AEMC

REVIEW

Australian Energy Market Commission

CONSULTATION PAPER

Review of regulatory arrangements for embedded networks

11 April 2017

Submissions due 16 May 2017. Reference: RPR0006
Consultation Paper

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*, Consultation Paper, 11 April 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 number of embedded networks has grown significantly in recent years. A range of business models to provide embedded network services are also emerging in the market 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 bring both opportunities for innovation and potentially new risks for consumers.

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 operator. Generally, the embedded network operator 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 operators must gain exemption from registration as a network service provider. If this party also wishes to sell energy within the embedded network it must also 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 the exemption framework rather than being subject to the same arrangements and protections as customers that have a standard network connection.

The Australian Energy Market Commission (AEMC or Commission) has been 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 have been 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 review will look at a broad range of issues related to the regulatory framework for embedded networks including whether the current framework remains fit for purpose. The review will also consider barriers to embedded network customers wishing to access competitive retail energy offers and appropriate consumer protection

1 This review primarily relates to electricity embedded networks. 'Embedded network' is used to refer to an electricity embedded network, an embedded network involving gas distribution is referred to as a 'gas embedded network'.

arrangements for embedded network customers. The AEMC will also consider whether any issues arise in relation to gas embedded networks.

This consultation paper sets out the scope of this review, our proposed approach to assessing identified issues, as well as a number of other issues for stakeholder comment. The issues are broken into four core questions for stakeholders:

1. Is the regulatory framework for embedded networks fit for purpose?
2. Can access to retail market offers be improved?
3. What consumer protections should apply to embedded network customers?
4. Are current regulatory arrangements for gas embedded networks appropriate?

Written submissions from stakeholders are requested by 16 May 2017.

Contents

1 Introduction

As recommended by the AEMC in the *Embedded networks* final rule determination, the COAG Energy Council has requested the AEMC to undertake a review of the regulatory arrangements for embedded networks.

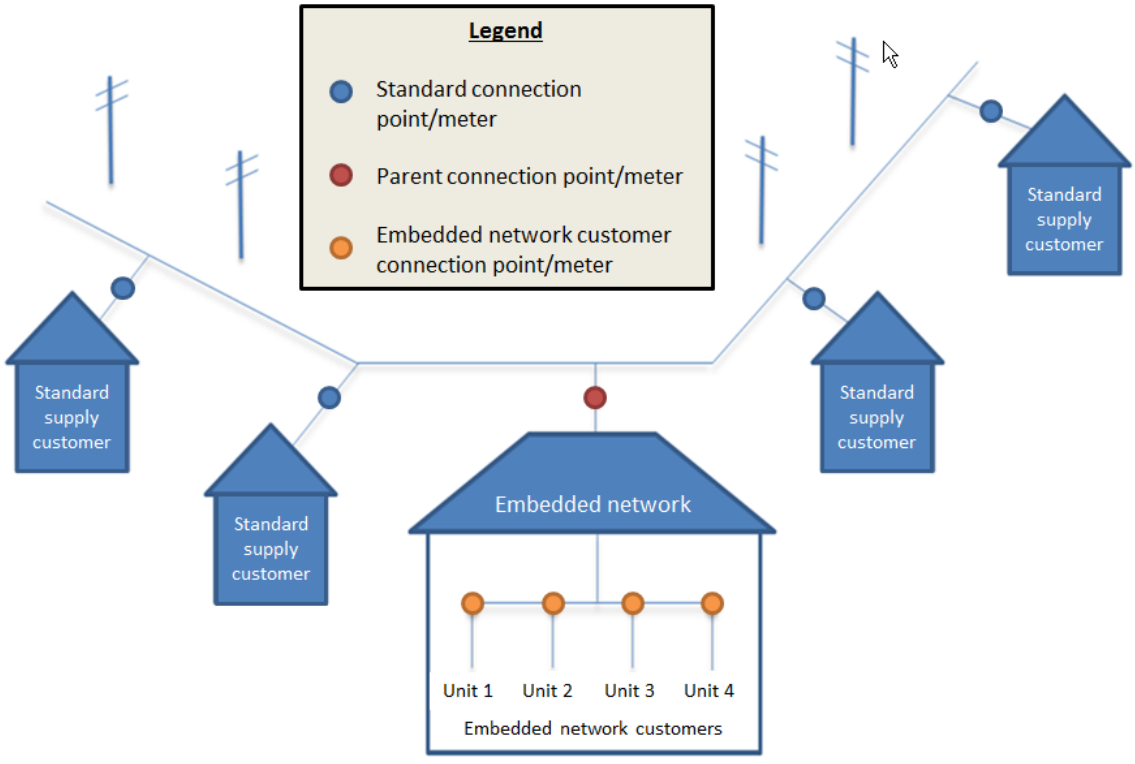
This chapter sets out background information to this review, the requirements of the terms of reference and our approach to stakeholder consultation.

