult to assess, monitor and enforce consumer benefits under an exemption framework.

The Commission also agrees with stakeholders such as the AER and SACOSS that brownfields conversions also raise issues with respect to consumer protections and diminished access to retail market competition.

Even in consumer driven energy projects, a range of compliance and consumer issues, common to all embedded networks, can arise. For example, non-compliance with technical standards which impact on network reliability may become an issue or billing and payment disputes may arise. The Commission considers transparency regarding the identity of the entity responsible for the sale and supply of energy, monitoring and

284 Energy Queensland, submission on the draft report, p. 4.

285 Ibid, p.4.

286 See Box 9.4, AEMC, 2017 Retail Competition Review, final report, p. 155.

enforcement of embedded network operator behaviour and access to consumer protections such as access to ombudsman is equally important in consumer driven energy projects. As such, the Commission does not consider it would be consistent with the NEO and NERO to include exemption categories based on the number of energy customers to be supplied or the profit motive of the embedded network operator and on-seller.

The Commission is of the view that the regulatory framework should promote community or consumer driven embedded network projects where these projects provide consumer benefits and increased choice. However, consumers in these embedded networks must also have the appropriate consumer protections and the option to choose an alternative retailer if they become dis-satisfied with their supply arrangement. The Commission expects there to be the ability to implement community driven projects under the proposed framework, including through authorised and registered third parties as more become available to provide services and manage compliance requirements.

We acknowledge that consumer protections are not costless and that compliance costs under the new framework may be higher than under an exemption framework. However, as we discuss below in Section 8.8.5, barriers to entry should be addressed through means other than an exemption framework such as designing compliance activities to be proportionate.

In conclusion, the Commission considers that it would be in the long-term interests of consumers if community energy projects are implemented within the proposed framework which requires the supply and sale of energy to small customers in embedded networks to be provided by a registered embedded network service provider and authorised on-selling retailer.

8.6 Embedded network service provider registration framework

Elevating the regulation of embedded network services to small customers includes requiring the registration of embedded network service providers with AEMO unless exempted by the AER according to a narrow set of circumstances.

This section sets out:

- current responsibilities of exempt network service providers
- the AEMC's draft position and recommendations on the embedded network service provider registration framework
- stakeholder views on the draft recommendations on the embedded network service provider registration framework
- the AEMC's analysis and final recommendations, including issues for further consideration.

8.6.1 Current responsibilities of exempt network service providers

Exempt embedded network service providers currently hold a number of important responsibilities, which include cooperating closely with other market participants, in relation to:

- ***the safe installation, operation and maintenance of the embedded network*** in accordance with jurisdictional requirements including:[287]
  - co-operating with reasonable requests for information from the LNSP[288]
  - maintaining safety plans for large networks, if required by the jurisdiction in which the network is located, and be capable of load shedding in emergency situations[289]
  - being capable of shutting down or disconnecting local generation in the event of a loss of supply from the LNSP's network, where the embedded network contains a generation or inverter source[290]
- ***life support processes*** including notifying the LNSP and additionally, from 1 December 2017, the parent connection point retailer and the child connection point retailer in relation to life support customers[291]
- having ***dispute resolution processes*** which must be reasonably accessible, timely and binding on the parties to the dispute and not subject to excessive or unnecessary costs nor to costs disproportionate to the amount in dispute[292]
- apportioning and passing on ***external network charges*** from the LNSP.[293]

However, under the current exemption framework, embedded network service providers are not required to demonstrate their capacity to meet these responsibilities.

8.6.2 AEMC draft position and recommendation

Given the responsibilities set out above, the Commission gave its view in the draft report that it is appropriate that embedded network service providers should be required to demonstrate their capacity to meet their obligations and meet similar reporting and compliance obligations of other registered participants. However, currently the only other option to being exempt is registering as a network service provider which would place an extremely high regulatory burden on an embedded network service provider.

The Commission specifically made the following draft recommendations:

287

288 s. 4.1 at condition 3 of the AER network exemption guideline.

289 ibid.

290 s. 4.1 condition 4 of the AER network exemption guideline.

291 s.4.1 at condition 6

292 s. 4.1.6 of the AER network exemption guideline.

293 s.4.6.2 of the AER network exemption guideline

- Any person who engages in the activity of owning, controlling or operating an embedded network must be registered with AEMO or exempted by the AER in a narrow set of circumstances
- To be eligible for registration as an embedded network service provider, the applicant be required to satisfy AEMO that it has the capability to comply with the NER and the procedures authorised under the NER
- Registered embedded network service providers be required to comply with certain obligations that currently apply to all Registered Participants under the NER, including:
  - participation in the NER dispute resolution process under clause 8.2 of the NER
  - confidentiality obligations with respect to confidential information
  - reporting requirements as determined by the AER
  - an obligation to pay any participant fees to AEMO
- Registered embedded network service providers be required to comply (in whole, or in part) with regulatory oversight and reporting requirements (Part 12 of the NERL).

To avoid imposing disproportionately onerous obligations, the Commission recommended that registered embedded network service providers would only be required to comply with a sub-set of obligations that network service providers are subject to. Registered embedded network service providers would not be subject to:

- price and revenue regulation pursuant to Chapter 6 of the NER
- all detailed technical standards in Chapter 5 of the NER
- requirements to ring-fence the provision of distribution services from the provision of other services in accordance with the AER's Distribution Ring-Fencing Guideline[294]
- obligations to provide connection services (see Chapter 5A of the NER in relation to making new connections and connection alterations, and Part 3 of the NERL and Part 4 of the NERR).

8.6.3 Stakeholder views on the draft report

There was broad agreement from a number of stakeholders that embedded network service providers be required to meet market entry criteria.[295] Simply Energy submitted:[296]

> "From a safety and reliability standpoint, there are numerous benefits of requiring embedded network operators to be authorised and comply with

294 Made pursuant to cl. 6.17.2 of the NER.

295 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; Energy Australia, p. 9; Energy Queensland, p. 4; EWOSA, p. 1; Origin, p. 2; Simply Energy, p. 1.

296 Simply Energy, submission on the draft report, p. 1.

major elements of the National Electricity Rules. As the Commission points out, this requirement would ensure that embedded network operators have the capabilities to perform their energy supply functions."

In respect of specific obligations, Origin submitted that the current AER network exemption guideline provides a relevant set of obligations which could equally apply to registered embedded network service providers. Origin considered that the new role and supporting customer protections should focus on certain obligations including life support, dispute resolution and metering obligations.[297] Origin submitted that:

> "[it would] not like to see some of the obligations that apply to regulated networks transposed into the ENSP role as they are disproportionate to the requirements for operating and embedded network. An example of a disproportionate obligation includes the distributor obligations around maintaining electrical infrastructure...the electrical infrastructure of a high-rise building is the same regardless of it being an embedded network or not. We would therefore expect that there would be no distribution obligations attached to the ENSP with respect to this infrastructure."

Stakeholders, including EWOSA, agreed the recommended list of obligations in the NER that registered embedded network service providers would not be required to comply with - such as revenue and price regulation, some technical standards, connection services and ring-fencing guidelines - appear to be appropriate.[298] EWOSA commented that complying with these aspects of the NER would significantly increase the costs for new embedded network operators of becoming registered embedded network service providers and the costs to the AER of undertaking regulatory determinations for so many embedded networks would also be substantial.

On the other hand, a number of stakeholders were concerned about aspects of consumer protection related to infrastructure service, performance and reliability within embedded networks.[299] Some stakeholders argued that consideration should be given to monitoring and enforcement of safety and reliability.[300] Energy Networks Australia stated:[301]

> "Poor reliability may be a sign of poor operation or maintenance of the embedded network. Energy Networks Australia contends that energy infrastructure access within an embedded network should be considered an essential service and that customers within embedded networks be able to expect equivalent standards of infrastructure service including performance and reliability as customers on the shared network."

A number of stakeholders suggested further consideration be given to the status of the embedded network owner in the regulatory framework.[302] The AER considered the

297 Origin, submission on the draft report, p. 4.

298 EWOSA, submission on the draft report, p. 2.

299 Submissions on the draft report: ENA, p. 2

300 Submissions on the draft report: ENA, p. 2; SACOSS, p. 6.

301 ENA, submission on the draft report, p. 2.

302 Submission on the draft report: AER, p. 3; SACOSS, p. 10.

primary function of the embedded network service provider registration framework should be the regulation of participant behaviour and suggested registration requirements be specifically targeted at embedded network operators and controllers rather than owners.[303] On the other hand, SACOSS was concerned that the framework relied on a commercial relationship between a body corporate, for example, and a registered embedded network service provider. If this relationship broke down SACOSS queried whether consumer protections may be compromised.[304]

8.6.4 AEMC analysis and final recommendations

The Commission considers embedded network service providers should be required to demonstrate their capacity to meet their obligations and meet similar reporting and compliance obligations of other registered participants. However, currently the only other option to being exempt is registering as a network service provider which would place a disproportionate regulatory burden on an embedded network service provider.

The regulatory framework has been drafted on the assumption that network service providers own and operate large and complex networks which provide a monopoly service over a wide geographic area. Many of the regulatory requirements applicable to network service providers are not appropriate or necessary to achieve the national electricity objective or to protect the rights of end users in embedded networks if an appropriate regulatory framework for embedded networks is also in place.

The Commission requested MinterEllison to provide advice on implementing the specific recommendations on the embedded network service provider registration framework. Section 4.2 of the MinterEllison report discusses two options for elevating embedded network service providers into the national regulatory framework:

1. Creating sub-categories of network service providers within the NEL or NER, which would provide for a different set of rights and obligations depending on what category of network service provider the person has been registered as.
2. Providing the AER with limited discretion to exempt network service providers from certain obligations that ordinarily apply to network service providers. For example, the AER could exempt network services providers supplying Embedded Network customers from certain obligations such that only key aspects of the existing framework in the NER apply.

The Commission agrees with MinterEllison that the preferable option is creating sub-categories of network service providers within the NEL or NER, which would provide for a different set of rights and obligations depending on what category of network service provider the person has been registered as. The Commission considers that:

- Specifying within the legislation and rules the obligations of embedded network service providers will mean increased clarity is provided to those parties about their obligations, facilitating compliance with the regulatory framework.
- Establishing sub-categories reduces the regulatory burden on the AER because it does not require frequent and extensive exercises of discretion by the AER.

303 AER, submission on the draft report, p. 3.

304 SACOSS, submission on the draft report, p. 10.

The Commission acknowledges that the certain details of the registration framework and a number of other issues raised by stakeholders will need to be considered further. Issues to consider during the preparation of law and rule changes include:

- the specific obligations that should apply to registered embedded network service providers including whether reliability performance standards and reporting should be required
- how the embedded network owner should be regulated as compared to the embedded network operator and controller
- network billing for external network charges
- other policy and implementation issues raised in the MinterEllison report.

Further consideration may also be necessary with respect to the applicability of any recommendations to:

- microgrids including large non-interconnected systems supplying townships
- large, complex distribution systems, connected to the NEM, that supply large precincts

These types of distribution systems have more in common with the distribution systems of local network service providers which extend over a large geographic area. Network service provider registration and distribution licences may be more suitable for these types of distribution systems.

Table 8.2 Potential differences between the obligations for registered NSPs, exempt NSPs and registered embedded NSPs are set out in table 8.2.

Obligations	Registered NSP	Current Exempt NSP	Registered Embedded NSP
Price and revenue regulation	Chapter 6 of the NER	Under the AER exemption conditions an exempt network service provider can only pass on external network costs; they generally cannot impose a charge to the customer for internal network services	Chapter 6 of NER not to apply. Under the new framework the embedded networks service provider would be responsible for apportioning and passing on external network charges from the LNSP.
Technical standards	Chapter 5 of the NER	AER Exemption conditions	Some technical standards in Chapter 5 may be applicable. Where more appropriate, introduce new technical standards for embedded networks.

Obligations	Registered NSP	Current Exempt NSP	Registered Embedded NSP
Ring fencing	AER Distribution Ring- Fencing Guidelines	N/A	N/A
Connection services	Chapter 5A of the NER, Part 3 of the NERL and Part 4 of the NERR.	N/A	Rights to receive connection services will be extended to embedded network customers through other mechanisms.
Relationship between network service provider and retailers	Prescriptive requirements for DNSPs' relationships with retailers (Chapter 6B of the NER and Part 5 of the NERR);	Provisions in the network exemption guideline regarding communication with retailers, such as in relation to life support.	New provisions are required to address the relationship between the embedded network service provider and retailers.
Requirement that all off-market connections become on-market	Yes	N/A	No, off market connections will be permitted in embedded networks.
Monitoring compliance	Part 12 of the NERL	No reporting requirements	Part 12 of the NERL should apply in whole or in part.
	Chapter 8 of the NER	No reporting requirements	Reporting requirements under Chapter 8 of the NER to apply.
AER enforcement powers	NEL and the NERL	Limited enforcement options	NEL and the NERL

Recommendation 9

- **Create an embedded network service provider sub-category of network service provider within the NEL or NER, which would provide for an appropriate sub-set of rights and obligations.**
- **Place a proportionate set of standards and obligations on the role of embedded network service provider.**

8.7 Network service provider exemption framework

This section sets out:

- the current arrangements under the network service provider exemption framework

- stakeholder views on potential changes to the network service provider exemption framework
- the AEMC's draft position and recommendations
- stakeholder views on the draft report
- the AEMC's analysis and final recommendations, including issues for further consideration.

8.7.1 Current arrangements

Under the NER, the AER is responsible for determining applications for exemption from the requirement to register as a Network Service Provider and, to that end, is empowered to issue exemption guidelines.[305]

The NEL and the NER provide limited guidance to the AER in exercising its discretion to grant an exemption. The NEL requires the AER to determine applications for exemption in accordance with the NER, without itself imposing any substantive requirements on that exercise of discretion,[306] except in relation to some limited specific matters.[307] Under the NER, the AER's discretion is constrained only by the general requirements that:

(i) granting an exemption must not be, in the AER's opinion, inconsistent with the NEO[308]

(ii) must be consistent with its exemption guidelines[309]

In addition, clause 2.5.1(f) of the NER requires the AER, prior to granting any exemption under clause 2.5.1(d) to consult with the authorities responsible for administering the jurisdictional electricity legislation in the participating jurisdictions in which any transmission systems or distribution systems owned, operated or controlled by persons or class of persons under exemption consideration are located.

Since the AER is responsible for developing and issuing the exemption guidelines,[310] these requirements offer little substantive guidance to the AER in determining the network service providers that are appropriate subjects of circumstances for an exemption.[311] The AER also has discretion regarding the conditions that apply to each kind of exemption. Embedded network operators must then comply with the terms and conditions of these exemptions under the network exemption guideline.

305 Section 11(2) of the NEL, clause 2.5.1(a) of the NER and clause 2.5.1 (d) of the NER.

306 Section 13(3) of the NEL.

307 Such as the ENM Conditions – see clause 2.5.1(d1) of the NER.

308 Clause 2.5.1(d) of the NER

309 Clause 2.5.1(d) of the NER.

310 Clause 2.5.1(e) of the NER.

311 Clause 2.5.1(d)(2) of the NER.

8.7.2 Stakeholder views on the consultation paper

Stakeholders made a number of suggestions in relation to the exemption framework including:

- simplifying the exemption process [312]
- limiting the exemption framework to small scale embedded networks and selling arrangements
- removing the deemed category from the exemption framework due to the visibility and compliance issues it raises[313]
- expanding deemed and registrable categories to cater for the growing market in renewables and community energy projects[314]
- providing more guidance to the AER on the granting of exemptions[315]
- providing the AER with explicit monitoring and enforcement powers to support its role in managing the exemption framework[316]

8.7.3 AEMC draft position and recommendation

The Commission assessed the network service provider exemption framework to be no longer appropriate for many classes of activities and that greater regulatory oversight is required in relation to the operation of embedded networks where there are obligations to customers such as life support, dispute resolution processes and network charging.

The Commission made a recommendation in the draft report[317] that more guidance should be provided in the NER to the AER on the criteria for network exemptions and that these exemptions be limited to circumstances where the embedded network only supplies:

(a) infrastructure

(b) related parties such as subsidiary companies

(c) the owners of short duration accommodation

In the first situation, a network exemption would be appropriate because there is typically a single customer, the owner of the infrastructure. In the second and third situations, access to retail competition is unnecessary and the regulatory oversight of an exemption framework is likely to be sufficient in relation to the operation and maintenance of the embedded network.

312 Active Utilities, Submission on the consultation paper, p.3.

313 ECA, submission on the consultation paper, p. 8.

314 Flow, submission on the consultation paper, p. 8.

315 SACOSS et al., submission on the consultation paper, p. 31.

316 Submissions on the consultation paper submissions: AER, p. 4; ECA, p. 12; SACOSS et al, p.11.

317 See section 8.6.3 of the draft report.

8.7.4 Stakeholder views on the draft report

Some stakeholders, including EWOSA broadly supported the exemption categories recommended by the Commission in its draft report.[318] Origin agreed there is still a role for the exemption regime but agreed with the Commission that exemptions should only be provided "where appropriate circumstances demonstrate that these customer relationships are different".[319]

Aurizon Networks, which operates an extensive electrified heavy haulage rail network in Queensland that connects coal mines to ports and generators, made a submission setting out its concerns that the proposal to require embedded network service providers to register with AEMO would expand to include other types of distribution systems that are currently eligible for an exemption from the AER.[320]

Aurizon Networks considered that its electric traction network would likely fall within the "infrastructure" category of exemption proposed in the draft report.[321] However, Aurizon Networks argued that if the exemption categories were to be prescriptive, and the AER's discretion limited, there would be a risk that Aurizon Network would not fall within the proposed exemption framework. Aurizon argued it was already regulated by the Queensland Competition Authority and that it would be costly, and would provide limited, if any, additional benefit to consumers sourcing electricity from the Aurizon Network's electric network if it were required to register as a network service provider.[322]

Aurizon proposed that:[323]

- infrastructure be defined more broadly to reflect the diversity of Australian infrastructure operations
- specifically include electric traction networks that have multiple independent consumers of varying scale and nature
- the NEO be incorporated into any proposed framework so that if a narrow interpretation of the exemption criteria is adopted, the AER retains discretion to grant exemptions.

As set out in Section 8.5 stakeholders from specific sectors argued the exemption framework should not be closed off to mixed use caravan parks[324] and shopping centres.[325] A number of stakeholders also considered the exemption framework should retain a category for "community energy projects.[326]

---

318 Submissions on the draft report: EWOSA, p. 3.

319 Origin, submission on the draft report, p. 1.

320 Aurizon Networks, submission on the draft report, p. 1.

321 Ibid, p. 4.

322 Ibid, p. 1.

323 Ibid, p. 4.

324 CCTI & MHIA of NSW, submission on the draft report, p. 1.

325 Shopping Centre Council, submission on the draft report, p. 1.

326 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; PIAC, p. 7.

The AER supported embedded network service provider registration with AEMO and retailer authorisation with the AER as discussed above. However, the AER also considered its flexibility to regulate embedded network operations should be preserved by using a principles-based approach to limiting exemption eligibility.[327] The AER's concerns with respect to flexibility were discussed in more detail with respect to the NERL and NERR and are set out in Section 8.8 below.

8.7.5 AEMC analysis and final recommendation

As the Commission acknowledged in the draft report, an exemption framework will be important to maintain to address situations where registration would be unnecessary or unduly costly. This issue is particularly significant with respect to network exemptions given the broad definition of a distribution network.

The Commission agrees with stakeholders that exemption categories should not capture distribution networks that would be more appropriately regulated under an exemption network.

Stakeholders have suggested this could be done by:

- expanding the definition of 'infrastructure'[328]
- providing class exemptions to specific sectors such as caravan parks, shopping centres and community energy projects[329]
- providing the AER with discretion to grant exemptions where it considers, for example, that an exemption would meet the NEO.[330]

While the Commission agrees that the definition of infrastructure needs to be defined broadly enough to capture distribution systems such as electric traction systems, it does not consider that class exemptions for specific sectors are required if the criteria for network service provider exemptions are appropriate for the reasons given in Section 8.5. A sector specific approach risks overly focussing on supplier factors, rather than customer factors. The Commission considers the exemption criteria to be included in the NER for new embedded networks should be customer focussed, rather than sector focussed, and should provide the AER sufficient prescription to give regulatory certainty while providing some discretion to manage unforeseen circumstances.

Chapter 5 of the MinterEllison report sets out considerations and regulatory amendments to implement a narrower network service provider exemption framework.

Recommendation 10

Narrow the network service provider exemption framework by:

- **introducing a principles based exemption framework which restricts exemptions to where the cost of registration would be high compared to**

327 AER, submission on the draft report, p. 4.

328 Aurizon Networks, submission on the draft report, pp. 1-4.

329 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; PIAC, p. 7, SSC, p. 1.

330 Aurizon Networks, submission on the draft report, p. 6.

the benefits to consumers and the requirement for regulatory oversight is low

- **providing direction to the AER that exemptions are restricted to distribution systems that:**
  - **only supply particular classes of customers including large customers and large corporate entities**
  - **predominantly supply customers in temporary accommodation**
  - **supply particular classes of infrastructure that the AER considers an exemption meets the NEO**
  - **the AER considers an exemption meets the NEO.**

8.8 Retailer authorisation framework

This section sets out:

- the current entry criteria and arrangements for applying for a retailer authorisation
- stakeholder views on the retailer authorisation framework
- the AEMC's draft recommendations for a more flexible retailer authorisation framework
- stakeholder views on the draft report
- the AEMC's analysis and final recommendations

8.8.1 Current arrangements

Applications for retailer authorisation are made to the AER.[331]

The NERL sets out three entry criteria that must be satisfied to obtain a retailer authorisation:[332]

- organisational and technical capacity - the applicant must have the necessary organisational and technical capacity to meet the obligations of a retailer
- financial resources - the applicant must have resources or access to resources so that it will have the financial viability and financial capacity to meet the obligations of a retailer
- suitability - the applicant must be a suitable person to hold a retailer authorisation.

The AER must publish a guideline for applications for retailer authorisation regarding the information that must be provided and how applications will be assessed. [333]

Under s. 93 of the NERL, the AER may impose conditions on the AER in relation to the satisfaction of entry criteria. However, the AER is unable to place conditions on the

331 NERL, s. 89(1).

332 NERL, s. 90.

333 s. 117(1) of the NERL.

authorisation in respect of factors unrelated to satisfying the entry criteria such as the duration of authorisation or the types of customers that may be supplied.

8.8.2 Stakeholder views

Many stakeholders considered that the NECF and authorisation framework had been designed in a more homogenous energy market and that NECF and the retailer authorisation framework should be amended to accommodate the emerging diversity in business models.

The AER submitted:[334]

> "We have previously noted the limitations of applying the same regulatory requirements to all energy sellers as, in our view, the 'one size fits all' authorisations framework provides significantly less flexibility and adaptability than the exemptions framework. A more tailored approach may be a better option and to date we have used the exemptions framework to regulate new, non-traditional selling. The regulatory framework may benefit from amendment to provide a sufficiently flexible mechanism to deal with the increasingly diverse embedded network market which is occurring as part of a broader market transformation."

The AEC agreed that more flexibility was required in the authorisations framework but was wary of a proliferation of tiers of authorisation or onerous regulation.[335]

The AEC, Momentum Energy and Red Energy submissions suggested a minimum standards approach should be taken for all energy sellers regardless of the connection type. Momentum suggested:[336]

> "that a single tier regulatory framework which focusses on ensuring that all customers have access to an appropriate level of protection is a more appropriate model. We acknowledge that some retailers have not always displayed behaviours which would engender a disposition toward paring back the regulatory obligations for authorised entities however in our view, much of this behaviour has resulted from the imposition of restrictive regulation which has incentivised retailers to seek out 'loopholes'. An appropriate minimum standard of customer protections would incentivise innovation in product offering and customer service and lead to lower retailer costs for customers regardless of whether they take supply from within an embedded network or not."

There were a number of other stakeholders that considered requiring parties that sell energy as an incidental activity to be regulated as retailers would be overly onerous and that the exemption framework already provided sufficient flexibility.[337]

For example, Origin stated:[338]

---

334 AER, submission on the consultation paper, p. 7.

335 AEC, submission on the consultation paper, p. 2.

336 Momentum, submission on the consultation paper, p. 2.

337 Submissions on the consultation paper: Living Utilities, p. 5; Origin, p. 3; Shopping Centre Council of Australia, pp. 7-9; TradeCoast Central, p.3; Victorian Caravan Parks Association.

> "Regulating all activities as if they were the same would mean that each embedded network would be regulated on the basis that selling energy is their primary business. Given the high level of regulation associated with energy sellers, this would create an excessive regulatory burden on embedded networks whose sale of energy is genuinely incidental to their primary business. Creating multiple tiers is unnecessary because different exemption categories already exist which allows specific regulatory obligations to apply to depending on the nature of the embedded network (e.g. a retirement community or a caravan park)."

Some stakeholders considered the existing retailer authorisations framework which regulates the 'sale of energy' is limited and that the authorisations framework should be extended to other types of energy products and services.[339]

ATA submitted that:[340]

> "The authorisations framework could be revised to include new small-scale authorisations designed for exempt sellers, solar PPA businesses, and other energy services providers. Small-scale authorisations would be predicated on a universal entitlement to the suite of consumer protections delivered by the NECF, with variations made only where a consumer protection is not applicable due to the nature of the exempt selling situation, or where it would cause compliance burdens that significantly outweigh the consumer benefits. These variations would be stipulated in the Retail Authorisation Guideline."

8.8.3 AEMC draft recommendation

The draft report recommended that all energy sellers should be required to hold a retailer authorisation, including for on-selling to small customers in embedded networks, except for a narrow set of circumstances.

The Commission recommended in the draft report that the retailer authorisation framework requires additional flexibility to accommodate on-selling in embedded networks while avoiding placing inappropriate obligations on energy on-sellers. The Commission proposed that within the new retailer authorisation framework the AER may require some discretion to exempt an authorised retailer which on-sells energy, from obligations which are not applicable to the nature of the selling activities or where the compliance burden would outweigh the consumer benefits. Similarly the AER may require powers to impose additional obligations on these authorised retailers which on-sell energy. While the Commission recommended that the AER retain some discretion regarding obligations and conditions of on-selling authorised retailers, the Commission recommended a minimum set of obligations should apply.

8.9.4 Stakeholder views on the draft report

A more flexible retailer authorisation framework

338 Origin Energy, submission on the consultation paper, p. 3.

339 Submissions on the consultation paper: AER, p. 7; ATA, p.2;

340 ATA, Submission on the consultation paper, p. 2.

Many stakeholders agreed that the current retailer authorisation framework does not adequately address the regulation of on-sellers and requires additional flexibility generally. The Energy Networks Australia, for example stated:[341]

> "Arguably, more effective competition in energy markets reduces the need for industry specific regulation (in this case, the National Energy Customer Framework or NECF). However, we share the Commission's view that the current regulatory framework for the sale of energy is no longer fit for purpose and that reform of the National Electricity Rules and National Electricity Retail Rules is necessary to account for the evolving competitive environment."

Minimum obligations

Many stakeholders commented that they were in general agreement that on-selling authorised retailers should be required to comply with a set of minimum obligations in the NERR.[342]

EWON considered in addition to the examples provided in the draft report, hardship policies, obligation to supply, access to rebates and emergency assistance payments should be included.[343] Other stakeholders such as AER, EWOSA and SACOSS considered that most obligations in the NERR should apply to on-selling authorised retailers with waivers from specific obligations being the exception.[344]

On the other hand, AGL considered that further consideration should be given to whether all existing energy specific consumer protections are necessary and fit for purpose, noting the continuing modernisation and digitalisation of the energy sector.[345]

AER discretion

Whilst SACOSS accepted the need for flexibility within the new framework, it submitted the AEMC should consider being as prescriptive as possible in its guidance to the AER, providing for the exercise of limited discretions only. The more flexible the regime, the more the AER's decisions may be subjected to challenges via administrative review processes.[346]

As set out in Section 8.2.3, EnergyAustralia also had concerns regarding providing the AER regulatory discretion, submitting that "this ongoing discretion about the form of regulation that applies to different business models creates an environment of uncertainty, undermining investment in or the development of new business models".[347]

---

341 ENA, submission on the draft report, p. 1.

342 Submissions on the draft report: AER, p. 3; AGL; p. 4; CCTI & MHIA, p. 11; CPAQ; p. 3; Energy Queensland, p. 4; EWON, p. 6; PIAC, p. 7.