1.1 What is an embedded network?

1.1.1 Definitions and concepts

Embedded networks are private electricity networks which serve multiple customers. The embedded network is connected to the national grid through a parent connection point (see Figure 1.1) and is operated by a party known as an embedded network operator. Generally, the embedded network operator also purchases electricity at the parent connection point and on-sells it to customers within the embedded network. Box 1.1 sets out key definitions used in this paper.

Figure 1.1 Embedded network connection points

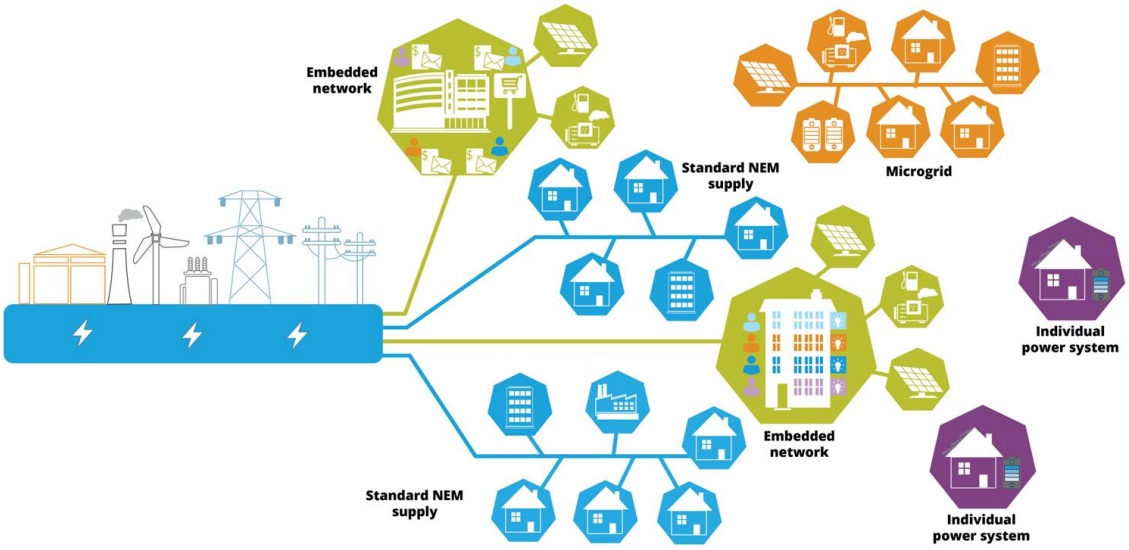


Shopping centres, retirement villages, apartment complexes and caravan parks are common examples of developments which are supplied by an embedded network. Embedded networks may be established as part of a new development (greenfield). In some cases existing buildings are retrofitted with embedded networks (brownfield). Some embedded networks have distributed energy resources such as solar photovoltaic (PV) panels, battery storage, or diesel generators located within them.

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 connected to the national grid (see Figure 1.2). The connection to the national grid results in embedded networks being regulated under the NEL and the NER, while the off-grid supply arrangements are not regulated under the NEL and the NER.

This review only focuses on embedded networks, not microgrids or IPS. The AEMC's assessment of the *Alternatives to grid-supplied network services rule change* rule change request and COAG Energy Council's Energy Market Transformation work program is considering microgrids and IPS.

Figure 1.2 Four models of electricity supply



Under the NEL, to provide network services to parties connected to the national grid a party must either be registered with Australian Energy Market Operator (AEMO) as an electricity network service provider or gain exemption from registration as a network service provider. Similarly, under the NERL, if a party wishes to sell energy to a customer connected to the national grid it must also hold a retailer authorisation from the AER, or be exempted by the AER from holding a retailer authorisation.

Box 1.1 Key definitions used in this paper

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, 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: 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.

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

Microgrid: Any connection of multiple customers that is not physically connected to the national electricity system. This could include anything from a large town to two farms connected to each other. Remote Indigenous communities, island resorts and remote mining towns are often supplied by microgrids. This definition excludes 'local electricity systems' in the Northern Territory as defined in the *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015*.

Individual power system (IPS): An individual power system is an individual customer with its own supply sources, not connected to the national electricity system or a microgrid. Typically, it includes a combination of solar PV, energy storage and a back-up diesel generator.