343 EWON, submission on the draft report, p. 6.

344 Submissions on the draft report: AER, p. 5; EWOSA, p. 2; SACOSS, p. 9.

345 AGL, submission on the draft report, p. 5.

346 SACOSS, submission on the draft report, p. 9.

347 EnergyAustralia, submission on the draft report, p. 2.

Market entry

The AER supported having market entry requirements for on-sellers. The AER considered requiring sellers to satisfy entry criteria and comply with most retailer obligations "will standardise energy selling arrangements in ENs [embedded networks] and improve customer service obligations and protections".[348]

However, a number of stakeholders including embedded network operators and consumer groups considered that the costs of putting in place systems to comply with AER authorisation and AEMO registration would present barriers to entry and favour large incumbent retailers.[349]

While AGL was broadly supportive of the Commission's draft recommendation to elevate embedded networks into the national framework it too considered that onerous regulation may impede innovation. AGL submitted:[350]

> "As an authorised retailer, we are acutely aware of the significant operations and business costs required to adhere to the existing energy regulatory frameworks, including those applied by Jurisdictions. While the intention will be to apply selected elements of the national framework, these must be designed in such a way that it balances the benefits of embedded network service or reselling provisions with the increased cost, administrative and compliance burden. Importantly, the regulatory regime must also be flexible enough to accommodate innovation in product and service provision (including innovation in business or delivery model). An overly prescriptive and burdensome regulatory framework, including compliance activities such as overly rigorous performance reporting, or the development of energy price fact sheets etc. may act as a barrier to entry for new energy service providers and make the provision of novel energy products and services uneconomic despite being of real value to consumers."

The Shopping Centre Council considered that the draft report "trivialised" the requirements for retailer authorisation and further analysis was required on the costs for on-sellers.[351]

8.8.5 AEMC analysis and final recommendations

The Commission is of the view that changes need to be made to the existing retailer authorisation framework. The Commission agrees with the AER and other stakeholders that the 'one size fits all' framework under which authorised retailers currently operate provides significantly less flexibility and adaptability than the exemptions framework.

Chapter 4 of the MinterEllison report provides options for implementing a more flexible retailer authorisation framework consistent with the recommendations made in

348 AER, submission on the draft report, p. 3.

349 Submission on the draft report: CEEM, pp. 3-5; PIAC, p. 7.

350 AGL, submission on the draft report, p. 4.

351 SSC, submission on the draft report, p. 3.

the draft report. MinterEllison recommended an option that would establish sub-categories of authorised retailers within the NERL or NERR, which would provide for a different set of rights and obligations depending on the category of authorised retailer in which the person has been registered as.

The Commission has also considered stakeholder comments on specific issues below.

Requirement to hold a retailer authorisation

The Commission considers that a retailer authorisation should be required irrespective of whether:

- the sale of energy is the seller's principal business or is incidental to its other operations
- the seller is selling energy to a small or large number of sites
- the seller is registered in the wholesale market for the particular fuel source, and is the financially responsible retailer for the particular premises.

This is because on-sellers in embedded networks are the primary source of energy to the premises of a small customer for gas or electricity. This is what sets apart energy on-sellers from other types of non-traditional exempt sellers such as those selling add-on or supplementary services to small customers.

Appropriate consumer protections

Having considered stakeholder submissions and reviewed the NERR, the Commission considers there are a limited number of protections that are inapplicable to small customers in embedded networks. For example, the Retailer of Last Resort provisions may not be applicable to embedded network customers. These few obligations can be removed from the obligations placed on-selling authorised retailers.

Despite minimal obligations being inapplicable to embedded network customers, the Commission considers creating a sub-category of authorised retailer will still be necessary. For example a mechanism may be needed to take into account site specific obligations such as placing an obligation to supply on the on-selling authorised retailer associated with a particular embedded network.

AER discretion

The Commission supports giving the AER discretion to waive, or modify, inappropriate obligations. Regulators are sometimes faced with unforeseen or exceptional situations in which requiring businesses to meet the obligations of an authorisation is not required to meet the objectives and intent of the regulatory framework. Regulators require discretion to release businesses from obligations in such cases.

However, the Commission agrees with stakeholders such as SACOSS, that this discretion will need to be circumscribed so that customer protections are not eroded. This could potentially be achieved by requiring that any waiver give due consideration to the ***long-term interests*** of consumers. This could discourage a situation where the viability of a business is predicated only on lower regulatory costs at the expense of both current and future customers of that business.

The Commission agrees with stakeholders that where ever possible any modifications to obligations should be set out in the rules for clarity and transparency. MinterEllison has provided options for providing this discretion to the AER in Chapter 7 of its report.

Barriers to market entry

Stakeholders have raised the costs of retailer authorisation may present a barrier to entry for some embedded network businesses.

We note that the AER does not currently charge fees for assessing or granting retailer authorisations.[352] One of the main additional costs to embedded network service providers and parties wishing to on-sell will be the costs of preparing applications for registration as an embedded network service provider and authorisation as an on-selling authorised retailer. However, the Commission considers this cost to prospective on-selling authorised retailers reasonable in order to demonstrate capacity and suitability to sell energy to small customers.

The Commission also notes the issue of market entry costs is not unique to the embedded network business model and affects small retailers in general, including those that wish to offer new innovative services. The Commission is of the view that alternative measures to reduce market entry costs and promote innovation be considered in place of exempting on-sellers from holding a retailer authorisation.

For example, current retailer compliance activities, such as performance reporting, could be reviewed for proportionality and specific NERR obligations may be appropriate to review and amend if they are considered to be overly prescriptive and a barrier to innovation.

The AEMC has also recommended that jurisdictions harmonise their customer protection arrangements to reduce barriers to entry and costs for retailers, and that the COAG Energy Council ask the AEMC to provide advice on the existing suite of modifications that have been made by jurisdictions to the NECF and the differences between NECF jurisdictions and Victoria.[353] An assessment of the costs associated with diverging consumer protection schemes in different jurisdictions could be provided as part of that assessment.

Emerging business models and services

The Commission considers the increasing range of energy services and consumer options have implications for how consumers participate in the market, the information required to make informed choices and how they are protected. As part of its final advice on the Consumer priorities for the Australian energy sector, the Commission recommended a review of protections and gaps in consumer protections for new energy services, including in relation to distributed energy resources.[354]

Further to this, the Commission recommends considering how the proposed retailer authorisation framework could be adapted or extended to other non-traditional sellers where the energy seller is providing an "add-on" or supplementary service to a

352 AER Retailer Authorisation Guideline v.2 Dec 2014 p.7

353 AEMC, Strategic priorities for the Australian energy sector, final advice, 21 November 2017, p.24.

354 Ibid, p. 32.

customer who also buys energy from an authorised retailer instead of using the exemption framework as is the case now.[355] For example, the NERL could potentially provide for the authorisation of certain energy products or services that emerge as important in the supply of energy to customers. A flexible authorisation framework could provide a mechanism for incorporating unforseen energy products and services into the regulatory framework where energy specific consumer protections are considered to be warranted.

Where energy specific consumer protections are not considered necessary in relation to a particular class of energy products or services industry self-regulation and protections under Australian Consumer Law could be sufficient. The Commission notes that the COAG Energy Council is undertaking work on appropriate regulatory arrangements for other emerging products and services such as behind the meter services and stand-alone power systems under its Energy Market Transformation Work Program and has made some recent decisions on policy recommendations and how key areas of work will be taken forward.[356]

In August 2017, the COAG Energy Council announced Ministers have agreed to write to representative industry groups asking industry to lead the development of a Code of Conduct for new energy products and services. COAG Energy Council noted that there are clear benefits in industry taking the lead but that ministers may reconsider whether further regulatory intervention is required in the future.[357]

Recommendation 11

- **Require all authorised retailers to deliver an appropriate set of consumer protections for embedded network customers under the NERL and NER**
- **Establish a sub-category of on-selling authorised retailer within the NERL, which would provide for an appropriate sub-set of rights and obligations.**
- **Consideration be given to how the proposed retailer authorisation framework could be adapted or extended to other non-traditional sellers.**

8.9 Selling exemption framework

This section sets out:

- the current arrangements in the selling exemption framework

355 An example of a supplementary service would be a solar power purchase agreement which is a financial arrangement in which a business provides, installs and maintains, at no initial cost, a solar panel system to a customer and in exchange, the customer buys the energy provided by the solar panels for an agreed price (usually below that which would be charged by an electricity retailer) for an agreed period. Currently, these non-traditional sellers are regulated under the exemption framework. See AER, AER Statement of approach, Regulation of alternative energy sellers under the National Energy Retail Law, June 2014, p. 9.

356 COAG Energy Council, Energy Market Transformation Bulletin No 05 - Work Program Update, 3 August 2017, pp. 1-2.

357 Ibid, p. 1.

- stakeholder views on changes to the exemption framework
- the AEMC's draft recommendations on the purpose of the exemption framework, exemption criteria and increased guidance for the AER

8.9.1 Current arrangements

The factors that the AER may take into account in administering the retail exemption framework, including deciding whether a person or class of persons should be exempt from the requirement to hold a retailer authorisation include:[358]

- whether selling energy to consumers is incidental to the main purpose of a business
- the extent to which other laws would adequately regulate the applicant's behaviour
- whether the exempt seller intends to profit from the arrangement
- whether the cost of having an authorisation outweighs the benefits to consumers
- whether an insignificant amount of energy is being sold
- any other seller related matter the AER considers relevant.

The AER may also consider the characteristics of customers and the extent to which exemption conditions or the requirements of other laws would provide exempt customers adequate access to appropriate rights and protections, as well as any other customer related matter the AER considers relevant.

The NERL establishes three kinds of exemptions (individual, deemed and registrable).[359]

8.9.2 Stakeholder views

Stakeholders made a number of suggestions in relation to the AER's retail exemption framework, and the exemption framework generally, including:

- simplifying the exemption process[360]
- limiting the exemption framework to small scale embedded networks and selling arrangements[361]
- removing the deemed category from the exemption framework due to the visibility and compliance issues it raises[362]
- expanding deemed and registrable categories to cater for the growing market in renewables and community energy projects[363]

358 s. 115 of the NERL.

359 Ibid.

360 Active Utilities, Submission on the consultation paper, p.3.

361 AEC, Submission on the consultation paper, p. 4.

362 ECA, submission on the consultation paper, p. 8.

363 Flow, Submission on the consultation paper, p. 8.

- providing more guidance to the AER on the granting of exemptions[364]
- providing the AER with explicit monitoring and enforcement powers to support its role in managing the exemption framework[365]

8.9.3 AEMC draft position and recommendations

The Commission noted that the current exemptions framework is based on the activities of the seller, rather than the services provided to the customer. On this basis, the AEMC recommended that new exemptions be restricted to circumstances where the compliance burden on the seller would outweigh the consumer benefits, and the need for regulatory oversight is low. The draft report provided examples where the AER, under proposed new exemption criteria, would grant exemptions and recommended that the exempt seller and customer factors should be moved into the NERR.

8.9.4 Stakeholder views on the draft report

Stakeholders from specific sectors argued the exemption framework should not be closed off to mixed use caravan parks, shopping centres[366] and community energy projects.[367]

The Caravan, Camping & Touring Industry & Manufactured Housing Industry Association of NSW considered holiday parks should continue to be exempt from requiring a retailer authorisation submitting that:[368]

> "The sophistication of recreational vehicles (motorhomes, campervans and caravans, etc) that draw power from sites continues to increase, with units now fitted with several electrical appliances including fridges, air-conditioners, TVs, stereos washing machines and microwaves. These businesses should have the ability to charge tourists for the energy they consume on a 'user pays' basis."

The AER suggested:[369]

> "A principles-based approach should equally be used in providing for a more limited exemptions framework. Examples of a principles-based approach include establishing eligibility based on whether energy is sold to a small number of customers or to large customers, where the cost of authorisation (or employing an authorised retailer) is likely to exceed the benefits to EN [embedded network] customers and a low level of regulatory oversight is required (for example the current deemed exemptions and all but the R1, R2, R3 and R4 registrable classes). A

364 SACOSS et al., Submission on the consultation paper, p. 31.

365 AEMC, Review of regulatory arrangements for embedded networks, Consultation paper submissions: AER, p. 4; ECA, p. 12; SACOSS et al, p.11.

366 Shopping Centre Council, submission on the draft report, p. 1.

367 Submissions on the draft report: CCTI & MHIA of NSW, p. 9; PIAC, p. 7.

368 CCTI & MHIA of NSW, submission on the draft report, p. 1.

369 AER, submission on the draft report, p. 4.

principles-based approach to identifying sellers eligible for exemptions is preferable to limiting eligibility to particular types of selling arrangements. It avoids precluding as yet unforeseen energy selling models from obtaining exemptions, where exemption may be more appropriate than authorisation."

A principles based approach, the AER argued, would "avoid precluding as yet unforseen energy selling models from obtaining exemptions, where exemption may be more appropriate than authorisation."[370]

8.9.5 AEMC analysis and final recommendations

The Commission considers that the exemption framework permits the deeming, registration and granting of individual exemptions to energy sellers which are inconsistent with the NERO and the underlying rationale for the exemption framework.

This is due to:

- the broad nature of arrangements that get captured under the exemption framework including where an exempt party, for whom energy sales is considered incidental to its main business, contracts specialist third parties
- the self-assessment of energy sellers against the retail exemption guideline for being eligible to be deemed or registered as an exempt seller
- the retailer authorisation framework and NERR not providing for the authorisation and regulation of on-selling in embedded networks
- the exemption framework being used as an enabler of shared embedded generation.

In particular, the factor relating to whether the selling of energy is a core part of the exempt seller's business or is incidental to that business is problematic as it focuses on the seller and not the customer. If energy supply is an essential service that requires sector-specific consumer protections, we cannot see why those consumer protections should apply to some customers but not others based solely on the identity and business model of the energy seller. For example, we cannot see a justification for the potential situation under the current framework where:

- a business with 1,000 electricity customers is required to be an authorised retailer if its only business is selling electricity; but
- another business with 1,000 electricity customers is not required to be an authorised retailer and can instead obtain an exemption simply because it also has sizable other business operations.

As discussed above, the Commission considers that exemptions are not appropriate for selling to small customers in an embedded network irrespective of whether it is the seller's core business.

370 AER,

However, the Commission considers that an energy selling exemption framework remains necessary to address circumstances where:

- the costs of retail authorisation and facilitating retail competition would outweigh the benefits to customers, and
- the need for regulatory oversight is low.

The Commission recommends amending the exemption framework by removing the detailed seller factors and customer factors from the NERL and providing the AER the power to exempt persons, or classes of persons, from holding a retailer authorisation in accordance with the NERR. The Commission also recommends narrowing the exemption framework by including a set of factors the AER must take into account in exempting persons, or classes of persons, from holding a retailer authorisation.

The Commission agrees with the AER that a principles based approach in the NERL would avoid precluding as yet unforeseen energy selling activities from being eligible for an exemption, where exemption may be more appropriate than authorisation. The Commission considers further prescription in the NERR would be appropriate for providing direction to the AER and certainty to industry on the eligibility criteria for exemptions. Placing these in the NERR balances this prescription with flexibility by providing any person the opportunity to request a rule change to amend these factors if they consider it meets the NERO.

Chapter 6 of the MinterEllison report sets out further implementation considerations.

Recommendation 12

Narrow the selling exemption framework by:

- removing the exempt seller and exempt customer factors in the NERL and replacing these with a principles based exemption framework which restricts exemptions to where the cost of authorisation would be high compared to the benefits to consumers and the requirement for regulatory oversight is low
- providing direction to the AER by including the following exemption criteria in the NERR:
  - selling to customers in short term accommodation
  - temporary energy services on the same or adjacent property
  - unmetered residential consumption of electricity
  - selling to related (parent or subsidiary) companies on same property
  - selling in conjunction with or ancillary to provision of infrastructure services
  - selling exclusively to large customers or large corporate entities
  - selling between government agencies on the same property
  - circumstances where the AER considers an exemption meets the NERO.

9 Consumer protections, monitoring and enforcement

This Chapter outlines recommendations for changes to improve consumer protections, monitoring and enforcement in relation to the sale of energy to embedded network customers. The Chapter and recommendations are divided into issues for exempt customers (supplied by an exempt seller) and retail customers (supplied by an authorised retailer) in embedded networks. Information provision is discussed separately at the end as it concerns exempt and retail customers.

9.1 Introduction

As discussed in chapters 7 and 8, where possible, access to competition for embedded network customers should be improved and the regulation of embedded network service providers and exempt sellers should be elevated into the national framework.

In practice, it is unlikely to be possible to deliver effective competition for all customers in legacy embedded networks where there are likely to be on-going disincentives for retailers to actively compete for these customers and barriers to customers going on-market.

Under the proposed framework, most customers in new embedded networks will be retail customers, supplied by an authorised retailer working with a registered embedded network service provider. This will mean consumer protections for most embedded network customers will be more closely aligned with those of standard supply customers. Exempt sellers will be limited to supplying in situations such as temporary accommodation and for infrastructure (See chapter 8). Consumer protection arrangements are of less concern in these situations. However exempt customers will continue to exist in pre-existing embedded networks where an exempt seller is supplying customers. Therefore it will remain important to improve the current regulatory and exemption frameworks where possible.

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. This different circumstance raises a range of retail market issues that require consideration and possible changes to the NERR, and potentially the NERL.

Currently a number of embedded network customers are retail customers, supplied by an authorised retailer, in either on-market or off-market situations. The role of authorised retailers will increase under the proposed framework. Authorised retailers are subject to the NERL and NERR and not the conditions of the AER's retail exemption guideline.

The different scenarios for the supply of electricity to embedded network customers under the current framework and the proposed framework are set out in table 9.1.

Table 9.1 Embedded network supply scenarios

Current regulatory framework				
	Standard Supply	Off-market embedded network customer, supplied by an exempt seller	Off-market embedded network customer, supplied by an authorised retailer*	On-market embedded network customer, supplied by an authorised retailer*
Network services	DNSP	Exempt ENSP	Exempt ENSP	Exempt ENSP
Retail services	Authorised retailer	Exempt seller	Authorised retailer	Authorised retailer
Customer	Standard supply retail customer	Exempt customer	Off-market retail customer	On-market retail customer
Proposed regulatory framework				
	Standard Supply	Off-market embedded network customer, supplied by an exempt seller (in limited circumstances)	Off-market embedded network customer	On-market embedded network customer
Network services	DNSP	Exempt ENSP	Registered ENSP	Registered ENSP
Retail services	Authorised retailer	Exempt seller	Authorised retailer	Authorised retailer
Customer	Standard supply retail customer	Exempt customer	Off-market retail customer	On-market retail customer

* Note: these circumstances would carry over as legacy in the proposed new regulatory framework, though most new embedded networks would not have the ability to be established in this way. It is possible there are, or will be, some examples with an exempt ENSP and an authorised retailer in the current or proposed regulatory framework.

9.2 Improving consumer protections for exempt customers

As discussed in chapter 5 a number of stakeholder submissions to the consultation paper and draft report raised concerns about consumer protections in embedded networks.

Our primary remedy for these issues is to propose changes to the regulatory framework, so that consumer protections for embedded network customers are better aligned with the consumer protections for standard supply customers. The proposed framework would mean most embedded network customers would be retail customers, rather than exempt customers.

There are some issues that can be addressed prior to the changes to the regulatory framework, such as access to independent dispute resolution and improved monitoring and enforcement.

It will also be important that the AER maintains and continues to improve the exemption framework for legacy, and any new, exempt customers. A number of important elements of the exemption framework are discussed below.

9.2.1 Dispute resolution

Authorised retailers and distributors are required to be members of, or subject to, ombudsmen schemes[371] and customers can make a complaint or refer a dispute to their jurisdiction's ombudsman.[372] Ombudsmen services are governed under jurisdictional regulation.[373]

Under the exemption framework, embedded network service providers and exempt sellers have conditions related to providing dispute resolution services,[374] however a number of barriers mean that embedded network customers have less access to energy ombudsmen schemes to help resolve disputes with their energy providers.[375]

The AER and the Australia and New Zealand Energy and Water Ombudsman Network (ANZEWON) are working collaboratively to consider what changes need to be made to the regulation of exempt sellers and embedded network service providers and scheme membership and participation requirements respectively to improve exempt customer access to energy ombudsman schemes, where it is required.[376] Changes to jurisdictional regulation and the funding models of ombudsman schemes may also be necessary.

As the AER noted: [377]

> "Currently, the ombudsman schemes, with the exception of NSW, cannot hear complaints from exempt customers. This is because they preclude membership by exempt entities or explicitly preclude the consideration of complaints by customers of exempt entities. Where access for exempt customers is currently available, the NSW ombudsman is unable to bind

371 NERL, s. 86.

372 NERL, s. 83.

373 For further discussion see: J Benvenuti and C Whiteman, Consumer access to external dispute resolution in a changing energy market, report to Energy and Water Ombudsman (Victoria), Energy & Water Ombudsman NSW, Energy and Water Ombudsman (SA), 24 June 2016.

374 AER, AER (Retail) exempt selling guideline, version 4, March 2016, condition 15 and Electricity network service provider - registration exemption guideline, version 5, December 2016, condition 6.

375 J Benvenuti and C Whiteman, Consumer access to external dispute resolution in a changing energy market, report to Energy and Water Ombudsman (Victoria), Energy & Water Ombudsman NSW, Energy and Water Ombudsman (SA), 24 June 2016.

376 The AER published an issues paper on 13 June 2017: https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/access-to-dispute-resolution-services-for-exempt-customers-june-2017

377 AER, Issues paper: access to dispute resolution services for exempt customers, p. 4.

exempt entities by their decisions because exempt entities are not members of the scheme."

The AER published a draft retail exemption guideline and an accompanying notice of draft instrument on 7 November 2017, which proposed two key changes to improve exempt customers' access to dispute resolution:[378], [379]

- "require exempt sellers that sell energy to residential customers to be members of, or subject to, the relevant energy ombudsman scheme/s where they are able to be accommodated by the relevant ombudsman scheme, and
- "explicitly place obligations on exempt sellers to have in place appropriate complaints and dispute handing processes."

A number of stakeholder submissions to the consultation paper highlighted the importance of providing access to independent dispute resolution for embedded network customers (see Chapter 5).

Draft recommendation

In the draft report, the AEMC recommended the AER, Ombudsmen and jurisdictional governments continue to develop required changes to the retail exemption guideline and state regulations to increase access to independent dispute resolution services for exempt customers.

Stakeholder views on draft recommendation

A number of stakeholders supported the draft recommendation[380].

SACOSS and United Communities submitted that access to ombudsmen schemes should be dealt with as a priority.[381] They also suggested that the AEMC could play a role in bringing relevant parties together and suggested a meeting is held:[382]

> "SACOSS and the signatories submit that a meeting should be held with the AEMC, the AER, the Ombudsmen, consumer organisations, representatives from state governments and industry to resolve all the outstanding issues and ensure access to schemes for vulnerable embedded network customers is secured."

ENA, Origin and Energy Australia noted that fair arrangements for funding are needed so that exempt entities are paying an appropriate share of fees.[383]

The SCCA supported access to Ombudsmen schemes in principle, but thought the work of the AER and Ombudsman should be completed before this was finalised as a

---

378 AER, *Draft AER (Retail) Exempt Selling Guideline*, Version 5, AER, November 2017, Melbourne.

379 AER, *Notice of Draft Instrument: AER (Retail) Exempt Selling Guideline*, Version 5, AER, November 2017, Melbourne, p. 7.

380 Submissions on the draft report: ENA, p. 2; Energy Australia, p. 4; EWOSA, p. 3; EWOV, p.1; PIAC, p. 8; Origin, p. 2; SACOSS and Uniting Communities, p, 7.

381 SACOSS and Uniting Communities, submission on the draft report, p. 7.

382 Ibid, p. 7, 16.

383 Submissions on the draft report: ENA, p. 2; Energy Australia, p. 4; Origin, p. 2.

condition for exemption or a standard consumer protection for embedded network customers.[384] They noted that issues remain on membership, fees, and governance and costs.[385]

EWOV noted that the Victorian Government's review of the General Exemption Order final position is to require retail exemption holders to join a dispute resolution scheme by 1 July 2018.[386, 387] They go on to note that "implementation of this change is likely to be challenging and we expect that the Victorian experience throughout the process will be useful in informing the expansion of Ombudsman jurisdiction in other states."[388]

The Caravan, Camping & Touring Industry and Manufactured Housing Industry Association of NSW Ltd (CCIA) and the Caravan Parks Association of Queensland (CPAQ) did not support the draft recommendation as they viewed embedded network customers in caravan parks and residential land lease communities as having access to appropriate information and dispute resolution through other bodies such as Fair Trading NSW, NSW Civil and Administrative Tribunal (NCAT), the Queensland Residential Tenancies Authority and Queensland Civil and Administrative Tribunal (QCAT).[389]

EWOSA supported the intent of the draft recommendation, but recommended the AER's retail and network exemption guidelines "give precedence to Ombudsman schemes as the primary external dispute resolution providers for all energy customers".[390]

Analysis and final recommendation

The Commission agrees that access to independent dispute resolution is a priority issue to address and welcomes the progress made in the AER's draft retail exemption guideline. We will continue to work with the AER, Ombudsmen and jurisdictions on this issue where appropriate.

The Commission sees the value in a specialised energy dispute resolution service. Bodies such as NCAT and QCAT may not have the energy expertise of energy specific ombudsmen schemes and may not have staff with expertise available to discuss issues with customers over the phone. NCAT and QCAT also charge small fees that must be paid when submitting an application to resolve a dispute.[391] As such, consumers in

384 SCCA, submission on the draft report, p. 5.

385 Ibid, p. 5.

386 EWOV, submission on the draft report, p. 1.

387 Note that the final position paper supports extending "EWOV's jurisdiction to make it available to most customers of embedded network operators and associated exempt sellers". The State of Victoria Department of Environment, Land, Water and Planning, *Review of the Victorian Electricity Licence Exemptions Framework*, Final Position Paper, 28 August 2017, Melbourne, p. 36, 38.

388 EWOV, submission on the draft report, p. 1.

389 Submissions on the draft report: CCIA, pp. 14-15; CPAQ, p. 3.

390 EWOSA, submission on the draft report, p. 3.

391 For example the relevant NCAT fee is currently $49 or $12 for a reduced or concession fee. NCAT, 30 June 2017, NCAT, Sydney, viewed 30 October 2017, http://www.ncat.nsw.gov.au/Pages/apply_to_ncat/fees_and_charges/fees_and_charges.aspx

embedded networks should be able to access energy ombudsmen schemes, as standard supply customers are able to, in most circumstances.

Recommendation 13

That Ombudsmen and jurisdictional governments continue to develop required changes to state instruments to increase access to energy specific, independent dispute resolution services for exempt customers.

9.2.2 Access to concessions

The AER amended its retail exemption guideline in 2016 to increase the level of protections for embedded network customers that are eligible for concessions but have challenges claiming them directly in some jurisdictions.[392] The amendments mandated the claiming of government rebates on behalf of embedded network customers where they cannot claim them themselves.

Some stakeholders[393] raised ongoing concern over the ability of embedded network customers to access concessions.

The AER's view was that it was a matter for jurisdictional bodies to determine how to improve access to concession schemes.[394] We acknowledge a number of jurisdictions are working on these issues.

Draft recommendation

In the draft report, the AEMC recommended jurisdictions consider options for improving awareness of entitlements and access for embedded network customers.

Stakeholder views on draft recommendation

CCIA, Origin, SACOSS and United Communities supported the draft recommendation.[395]

CCIA did not view access to concessions as a problem as embedded network customers in NSW holiday parks and land lease communities can access a range of rebates and concessions, however agreed with the recommendation in relation to other embedded network types.[396]

ENA also supported "making full and complete information on any available concessional payments available to embedded networks customers at the commencement of their tenancy/residency".[397]They noted that is required under the AER's retail exemption guideline and that the AER may need to consider how compliance is enforced (see also discussion under Section 9.2.5).

392 AER, submission on the consultation paper, pp. 20-21

393 For example, Active Utilities, Submission on the consultation paper, p. 5.

394 AER, submission on the consultation paper, pp. 20-21.

395 Submissions on the draft report: CCIA, p. 16; Origin, p. 2; SACOSS, p. 17.

396 CCIA, submission on the draft report, p. 16.

397 ENA, submission on the draft report, p. 2.

Final recommendation

The AEMC maintains its recommendation expressed in the draft report.

Recommendation 14

That jurisdictions consider options for improving awareness of entitlements and access for embedded network customers.

9.2.3 Price regulation

Price regulation is provided for exempt customers though the NERR and the AER's retail exemption guideline. The NERR specifies that where the AER determines a price condition is appropriate, the AER must ensure that exempt customers are charged no more than the standing offer price of the local area retailer.[398] The retail exemption guideline makes it a core condition of exemption that tariffs are not higher than this standing offer.[399]

In submissions on our consultation paper some stakeholders suggested lowering the price cap.[400]

The Commission's view expressed in the draft report was that the existing price cap is appropriate as a safety net for exempt sellers, including during the transition to the new proposed framework.

In submissions to the draft report, the CCIA agreed that the existing price cap is "an appropriate safety net for exempt customers" and noted that embedded network customers in NSW holiday parks and land lease communities were also protected by other caps under state law.[401] The Caravan Parks Association of Queensland also noted the "strong consumer protections in relation to the on-charging of utilities" in Queensland.[402]

Given the Commission's view in the draft report, SACOSS and United Communities submitted that consumer protection changes "should be pursued by the AEMC as a suite of changes to ensure customers of embedded networks accessing retail offers are adequately protected".[403]

The Commission notes that the Victorian Government's review of the General Exemption Order final position was to task the Victorian Essential Services

398 NERR, rule 152(4).

399 AER, AER (Retail) exempt selling guideline, version 4, March 2016, condition 7.

400 Submissions on the consultation paper: ECA, p.10; PIAC, p.2.

401 CCIA, Submission on the draft report, p. 16.

402 Caravan Parks Association of Queensland, submission on the draft report, pp.1-2.

403 SACOSS, submission on the draft report, p. 17.

Commission "with formulating a new cap benchmark based on commercial market data." [404]

The Commission's view is that it is better to focus on improving access to competition and other consumer protections than reforming price regulation. The NERR allows the AER discretion to lower the cap through its retail exemption guideline if it considers this appropriate.

9.2.4 Retailer of last resort

The NERL contains provisions for a Retailer of Last Resort (RoLR) scheme. The RoLR scheme is designed to ensure that, in the event of a retailer failing (a RoLR event), customers continue to receive electricity and/or gas supply.

The RoLR scheme involves relatively complex arrangements including a cost recovery scheme for a RoLR, involving a pass through of costs through the relevant distribution determination.

For exempt customers, the AER's retail exemption guideline makes little provision for the eventuality of exempt seller failure, though exempt persons are required to notify exempt customers and the AER immediately "if they are (or expect to be) disconnected, or there is any likelihood that they will be unable to continue selling energy".[405]

Draft position

The Commission's view in the draft report was that the cost of applying a RoLR scheme for exempt customers was likely to out-weigh the benefits. In particular:

- For standard supply customers, the retailer that becomes the RoLR is generally able to supply the customers of the failed retailer under the RoLR's standard terms and conditions and published price. However, the RoLR scheme only addresses the retail supply of electricity and gas and does not address the provision of network services, and accordingly will be an incomplete solution for embedded network customers. Despite the changes proposed in the draft report, some exempt customers are likely to have more bespoke supply arrangements that will be more difficult for the RoLR to cater for.
- The RoLR scheme has two purposes: it protects customers by moving them to a new retailer when their retailer fails, and it protects generators in the NEM by reducing their exposure to non-payment by retailers for energy they sell into the wholesale market. Where an on-seller is supplying embedded network customers, they are not interacting with the wholesale market so a RoLR scheme is not required to reduce generators' risks of non-payment.

404 The State of Victoria Department of Environment, Land, Water and Planning, *Review of the Victorian Electricity Licence Exemptions Framework*, Final Position Paper, 28 August 2017, Melbourne, p. 38.

405 AER, AER (Retail) exempt selling guideline, version 4, March 2016, condition 17, p.39.

Submission on draft report

The CCIA agreed that a RoLR scheme was unlikely to work for exempt customers.[406] They noted that in holiday parks and land lease communities the exempt seller and exempt ENSP is often the owner/operator and that in the event of failure permanent residents "will have bigger issues of concern".[407] They noted that NSW legislation "contains provisions regarding the appointment of administrators, receivers and managers to protect the well-being and financial security of the residents of the community".[408] The CCIA also requested clarity on who would be responsible for arranging a new retailer if an authorised on-selling retailer failed where the authorised on-seller and/or registered ENSP was the owner/operator.[409]

The AER did not consider it necessary for exempt sellers (or authorised on-selling retailers) to participate in the RoLR scheme, but recommended consideration be given to managing exempt seller failure.[410]They noted they currently require parties seeking retailer authorisation to sell to embedded network customers "to have back-up arrangements in the event of their failure, for example, for energy supply arrangements to revert to the relevant bodies corporate or landlords."[411]

The ENA suggested that the AEMC consider whether an embedded network manager of last resort is needed.[412]

Flow argued that the RoLR scheme should apply to embedded networks so that "the local incumbent retailer or private sector [exempt embedded network] EEN service provider steps in to ensure continuity of supply to customers".[413] They also submitted that the step-in RoLR should make payments to any secured financiers of the embedded network infrastructure.[414]

Analysis and final position

The Commission continues to hold the view that the cost of applying a RoLR scheme for exempt customers is likely to out-weigh the benefits. There are notification requirements under the AER's retail exemption guideline and the AER can consider changes to these requirements as needed.

As the exempt seller and the exempt ENSP are often the same party a RoLR scheme is unlikely to be effective as a RoLR would be unlikely to be able to perform the exempt ENSP functions. In this case, it is likely to fall to an owners corporation or similar body to arrange a new exempt seller and exempt ENSP, or arrange for the embedded network customers to become standard supply customers. We do not see the RoLR

406 CCIA, submission to the draft report, p. 16.

407 Ibid, p. 16.

408 Ibid, p. 16.

409 CCIA, submission on the draft report, p. 19.

410 AER, submission on the draft report, p. 6.

411 Ibid.

412 ENA, submission on the draft report, p. 3.

413 Flow, submission on the draft report, p. 13.

414 Ibid

scheme as an appropriate mechanism to protect financiers of embedded network infrastructure.

9.2.5 Monitoring and enforcement

Authorised retailers and registered network service providers are required to submit information and data on performance to the AER in the manner prescribed in the AER's Performance Reporting Procedures and Guidelines.[415] This includes information on retail market activity, hardship programs and distribution service standards.

Authorised retailers and registered LNSPs are also required to submit information and data on compliance to the AER in the manner prescribed in the AER's Compliance Procedures and Guidelines.[416]

Exempt embedded network service providers and exempt sellers do not have these requirements.

A breach of a condition under a retail exemption is a breach of the NERL, and is a civil penalty provision.[417]

A breach of a condition under a network exemption is not itself a civil penalty provision under the NEL.[418] The AER has the power, in certain circumstances, to revoke exemptions.

Submissions on the consultation paper

A number of stakeholders raised concerns over insufficient AER powers and resources to monitor and enforce exemption conditions. [419], [420]

The AER noted a lack of transparency of embedded network activities with complaints being their main source of information on potential breaches of exemption conditions.[421] They suggest the NERL should specify a role for the AER to monitor exempt seller behaviour and that such a role should include flexibility so that the AER can examine particular sellers as required.[422]

The AER noted that the current penalty amount for a breach of a retail exemption condition of $20,000 is regardless of the size or nature of the exempt seller and

415 NERL, Part 12, Division 2.

416 NERL, s. 274.

417 NERL, s.112. Under sub-section 112(3) of the NERL, the AER may deal with a breach of a condition imposed under section 112 as if it were a breach of the NERR.

418 Section 2.4.8 of the network exemption guideline provides that an exemption can be revoked if there is a breach of any condition of the exemption. Section 11(2) of the NEL makes it a civil penalty provision to own, control or operate a distribution system if not registered or if not exempted. A civil penalty would only apply if the embedded network continued operating following the revocation of an exemption.

419 SACOSS et al, submission on the consultation paper, p. 16.

420 AER, submission on the consultation paper, p. 11.

421 AER, submission on the consultation paper, p. 11.

422 Ibid.

recommendedthat the penalty amounts for infringement notices be reviewed. [423] We note that enforcement regimes were reviewed in 2013[424] and that proposed policy positions on penalty levels were consulted on in 2016,[425] with further action on these still required.

The AER also noted that they have limited means of enforcing breaches of network exemption conditions:[426]

> "Currently, the only way of dealing with breaches of network exemption conditions is for us to seek declaratory relief from the courts. We have not done so to date given the reluctance of customers to act as witnesses. Customer witnesses are essential to us being able to successfully bring an action against an embedded network operator for failing to comply with a condition. Another option is to revoke the exemption, which is not preferred as it would make energy sales in the embedded network unlawful, and may leave occupants without supply."

Draft recommendations

In the draft report, we noted our proposed framework will address monitoring and enforcement issues for new embedded networks by requiring on-sellers to be authorised retailers and ENSPs to be registered participants in most circumstances. This should allow the AER to have the same monitoring and enforcement powers it currently has over registered DNSPs and authorised retailers, though authorised on-selling retailers and registered ENSPs may have fewer obligations and reporting requirements.

Our recommendations covered additional changes for legacy exempt customers and new exempt customers.

The AEMC supported the AER's recommendations for a specific AER monitoring role, a review of penalty amounts for infringement notices and improved enforcement options for network exemption breaches, and also made further recommendations. The draft recommendations were:

- To facilitate greater transparency of activities within embedded networks related to exempt customers, the NERL should specify a role for the AER to monitor embedded network service provider and exempt selling behaviour. Such a role should include flexibility so that the AER can examine the conduct of particular sellers as required. In the interim the AER should consider how monitoring can be increased under its current functions and powers. The AER should also consider whether the reporting requirements under the exemption framework should be increased.

---

423 AER, submission on the consultation paper, p.11.

424 NERA Economic Consulting and Allens, Review of Enforcement Regimes under the National Energy Laws, report prepared for the Standing Council on Energy and Resources, November 2013.

425 COAG Energy Council Energy Working Group, Review of Enforcement Regimes under the National Energy Laws, proposed policy positions for consultation, March 2016, Canberra.

426 AER, submission on the consultation paper, p. 11.

- Review the penalty amounts for infringement notices and act upon previous COAG Energy Council work in this area
- Enforcement options for network exemption breaches, including breaches of conditions, should be more closely aligned with the enforcement powers for retail exemption breaches.

Submissions on the draft report

The CCIA submitted that they would support streamlining monitoring and enforcement provisions, but oppose changes that would increase costs for holiday parks and residential land lease communities.[427] They suggested non-regulatory options may be appropriate to help deliver consumer protections such as providing resources and education.[428]

AGL, Energy Australia, SACOSS and Uniting Communities supported the recommendation for a specific monitoring role in the NERL for the AER.[429]Energy Australia noted this "would provide an evidence base for any subsequent regulation where the benefits more clearly outweigh the costs."[430] SACOSS and Uniting Communities submitted that prior to this change the AER should use its current functions and powers to increase reporting and monitoring.[431]

SACOSS and United Communities agree with the draft recommendations to review penalty amounts for infringement notices and enforcement options for network exemption breaches, and suggested the AEMC look to address these issues prior to Law and Rule changes.[432]

Origin agreed that "appropriate monitoring and enforcement of embedded networks will produce more reasonable customer outcomes".[433]Origin also supported the recommendation to better align enforcement options for network exemption breaches to improve the level of consistency.[434]

The AER noted that improved transparency and accountability was a particular benefit of the AEMC's proposed framework.[435] They noted the importance of sufficient flexibility to determine compliance and enforcement responses given the diversity of embedded network operators and sellers.[436] They considered there is benefit in extending their powers to compel information and documents, to include the power to compel the examination of persons and are pursing this separately to this review.[437]

---

427 CCIA, submission on the draft report, pp. 16-17.

428 Ibid.

429 Submissions on the draft report; AGL, p. 4, Energy Australia, p. 3, SACOSS p. 5.

430 Energy Australia, submission on the draft report, p. 3.

431 SACOSS, submission on the draft report, p. 5.

432 SACOSS, submission on the draft report, pp. 5-6.

433 Origin, submission on the draft report, p. 2.

434 Ibid.

435 AER, submission on the draft report, pp. 4-5.

436 Ibid

437 Ibid

They suggested that penalties should reflect the Australian Consumer Law and provide different penalty amounts for individuals and corporations and vary according to the type of organisation and its turnover.[438]

Analysis and final recommendations

The AEMC maintains the recommendations made in the draft report.

We note the concern of CCIA regarding costs. Given the large numbers and diversity of embedded networks the AER should have the ability to design monitoring and enforcement programs that do not impose a large regulatory burden on complying exempt sellers and are cost effective for the AER to implement. The AER should have the flexibility to consider education based approaches where appropriate.

We also note the emphasis placed on early action to increase monitoring and reporting by SACOSS and Uniting Communities and agree this should be a priority for implementation, however it does not appear there are options to address penalty amounts and network enforcement options prior to law and rule changes.

The report from MinterEllison published with this review considers the AER's ability to monitor and enforce the requirements to hold network exemptions under the NEL and retail exemptions under the NERL and breaches of exemption conditions.[439] They find that enabling greater monitoring and enforcement of network exemption conditions could be achieved through changes to the NEL or NER, though a change to the NEL would be more consistent with the approach under the NERL. They also found that enabling greater monitoring and enforcement of retail exemption conditions could be achieved through changes to the NERR or the AER's exemption guidelines.

Recommendation 15

- **To facilitate greater transparency of activities within embedded networks related to exempt customers, the NERL should specify a role for the AER to monitor embedded network service provider and exempt selling behaviour. Such a role should include flexibility so that the AER can examine the conduct of particular sellers as required.**
- **In the interim the AER should consider how monitoring can be increased under its current functions and powers.**
- **The COAG Energy Council should review the penalty amounts for infringement notices and act upon its previous work in this area.**
- **Amend the NEL so that enforcement options for network exemption breaches, including breaches of conditions, are more closely aligned with the enforcement powers for retail exemption breaches.**

438 Ibid

439 See sections 5.3 and 6.5

9.3 Concepts that raise consumer protection issues for embedded network customers supplied by authorised retailers

As discussed above, authorised retailers supplying embedded network customers raises a range of retail market issues that require consideration and possible changes to the NERR, and potentially the NERL.

The concepts that give rise to these issues are discussed below. They are also discussed in the accompanying report from MinterEllison. Further specific consumer protections for retail customers are discussed in the following section.

9.3.1 Designated retailer concept

The concept of a designated retailer underpins the retail customer relationship for standard supply customers. Section 2 of the NERL defines a designated retailer as either the financially responsible retailer (for existing connections) or where there is no existing connection, the local area retailer.

The obligations of a designated retailer relate to the obligation to sell energy at standing offer prices under the standard retail contract.[440] As a 'connection' for the purpose of the NERL only relates to registered distribution systems, there is no recognised designated retailer for embedded network customers.

Further, s. 22(5) of the NERL states that a designated retailer is not obliged to make a standing offer to a small customer if the customer's premises are not connected to the registered distribution system. The consumer protections built into the standing offer do not extend to embedded network customers. Only market offers are potentially available to embedded network customers (where there are no jurisdictional impediments preventing access).

The absence of a standing offer means there is no obligation which guarantees supply to an embedded network customer by any party.

This gap is currently addressed by the AER through its retail exemption guideline.[441]

9.3.2 Shared customer concept

The NERL and NERR impose a range of obligations on authorised retailers and distributors on the basis that they 'share a customer'. This shared customer concept is a key feature of the retailer-distributor-customer tripartite relationship that underpins much of the NERL and NERR. The nature of the electricity sale and supply relationship is such that it is not always clear that the obligation should be with one party, and instead the obligations need to be shared.

Shared obligations ensure that the authorised retailer and distributor are required to work together in the delivery of electricity, and to resolve customer issues and complaints thereby avoiding regulatory gaps in the delivery of electricity services. The NERR contain provisions requiring both authorised retailers and distributors to ensure that the customer does not suffer as a result of the delineation of responsibilities. The

440 NERL, s.22(1).

441 AER, AER (Retail) Exempt Selling Guideline, version 4, March 2016, Condition 1, p.32.

same provisions do not exist between exempt network service providers and authorised retailers.

There is no equivalent shared customer concept in the NERL or NERR between authorised retailers, distributors and embedded network services providers. The effect is that complaints and disputes may not be efficiently resolved and the customer may be subject to consumer protections that do not align with the consumer protections afforded to other residential customers.

There are a number of consumer protections that this concept relates to:

- obligation on authorised retailers and distributors to give reasonable assistance to each other in relation to shared customers (r. 94 NERR)
- obligation on authorised retailers and distributors to share information regarding shared customers (r. 95 NERR)
- obligation to provide contact details to each other (r. 97 NERR)
- establishment of respective hotline numbers for customers (r. 98 NERR)
- information on planned and unplanned interruptions (rr. 99 – 100 NERR)
- mutual obligations with respect to complaints and enquiries (rr.101 – 102 NERR)
- de-energisation and re-energisation of shared customer's premises (rr. 103 – 106 NERR)
- billing and payment rules under Chapter 6B of the NER.

Chapter 6B of the NER contains the distributor and retailer obligations in relation to network charges of shared customers as well as when direct customer billing and electricity only contracts are permitted. The equivalent is missing and arguably fundamental in the embedded network context.

9.3.3 Extension of the tripartite relationship to exempt network service providers

The NERL and NERR contemplate a tripartite relationship between a customer, the retailer and the distributor. There is currently no flexibility in this tripartite relationship to incorporate embedded network service providers and on-sellers. The nature of embedded networks suggests that in some cases, it may not be appropriate to simply substitute an exempt embedded network service provider for a distributor as key information and processes may not be able to be properly administered.

For the framework to operate effectively in an embedded network context the relationship needs to be extended to include obligations regarding the relationship between the embedded network service provider, the retailer and the local network service provider to ensure that all relevant parties are involved where necessary and appropriate.

Relevant NERL and NERR provisions to consider include:

- customer classification by retailers and distributors (Part 1, Division 3, NERR)
- detailed obligations and requirements for both retailers and distributors in the disconnection and re-energisation of small customers (Part 6, NERR)

- retailers' and distributors' obligations in respect to the registration of premises with life support equipment (Part 7, NERR).

9.3.4 Distributor obligations to customers

Under the NERL and NERR a distributor has a number of important obligations to customers (see chapter 8). Part 4 of the NERR affords customers certain consumer protections in relation to their relationship with distributors. These include:

- distributor service standards and guaranteed service level schemes (r. 84)
- fault reporting and correction (r. 85)
- provision of electricity information (r. 86)
- notice of interruptions (rr. 88 – 91).

There is no direct relationship between an exempt network service provider and a customer currently contemplated in the NERR, instead this is provided through network exemption conditions. As a monopoly provider of embedded network services with the embedded network, the embedded network service provider has similar characteristics and attributes to a distributor and customers should expect some protections. From a consumer protection perspective, there is arguably no difference between a customer of a residential embedded network and a customer of a distributor.

The safety and reliability of embedded networks is clearly an important matter for customers. This is of increased relevance where embedded networks contain large amounts of generation and energy storage. However, unlike DNSPs and TNSPs, embedded networks are not subject to economic regulation under chapter 6 of the NER and so are not subject to service target performance incentive schemes. The ability of embedded networks to convey electricity safely and reliably to end consumers is therefore reliant on the technical capability of the embedded networks and their operators. However, under the Australian Energy Markets Agreement[442], technical and safety authorisations are explicitly excluded from the national distribution and retail regulatory framework and so fall outside the scope of the NEL and NER. This issue will therefore need to be addressed by individual jurisdictions.

Connection services, such as obligations relating to disconnection, notice of planned interruptions and life support, are however captured by the national framework.

For example, lack of proper notice for planned interruptions has been an ongoing compliance and enforcement focus for the AER with respect to distributors. The AER has less ability to monitor and enforce these requirements within embedded networks. This issue is currently a problem in the NERL and NERR that is relevant for all embedded network customers, regardless of whether they are on-market or off-market or supplied by an authorised retailer or an exempt seller.

Our proposed framework proposes imposing a sub-set of distributor obligations on embedded network service providers through a new category of registered participant

442 COAG Energy Council, Australian Energy Markets Agreement, 9 December 2013, Annexure 2.

(registered embedded network service provider, see chapter 8). Improving monitoring and enforcement was discussed above.

9.4 Retail customers in embedded networks

This section discusses extending specific consumer protections to retail customers in embedded networks and potential changes to the NERL and NERR.

This section deals with only a sub-set of important consumer protections. A significant re-write of the NERR and the NERL is needed to deal with all the issues mentioned in section 9.3.

9.4.1 Standing offers and the obligations to supply

From a consumer choice or price perspective the lack of standing offers for embedded network customers (see above) is not necessarily a primary concern. In NSW, Victoria and South Australia less than 23 per cent of all retail customers are supplied on standing offers.[443]The conditions of these are similar to market offers in many respects. The average standing offer can be as much as $507 more annually than the best market offer, and standing offers have been increasing more relative to market offers over time.[444] Standing offer prices are not regulated in jurisdictions with effective competition. Standing offer prices are regulated in Regional Queensland, ACT and Tasmania, where effective competition is yet to emerge.

The obligation to offer/supply is, however, an important consumer protection.

Exempt sellers currently have this obligation as an exemption condition for the embedded networks they operate in.[445]

Draft recommendations

The obligation to offer/supply does not apply to authorised retailers supplying to customers within an embedded network. This is a concern under the current framework as increasingly embedded network customers are supplied by authorised retailers. Under our proposed framework most new embedded networks would not have an exempt seller and there may be no party with an obligation to offer/supply to embedded network customers.

To address this concern the NERL and NERR could be amended to extend the requirement on designated retailers (i.e. local area retailer in most circumstances) to provide a standing offer to include embedded network customers.

In the draft report, we recommend further consideration be given to 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.

443 AEMC, 2017 AEMC retail energy competition review, 25 July 2017, Sydney, p.104.

444 AEMC, 2017 AEMC Retail Energy Competition Review, 25 July 2017, Sydney, p.172.

445 AER, AER (Retail) Exempt Selling Guideline, version 4, March 2016, Condition 1, p.32.

Submissions on draft report

The CCIA did not oppose extending the requirement on designated retailers to provide standing offers.[446] They viewed this as potentially helping to resolve issues where embedded network customers went on-market and later wanted to return to the embedded network but faced practical barriers, however they thought further consultation on the significance of this issue and appropriate solutions was needed.[447]

ERM Power did not see extending the designated retailer requirements as an appropriate solution, as they were concerned the retailer to a commercial customer at a parent connection point would become the designated retailer for the residential child meters.[448] As ERM Power has chosen not to serve residential customers they would not be in position to do this and suggest the local area retailer would be better placed to take on this responsibility.[449]

Analysis and final recommendation

The report from MinterEllison published with this review considers how to extend the designated retailer requirements.[450]

Following stakeholder feedback and further consideration, the Commission's view is that alternatives to providing an obligation to offer/supply are appropriate. Designated retailers may have difficulties in providing standing offers to off-market embedded network customers and it could be viewed as unfair to require designated retailers to overcome these when they did not play a role in establishing the embedded network.

Under our proposed framework, for new embedded networks the obligation to offer to supply could be placed on authorised on-selling retailers for all customers within the embedded networks they operate in. However, in order to protect retail customers in embedded networks already being supplied by an authorised retailer as well, it may be more effective for amendments to the NERR to be considered that requires all authorised retailers supplying off-market embedded network customers to have an obligation to offer/supply to all customers within an embedded network they are operating in. It is not recommended that this would capture an authorised retailer that is only supplying to the parent connection point.

Recommendation 16

The NERR should be amended to require all retailers supplying existing, and new, off-market embedded network customers to offer to supply to all customers within an embedded network they are operating in.

446 CCIA, submission on the consultation paper, pp. 18-19.

447 Ibid.

448 ERM Power, submission on the draft report, pp. 1-2.

449 Ibid

450 See chapter 9.

9.4.2 Vulnerable customer arrangements

Authorised retailers have a number of obligations regarding vulnerable customer arrangements for example, having a hardship policy approved by the AER.

Under the current framework, the AER's retail exemption guideline requires exempt sellers to offer flexible energy payment options to embedded network customers who identify themselves as being in financial difficulty. The AER has sought to align exemption conditions with the requirements of the NERL and NERR while considering the nature of embedded network operations and customer needs.

A number of stakeholders raised concerns about vulnerable customer arrangements such as hardship policies and payment plans, as well as more general concerns about the experiences of vulnerable customers in embedded network operations.[451]

Under our proposed framework, most new embedded networks customers would have an authorised retailer and vulnerable customer arrangements would be regulated under the NERL and NERR. This will allow embedded network customer protections to be better aligned with those of standard supply customers.

In the draft report we noted that vulnerable customer arrangements are an important protection in many different types of embedded networks. We also expressed the view that the AER should have some flexibility in the authorisation of on-selling retailers to allow vulnerable customer arrangements to be appropriate for the embedded network supply situation.

The CCIA agreed that the AER should have some flexibility and that these obligations should not override any rights that on-selling retailers have under other legislation (e.g. for payment of rent).[452]

SACOSS and Uniting Communities were concerned that protections for vulnerable customers provided by an authorised on-selling retailer may be varied by the AER and submitted that the AEMC should be as prescriptive as possible and provide for only limited discretion.[453]

We note that authorised retailers that are supplying embedded networks customers (e.g. WINconnect) have had hardship policies approved by the AER.

We do not propose changes to the minimum requirements for hardship policies in the NERL[454] at this stage. We note that there is some flexibility in the current process and variation in retailer's hardship policies.

9.4.3 Price regulations

The price conditions for exempt customers (see Section 9.2.3) do not apply to customers in embedded networks supplied by an authorised retailer.

451 For example, see SACOSS et al, submission on the consultation paper.

452 CCIA, submission on draft report, p. 18.

453 SACOSS, submission on the draft report, pp. 8-9.

454 NERL, s. 44

Customers that have gone on-market have demonstrated they have a choice of retailers and price regulation is not appropriate.

However, off-market embedded network customers supplied by an on-selling authorised retailer may not have access to competition (though this should be improved under the AEMC's recommendations set out in chapter 7).

In the draft report, we recommended consideration of extending the standing offer price cap for exempt customers to cover off-market retail customers in embedded networks as well. We noted this would need to be considered in parallel with the issues discussed in Section 9.4.1 and that this could be applied by the AER under the more flexible retailer authorisation process.

The CCIA did not oppose the draft recommendation, though did not think it would have an impact on their industry,[455] likely due to other price regulation.

Origin supported the standing offer price cap in principle but noted it was likely that embedded network offers were much better and that "the price cap should ensure that the customer does not pay more than is necessary".[456]

The Commission is aware of at least one case where embedded network customers were being charged more than standing offer rates (see Section 5.1.3). Our view remains that the standing offer price cap is appropriate as a safety net and as issues remain with access to competition it would be appropriate to extend the price cap to all off-market embedded network customers. This should include existing retail customers in embedded networks.

Recommendation 17

Amend the NERR to require all retailers supplying existing, and new, off-market embedded network customers to charge these customers no more than the standing offer price of the local area retailer.

9.4.4 De-energisation and re-energisation

The NERR provide for how premises can be de-energised (disconnected). An authorised retailer is prohibited from arranging de-energisation of a customer's premises except in accordance with Division 2 of Part 6 of the NERR. This division applies to standard and market retail contracts and is premised on the basis that the retailer arranges disconnection with a distributor. However, it is the operator of the embedded network that will be responsible for disconnection.

Division 4 of Part 6 of the NERR relates to re-energisation. It, like de-energisation, is premised on the basis that the retailer arranges re-energisation with a distributor. However, it is the operator of the embedded network that will be responsible for re-energisation.

These rules are classified as civil penalty provisions.

455 CCIA, submission on the draft report, p. 18.

456 Origin, submission on the draft report, p. 3.

Under the exemption framework, conditions for de-energisation and re-energisation are set out in the AER's retail exemption guideline.

For retail customers in an embedded network, the NERR regarding de-energisation and re-energisation will not function as intended. Addressing this will involve some relatively complex changes to extend the tripartite relationship to cover and provide roles for embedded network service providers.

In the draft report, the AEMC recommends the NERR be amended to align the de-energisation and re-energisation rules for retail customers in embedded networks with standard supply customers.

Origin agreed with the draft recommendation.[457] The CCIA noted the complex relationships that can exist between embedded network service providers and their customers and requested that "consideration also be given to requirements for authorised retailers and registered embedded network service providers to share information during the lead up to de-energisation, which will also involve consideration of privacy principles."[458]

The report from MinterEllison published with this review finds that the draft recommendation could be implements by amendments to Part 6 of the NERR. [459]

The Commission maintains its draft recommendation.

Recommendation 18

Amend the NERR to align the de-energisation and re-energisation rules for retail customers in embedded networks with standard supply customers.

9.4.5 Life support equipment

The NERR provide for retailer and distributor obligations in relation to life support equipment.[460] Many of these obligations require notification to a distributor. However, it is the embedded network service provider that has similar responsibilities to that of a distributor in relation to life support equipment.

The life support rules apply to any standard or market retail contract and are civil penalty provisions.

Under the exemption framework, conditions for life support customers are set out in the AER's retail and network exemption guidelines.

For retail customers in an embedded network, requiring life support equipment for their premises, the Retail Rules regarding life support equipment will not function as intended. Addressing this will involve changes to extend the tripartite relationship to cover and provide roles for registered embedded network service providers.

457 Origin, submission on the draft report, p. 3.

458 CCIA, submission on the draft report, p. 19.

459 See chapter 9.

460 NERR, Part 7.

In the draft report, the AEMC recommended the NERR be amended to align the life support rules for retail customers in embedded networks with standard supply customers.

Submission on the draft report

A number of submissions on the draft report noted the importance of life support protections as a minimum consumer protection (see discussion in Chapter 8).[461] Origin agreed with the recommendation.[462]

Energy Queensland submitted that they supported:[463]

> "amendments which will see the same regulatory obligations surrounding life support, planned interruption notification and explicit informed consent applied to the owners and operators of embedded networks as to network businesses in the national electricity market. However, Energy Queensland notes that further work is required to ascertain the full cost of applying these obligations, particularly to small embedded network operators, and suggests that a more detailed cost benefit analysis is undertaken."

Energy Queensland and CCIA both noted the importance of improving information flow, including regarding life support customers, between ENSPs, distributors and retailers.[464]

Flow recommended that some rules need to be more detailed, "including gate meter retailers (FRMPs) to be obliged to comply with child meter consumer protections such as life support and concessions".[465]

Analysis and final recommendation

We agree that it is crucial that information be appropriately shared regarding life support customers. The MinterEllison report published with this review considers (see Chapter 9) the NERR can be amended such that life support customers in embedded networks have similar protections to standard supply life support customers.

Recommendation 19

Amend the NERR to align the life support rules for retail customers in embedded networks with standard supply customers.

461 See for example, Submissions on the draft report: AGL, p.4; CCIA, p. 11; CPAQ, p. 3; Energy Queensland, p. 4.

462 Origin, submission on the draft report, p. 3.

463 Energy Queensland, submission on the draft report, p. 2.

464 Submissions on the draft report: Energy Queensland, p. 3; CCIA, p. 19.

465 Flow, submission on the draft report, p. 13.

9.4.6 Retailer of last resort

The AER is required to appoint and register a default RoLR for each connection point (in the case of electricity).[466] This means that embedded network customers that are supplied by a market retailer to a child connection point (i.e. on-market customers) are protected by the RoLR scheme. However embedded network customers that are supplied by an authorised retailer as off-market customers are not protected by the RoLR scheme.

Under the NERL the contractual arrangements for small customers and the relevant designated RoLR are the terms and conditions of the designated RoLR's standard retail contract.[467] The prices that are applicable are the relevant designated RoLR's standing offer prices.[468] That is, the current RoLR arrangements are premised on the basis of the standard retail contract and standing offer framework set out in the NERL. As set out in sections 9.3.1 there are gaps in the designated retailer framework for embedded network customers which may need to be addressed.

Draft position

Under the proposed framework most new embedded network customers will be customers of authorised retailers and many will be off-market retail customers.

In the draft report the AEMC considered that for off-market retail customers the RoLR scheme may be less effective. As discussed in Section 9.2.4 the authorised retailer may also be the ENSP and a RoLR would likely not be able to take on the ENSP functions.

Given the detailed arrangements required to establish RoLR arrangements it may not be practical to extend the RoLR scheme to a large number of on-selling authorised retailers and embedded networks. For similar reasons as discussed in Section 9.2.4 in relation to exempt customers in embedded networks, we considered that the costs of extending the RoLR scheme to off-market retail customers in embedded networks may outweigh the benefits.

We invited stakeholder views on this issue. Relevant comments are noted in Section 9.2.4.

Analysis and final recommendation

RoLR is an appropriate protection for on-market customers in embedded networks as they are similar to other standard supply customers in the NEM. There may be some difficulty for the RoLR to provide a standard retail offer to an on-market customer in an embedded network, however our recommendations on the network tariffs that are paid to ENSPs (see Chapter 7) may help resolve this.

---

466 NERL s. 125(1)(a). s. 122 of the NERL provides that the meaning of 'connection point' for the purposes of Part 6 of the NERL has the same meaning as it has in the NER. The NER definition of 'connection point' will be amended from 1 December 2017 as a result of the Embedded Networks Rule Change.

467 NERL, s. 145(3).

468 NERL, s. 145(4).

For off-market retail customers in embedded networks the AEMC continues to hold the view the RoLR scheme would be less effective and impractical for reasons similar to those discussed in Section 9.2.4.

9.5 Information provision

Clear information is an important enabler of an effectively competitive energy market and is important for customers when either entering an embedded network, considering moving to an on-market retailer or considering converting their property to an embedded network.

Information provision should be improved for both exempt and retail customers.

9.5.1 Entering an embedded network

Clear information may assist consumers in making decisions about entering an embedded network, particularly where there are lesser consumer protections or barriers to embedded network customers accessing retail market offers.

Authorised retailers are required to provide information to customers including on costs, consumer protections and dispute resolution.[469] Under the AER's retail exemption guideline, an exempt seller must provide information to embedded network customers at commencement of supply including on any right to choose another retailer (under state or territory laws) and their consumer protections.[470]

The entry by the customer into a market retail contract with an authorised retailer is a transaction that needs explicit informed consent.[471] This is not required for the sale of energy to exempt customers by exempt sellers.

Under the proposed framework, most new embedded network customers will be supplied by an authorised retailer, which will allow information requirements for embedded networks to be better aligned with those of standard supply customers.

However, additional information is needed on entry to an embedded network given the different nature of supply and risks when compared to standard supply customers.

When customers are looking to purchase or lease a property the energy arrangements may not be a sizeable issue compared to the many factors influencing the overall decision. For example, a customer may not understand or be happy with the energy arrangements but still make a decision to purchase or lease a property for other reasons. Improving access to competition for embedded network customers provides an important protection, as the customer can later choose to go on-market if they are unhappy.

Regardless, jurisdictional governments should also 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.

469 NERR, rule 57 and 64.

470 AER, AER (Retail) exempt selling guideline, version 4, March 2016, Core condition 2, p. 32.

471 NERL, s. 38.

Draft recommendations

In the draft report we recommended:

- 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. The AER should update the exemption guidelines to reflect that change
- 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.

Submissions on the draft report

The AER supported the recommendations.[472]

Origin agreed with the recommendation to require authorised retailers to provide additional information and noted they currently obtain explicit informed consent where they are an embedded network operator.[473] Origin did not support jurisdictional governments considering further information provision, arguing:[474]

> "We believe that if customers are aware they are leasing or purchasing on an embedded network then that is sufficient. The commercial benefits and costs are up to developers. It may stymie more innovative offers being developed that combines a range of price and non-price options (such as sustainability which customers may be willing to pay more for)."

The SCCA also did not support jurisdictional governments considering further information provision as they see current regulations to be sufficient.[475]

The CCIA thought there was sufficient information provision at purchase or lease in there industry through state based legislation, and noted that the information provision requirements of the AER's retail exemption guidelines also apply at commencement of supply.[476]

Analysis and final recommendations

The AEMC maintains its recommendations from the draft report, though the wording has been updated to more accurately reflect the policy intent.

We note that stakeholders have argued that current jurisdictional regulation is sufficient to disclose the benefits and risks of embedded networks, however we are aware of cases where these costs, benefits and risks appear to be poorly understood (see Chapter 5), including where apartments are purchased 'off-the-plan'. It appears there is room to improve information disclosure prior to purchase or lease, and that

472 AER, submission on the draft report, p. 6.

473 Origin, submission on the draft report, p. 3.

474 Ibid.

475 SCCA, submission on the draft report, p. 6.

476 CCIA, submission on the draft report, p. 19.

this is an appropriate time for information to be provided rather than at the commencement of supply.

Recommendation 20

- **Amend the NERR to require authorised retailers to provide additional information on costs, benefits and risks to embedded network customers prior to the formation of an energy contract.**
- **Jurisdictional governments should consider whether there is sufficient provision for disclosure of the cost, benefits and risks of embedded networks in state based laws prior to the purchase or lease of a property.**

9.5.2 Comparing prices

Where there is access to retail market offers for consumers within embedded networks, consumers need access to relevant information to compare prices between on-market retailers and off-market supply in order to exercise their choice.

Under the NERL a retailer must present (and publish on its website) its market offer prices (including any variation of those prices) in accordance with the AER's Retail Pricing Information Guidelines.[477]

Under our proposals to improve access to competition (chapter 7), embedded network customers should be able to review and choose from many of these market offer prices, comparing them to prices charged in their embedded network.

Authorised on-selling retailers would also be required to publish their prices, though their requirements may differ from other authorised retailers as requirements may be inapplicable (e.g. submitting prices for the purposes of the Energy Made Easy price comparison website).

Under the exemption framework, the prices exempt sellers charge are not published. Many exempt sellers should also be required to publish this 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.

Draft recommendations

In the draft report we recommended:

- 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

477 NERL, s.37.

should consider whether some embedded networks should be exempt from this requirement due to their size or nature.

Submissions on the draft report

The AER agreed with the recommendations and considered this could be implemented by "requiring EN sellers to publish their energy prices, fees and charges on their own websites in a form that is easy to compare with the tariffs, fees and charges of other sellers".[478]

Origin also agreed with the recommendations.[479]

CPAQ argued that caravan parks should be exempt from publishing prices as at cost pricing is required under Queensland legislation.[480]

SCCA did not support the recommendations, noting that "[B]y requiring embedded networks to publish their prices, a traditional authorised retailer could have a distinct advantage in 'gaming' the system".[481]

Final recommendation

The AEMC maintains its recommendations from the draft report.

Recommendation 21

- **Amend the NERR to require authorised on-selling retailers to publish their prices on their websites in line with other authorised retailers.**
- **The AER should amend its retail exemption guideline to require exempt sellers 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.**

9.5.3 Brownfield conversion

Clear information around the costs, benefits and risks which apply when being supplied within an embedded network, may also assist consumers when making a decision to convert existing arrangements to an embedded network.

Under the AER's network exemption guideline, conversion of an existing site (brownfield conversion) requires the AER's approval. The applicant must conduct a marketing campaign to inform tenants and may apply to the AER for approval if it can

478 AER, submission on the draft report, p. 6.

479 Origin, submission on the draft report, p. 3.

480 CPAQ, submission on the draft report, p. 3.

481 SCCA, submission on the draft report, p. 5.

demonstrate that 85 per cent or greater of tenants and/or residents have agreed to conversion to an embedded network.[482]

Conversion of an existing site can also require an application for an individual exemption under the AER's retail exemption guideline.

Draft report position

The AER noted in its submission on the consultation paper that when an authorised retailer is involved in a brownfield conversion they are not subject to the retail exemption guidelines and some protections may not apply.[483] It appears however that the network exemption guidelines could be modified to address gaps that may result.

Under the proposed framework, brownfield conversion to an embedded network in most cases would require an embedded network service provider to register with AEMO and an authorised retailer to provide retail services. Specific provisions may be required in the laws or rules to enable appropriate scrutiny of brownfield conversions.

Submissions on the draft report

SACOSS and the signatories to their submissions discussed brownfield conversions in detail in their submissions on the consultation paper and draft report.[484] [485]

SACOSS and Uniting Communities are concerned that brownfield conversions led by an authorised retailer result in customers having fewer protections in relation to the retrofit process. They submit that the AEMC and AER should address this through the existing exemption framework, prior to the transition to AEMC's proposed new framework.[486]

SACOSS and Uniting Communities also recommend further protection arrangements with respect to:[487]

- "the current processes for obtaining [explicit informed consent] EIC, including information provision and clear explanation of the risks and the costs and benefits relating to the conversion process itself
- enhanced reporting, enforcement and penalty regimes for failure to comply with EIC and other relevant consumer protections commensurate with the extent of potential detriment to consumers from the effective loss of access to retail competition
- the application of the exemption Guideline conditions relating to brownfield conversions to an existing authorised retailer who initiates a brownfield conversion."

---

482 AER, Electricity network service provider - registration exemption guideline, version 5, March 2016, section 4.9, pp. 67-70.

483 AER, submission on the consultation paper, p.7.

484 SACOSS et al, submission on the consultation paper, pp. 8-9.

485 SACOSS and Uniting Communities, submission on the draft report, pp. 12-15.

486 SACOSS and Uniting Communities, submission on the draft report, p. 13.

487 SACOSS and Uniting Communities, submission on the draft report, p. 13.

SACOSS also questioned what the consequences were for the proponent of the brownfield conversion if the outcomes did not match the information they provided at the time of conversion.[488]

Flow recommended removing the requirement to demonstrate that 85 per cent or greater of tenants and/or residents have agreed to conversion to an embedded network.[489]

Analysis and final recommendations

The AEMC continues to hold the view that many of the concerns regarding authorised retailers role could be addressed in the interim by changes to the AER's network exemption guideline. While an authorised retailer retailer involved in a brownfield conversion is not subject to the retail exemption guidelines, under the current regulatory arrangements an exempt network service provider would still need to be involved in the conversion, and they would be subject to the network exemption guideline. By reflecting relevant requirements of the retail exemption guidelines in the network exemption guideline this should allow for information provision obligations and other obligations to be placed on the exempt network service provider and for similar consumer protections to be achieved in the interim.

The NERL and NERR, and possibly the NEL and NER as well, should also be amended to elevate the requirements for brownfield conversions into the law and rules.

The AEMC is of the view that the current 85 per cent threshold is appropriate. It strikes a balance between providing consumers with an opportunity to prevent a conversion that is not in their interests and the ability of property owners to make changes to their property.

As discussed elsewhere in this report there is a general need to improve reporting, monitoring and enforcement. Whether any specific actions are needed in relation to brownfield conversions should be considered during the following stages of reform of embedded network regulatory arrangements.

Recommendation 22

- **The AER should consider any updates needed to the network exemption guideline to reflect relevant requirements for brownfield conversions in the retail exemption guideline.**
- **Amend the NEL, NER, NERL and/or NERR to elevate the information provision and other requirements for brownfield conversions into the law and rules.**

488 SACOSS, Submission on the draft report, p. 14

489 Flow, submission on the draft report, p. 13.

A Regulatory framework

A.1 NEL and NER requirements

To be able to provide network and/or retail services embedded network operators must be exempted from registration as a NSP and/or authorisation as a retailer from the AER. Embedded network operators must then comply with the terms and conditions of their exemptions.

Exemptions were historically provided under local licensing arrangements. With the establishment of the NEM, an exemption framework was developed under the National Electricity Code (the Code). It was intended to apply to parties such as apartment buildings that reticulated and on-sold electricity as part of their operations but where it was not part of their core business. This was on the basis that the cost of meeting certain requirements under the Code would be overly onerous and outweigh the benefits to consumers.

A.2 Who requires an exemption?

The definition of NSP is very broad. A NSP is a person who engages in the activity of owning, controlling or operating a transmission or distribution system. An exemption from the AER is required for such a party to be unregistered, be that party a legal person, corporation, government department or statutory body of any kind.

Similarly, 'energy selling' covers a wide range of activities, from energy retailing by authorised (licensed) retailers to landlords recovering energy costs from their tenants. Energy sales do not necessarily have to be for profit – simply passing on energy costs to another person is considered to be a sale. Nor are energy sales limited by the parties involved. For example, they include sales to residential homes or other places of residence (for example, a caravan park where residents permanently reside), shopping centres and commercial sites.

The broad definitions of NSP and 'energy selling' mean that almost all embedded network operators, even those for very small networks, will be required to either register and be authorised as NSP and retailer respectively, or seek (or be eligible for) an exemption from both, NSP and retailer.

A.3 Exemption framework

The AER has discretion over the kinds of network service provider exemptions that it can grant.

The NEL does not stipulate the kinds of network service provider exemptions that the AER can grant or the criteria that the AER should consider when assessing an application for exemption from a NSP. The AER also has discretion regarding the conditions that apply to each kind of exemption. Embedded network operators must then comply with the terms and conditions of these exemptions under the AER's Electricity Network Service Provider Registration Exemption Guideline (the network exemption guideline).

The NERL includes policy principles that the AER must take into account when exercising its exemption functions and powers in relation to sellers of both electricity and gas. It also provides the AER with guidance on the exempt seller and customer factors it may wish to consider. Notwithstanding these additional constraints and guidance, the AER has considerable discretion in developing and applying the (Retail) Exempt Selling Guideline (the retail exemption guideline) including what conditions should be attached to these exemptions.

In overview, the exemption framework in the NERL:[490]

- sets out the AER's power to:
  - exempt persons, or classes of persons, from the requirement to hold a retailer authorisation
  - revoke exemptions
  - impose conditions on an exempt seller or class of exempt sellers in accordance with the NERR and the AER Exempt Selling Guidelines
- establishes three kinds of exemptions (individual, deemed and registrable)
- stipulates the policy principles which the AER must take into account in exercising its exemption functions and powers:
  - the regulatory arrangements for exempt sellers should not unnecessarily diverge from those applying to retailers
  - exempt customers should, as far as practicable, be afforded the right to a choice of retailer in the same way as comparable retail customers in the same jurisdiction have that right
  - exempt customers should, as far as practicable, not be denied customer protections afforded to retail customers under the NERL and NERR
- includes a range of exempt seller related factors and customer related factors the AER may take into account in exercising its exemption functions and powers as set out in Box A.1.

Box A.1 Exempt seller and customer related factors

The exempt seller related factors that the AER may take into account in performing or exercising its exempt selling functions are as follows:[491]

- whether selling energy is or will be a core part of the exempt seller's business or incidental to that business
- whether the exempt seller's circumstances demonstrate specific characteristics that may warrant exemption
- whether the exempt seller is intending to profit from the arrangement
- whether the amount of energy likely to be sold by the exempt seller is significant

490 Part 5, Division 6 of the NERL.

491 NERL, s. 115.

in relation to national energy markets

- the extent to which the imposition of conditions on an exemption, or to which the requirements of other laws, would allow appropriate obligations to govern the applicant's behaviour rather than requiring the applicant to obtain a retailer authorisation
- the likely cost of obtaining a retailer authorisation and of complying with the NERL and the NERR as a retailer compared to the likely benefits to the exempt customers of the exempt seller
- any other seller related matter the AER considers relevant.

The customer related factors that the AER may take into account in performing or exercising its exempt selling functions are as follows:[492]

- whether the characteristics of the exempt customers or the circumstances in which energy is to be sold to them by the applicant are such as to warrant exemption
- the extent to which the imposition of conditions on an exemption, or to which the requirements of other laws, would allow the exempt customers access to appropriate rights and protections rather than requiring the applicant to obtain a retailer authorisation
- any other customer related matter the AER considers relevant.

A.4 AER Exemption guidelines

A.4.1 Types of exemptions

The AER's network and retail exemption guidelines outline three categories of exemptions to being registered as a NSP and authorised as a retailer: deemed, registrable and individual. Each category has a different set of eligibility requirements. Notably:

- small networks are generally eligible for a deemed exemption. These do not require application or registration with the AER, but the exempt party must still comply with the conditions of the exemption, which vary depending on the type of embedded network
- larger networks are generally required to register with the AER as a specific type of registrable embedded network to provide the AER with greater awareness and oversight of these networks
- networks which do not fit within one of the specified classes of deemed or registrable exemptions must seek an individual exemption from the AER.

A full list of the deemed classes of exemptions can be found in the AER's network and retail exemption guidelines.[493]

[492] NERL, s. 116.

A.4.2 Requirements under the network exemption guideline

There are five basic requirements that exempt networks must meet. The basic requirements relate to five key areas:[494]

- safety;
- dispute resolution;
- network charging;
- metering; and
- access to retail market offers.

An overview of these basic requirements is set out below. For more detail on the specific conditions and the applicability of each to the different types and classes of network exemptions see the AER's network exemption guideline.

1. Safety

All embedded networks must, at all times, be installed, operated and maintained in accordance with all applicable requirements (within the jurisdiction in which the network is located) for the safety of persons and property. This includes, where relevant, an industry code or guideline otherwise applicable to a network service provider providing similar services.

The exempt party is also required to co-operate with reasonable requests for information from LNSPs, maintain safety plans, be capable of load shedding in emergency situations and be capable of shutting down or disconnecting local generation in the event of loss of supply from the LNSP's network.

Where notified by a customer of the existence of a requirement to maintain supply for life support equipment ('life support customer'), the exempt party must promptly notify the LNSP of the existence of a life support requirement in accordance with the reasonable requirements of the LNSP. Further, the exempt party must not disconnect supply to a life support customer without making arrangements for the safety of that life support customer.

From 1 December 2017, when notified of a life support customer, the exempt party must promptly notify the parent connection point retailer of the existence of a life support requirement in accordance with the reasonable requirements of the parent connection point retailer. In addition the exempt embedded network service provider must, without undue delay, promptly notify the child connection point retailer when they are informed of life support requirements at a child connection point.

2. Dispute resolution

The exempt party must have in place dispute resolution procedures which customers can access at no cost or on a fee for service basis. The process must be of a type ordinarily applicable to disputes of the kind, be reasonably accessible, timely, binding

493 See: AER, *Electricity Network Service Provider Registration Exemption Guideline*, November 2016 and *(Retail) Exempt Selling Guideline* (the retail exemption guideline), March 2016.

494 AER, Electricity Network Service Provider Registration Exemption Guideline, December 2016, p.15.

on the parties to the dispute and not subject to excessive or unnecessary costs nor to costs disproportionate to the amount in dispute.

3. Network charging

Network charges being passed through from the LNSP may be apportioned to each customer in an embedded network on a 'causer pays' basis in proportion to the metered energy consumption of each customer over the equivalent period. Alternatively the charges borne by each customer may be determined on a 'shadow price' basis. In this context a 'shadow price' requires charging each customer a tariff no greater than the tariff that would have applied had that customer obtained supply directly from the LNSP.

Network charges for the internal network are generally not permitted.

4. Metering

All meters installed from 1 January 2013 used for the measurement of electrical energy whether delivered to, or exported by, a customer must comply with the requirements of the *National Measurement Act 1960* (Cth) and regulations made under that Act for electricity meters and sub-meters and with the requirements set out in Schedule 7.2 of the NER.

5. Access to retail market offers

Where an exempt customer is eligible under state or territory legislation to purchase energy from a retailer of their choice, the exempt network must not block customers accessing retail market offers. From 1 December 2017, an embedded network manager must be appointed where an embedded network customer wants to access a retail market offer. The market interface functions assigned to the embedded network manager relate to the access and maintenance of standing data in the MSATS system, which in turn affects B2B procedures. The new embedded network manager role will reduce barriers for retailers seeking to connect with on market (or off-market customer seeking to become on market) embedded network customers.

A.4.3 Requirements under the retail exemption guideline

The specific conditions that apply to each embedded network depend on the type of exemption required. The conditions relate to five key areas:

- information requirements
- dispute resolution
- retail pricing
- access to retail market offers
- consumer protections.

1. Information requirements

The exempt seller is required to provide information to customers at the commencement of their tenancy or residency agreement regarding the customers' access to retail markets, contact details for complaints and inquiries, the terms and conditions of the exemption and the rights the customer has within the exemption.

2. Dispute resolution

Where disputes arise the exempt seller must make reasonable endeavours to resolve the dispute and advise the customer of rights to access to energy ombudsman schemes and other relevant external dispute resolution bodies in the relevant jurisdiction.

3. Retail pricing

For small customers where access to retail market offers is not available, or is not cost-effective to provide, the price to that customer may not be higher than the standing offer price that would otherwise be charged by the local area retailer.

4. Access to retail market offers

Where an exempt customer is eligible under state or territory legislation to purchase energy from a retailer of their choice, the exempt seller must not discourage or prevent embedded network customers from accessing retail market offers. The exempt seller must not: require a customer to waive their ability to choose a retailer, unreasonably hindering their efforts to find another retailer and unreasonably hindering any metering or network changes required to enable choice of retailer.

5. Consumer protections

The consumer protection conditions relate to a wide variety of issues, including:

- obligation to supply
- provision of flexible payment options
- regularity of bills
- application of government concession and rebate schemes
- requirements for life support customers
- termination of supply contracts
- estimation of bills
- reasonable payment periods.

A.4.4 Jurisdictional arrangements

All participating jurisdictions in the national electricity market have applied the NEL as law through an application statute.

The Australian Capital Territory, Tasmania, South Australia, New South Wales and Queensland have adopted the NERL. Victoria has not adopted the NERL and has its own exemption framework which is currently being reviewed.[495]Victoria, New South Wales and South Australia currently have regulatory frameworks which allow for embedded network customers to access retail market offers. In Queensland, Tasmania and the Australian Capital Territory (ACT) embedded network customers need a direct connection to the local distribution network if they want access to retail market offers.

495 See Department of Environment, Land, Water and Planning, The State of Victoria, 1996-2015, viewed 7 March 2017, http://delwp.vic.gov.au/energy/legislation/general-exemption-order-review.

In the embedded networks final rule determination the Commission recommended changes to jurisdictional regulations in Queensland, Tasmania and the Australian Capital Territory to remove the barriers to embedded network customers accessing retail market offers. We also recommended changes to jurisdictional regulations in South Australia, Victoria and New South Wales to align the jurisdictional regulations that allow embedded network customers access to retail market offers.

We understand that the ACT and Queensland are expected to review their arrangements for access to retail competition in embedded networks.

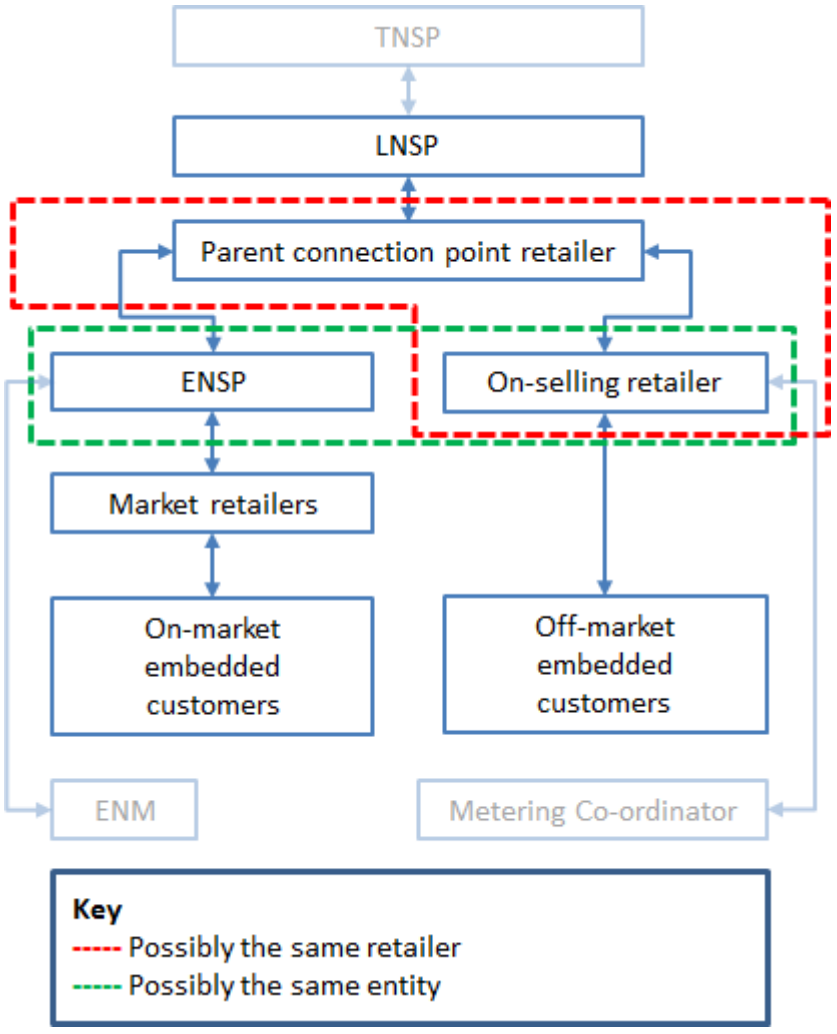
B Nature of relationships under the proposed arrangements for new embedded networks

This appendix sets out the relationships between the entities that would provide services to new embedded network under the proposed changes to elevate embedded networks into the national framework in the NER and the NERR including the relationships between:

- developers or owners corporations and the registered embedded networks service provider
- the parent connection point retailer and the authorised retailer on-selling electricity to embedded networks customers
- the embedded network service provider and market retailer relationship
- the on-selling authorised retailer's relationship with the Metering Coordinator.

Figure B.1 (below) illustrates some of these relationships.

Figure B.1 Relationships between entities providing embedded network services



B.1 Setting up an embedded network

The Commission has not recommended that consumer benefits be demonstrated to gain approval to establish an embedded network on the basis that the regulatory framework would already promote efficient decision making. We sought but did not receive any comments from stakeholders on this issue.

B.2 Owners corporation commercial relationship with the embedded network service provider and authorised retailer

Some owners corporations may choose to apply for retailer authorisation and register as an embedded network service provider so they can establish an embedded network and on-sell electricity to customers.

However, we consider it more likely that most owners corporations will establish relationships with third party registered network service providers and authorised retailers to provide services on commercially agreed terms. For example, an owners corporation may enter into a commercial agreement with:

- an authorised retailer to on-sell electricity at an agreed tariff to customers in the embedded network
- a registered embedded network service provider for the installation, operation and management of the embedded network.

The nature of the relationship between these entities would be a commercial one and would not be regulated under the NER or NERR. The Commission acknowledges that developers may enter into these arrangements prior to an owners corporation being established, which raises a question of whether developers will enter arrangements that are in the interests of a future owners corporation and embedded network customers. However, the Commission considers that facilitating embedded networks customers' access to retail market competition, which places competitive pressure on the embedded networks service provider and on-selling authorised retailer, would counter any incentives the developer may have to place its own interest over those of consumers.

B.3 Relationship between the parent connection point retailer and the authorised retailer on-selling electricity to embedded networks customers

As set out above, the authorised retailer on-selling electricity to embedded networks customers is the customer at the parent connection point and purchases electricity from the financially responsible market participant (FRMP) at that parent connection point.

This relationship will not be regulated any differently to any other FRMP and customer relationship under the NER or retailer and retail customer relationship under the NERR.

As illustrated in figure B.1, the parent connection point retailer and the authorised retailer on-selling electricity to embedded networks customers may be the same entity.

B.4 On-selling authorised retailers' appointment of a Metering Coordinator

As set out above, it is proposed that on-selling authorised retailers providing off-market services to embedded network customers be required to appoint a Metering Coordinator for embedded network connection points. As is the case with the appointment of a Metering Coordinator under the new regulatory arrangements for metering coming into effect on 1 December 2017, the on-selling authorised retailer will appoint a Metering Coordinator on commercially agreed terms.