Local network service provider: The 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: 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.

Standard supply: This term refers to where a customer is connected directly to either a distribution system or transmission system that forms part of the national grid.

1.1.2 Overview of the exemption framework

The AER has discretion over the kinds of network service provider and retailer authorisation exemptions that it can grant. It also has discretion regarding the conditions that apply to each kind of exemption. The two relevant exemption guidelines are the AER's:

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

These guidelines cover a broad range of types of embedded networks and outline the various classes and kinds of exemptions available and conditions for these exemptions.

There are three categories for both network and retail exemptions: deemed, registrable and individual. Within these categories there are many classes of exemptions for different types of embedded networks. Each class of exemption is subject to particular conditions. The specific conditions that apply to each embedded network depend on the type of exemption required and the applicable class.

The network exemption conditions relate to: 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 relate to five key areas: information requirements; dispute resolution; retail pricing; access to retail competition; and consumer protections.

Once exempted from being registered as a network service provider or holding a retailer authorisation, embedded network operators must comply with the terms and conditions of these exemptions under the guidelines.[2]

Further detail on the exemption framework and exemption conditions is provided in Appendix A.

1.1.3 Jurisdictional arrangements

Victoria, New South Wales, South Australia and the Australian Capital Territory have regulatory frameworks which 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. Queensland is expected to review these arrangements. This may require significant changes to the wiring within the embedded network, the costs of which would be borne by the customer.

In the *Embedded networks* final rule determination 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.[3] These jurisdictional arrangements continue to evolve and the Commission is requesting information from stakeholders on arrangements that are currently impacting on embedded networks (see Section 3.1.2).

1.1.4 Operation of embedded networks

In the standard arrangements for customers in the national electricity market (NEM) the registered local network service provider (LNSP) owns and operates the

2 For embedded networks which 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 exemption and retail exemption guidelines.

3 AEMC, *Embedded networks*, final rule determination, 17 December 2015, Sydney, Appendix E.

distribution network which connects 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 owned and operated by the embedded network owner and embedded network operator respectively. These parties are not NEM registered network service providers, are not subject to economic regulation by the AER and may be the same person.

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 operator, who is not an authorised retailer or accredited provider. This type of arrangement is known as "off-market" activity because the customers are not visible in the NEM systems, to AEMO, or to NEM participants. 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 instead of the embedded network operator as their retailer. 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 operator. This type of arrangement is called "on-market" activity because the customers are included in the NEM market systems and are visible to AEMO and NEM participants.

Where an off-market customer within an embedded network elects to become on-market (i.e. purchase retail services from an authorised retailer), the customer must still pay the embedded network operator for the provision of network services to the parent connection point. Typically this will occur by the customer paying the embedded network operator directly, but in some cases the retailer and the embedded network operator can allow the customer to pay a single invoice to the retailer for both network and energy services. The retailer then passes on the network component to the embedded network operator (see also Box 3.1).

Network charges to embedded network customers consist of embedded network operators passing on charges from LNSPs for the provision of network services to the parent connection point. Embedded network operators are not permitted to charge for

provision of the embedded network through electricity charges.[4] In most circumstances, the AER considers the network development costs for embedded networks to have been met in the establishment of the facility and to be recoverable through other means such as lease payments. A charge for network services within the embedded network could result in double charging.

1.1.5 Summary of legal instruments and service providers

Table 1.1 compares the regulatory arrangements of off-market embedded network customers, on-market embedded network customers and customers outside of embedded networks.

Table 1.1 Legal instruments and service providers of electricity services

Service	Off-market embedded network customers		On-market embedded network customers		Standard NEM customers outside embedded networks	
	Who provides the service?	Under what instrument?	Who provides the service?	Under what instrument?	Who provides the service?	Under what instrument?
Network	Embedded network operator	AER network exemption guideline	Embedded network operator	AER network exemption guideline	DNSP	NER
Metering	Embedded network operator	AER network exemption guideline	Accredited providers	NER and NERR	Accredited providers	NER and NERR
Market interface	Not required	Not required	Embedded network manager (from 1 Dec 2017)	NER (from 1 Dec 2017)	DNSPs	NER and AEMO procedures
Retail (sale of electricity)	Embedded network operator	AER exempt selling (retail) guideline	Retailers	NERR	Retailers	NERR

1.1.6 Growth and diversity in embedded networks

The number of embedded networks has grown significantly in recent years. The AER had approved 3032 network exemption applications by the end of 2016, with 1357 of those relating to residential developments. This is up from 1018 related to residential developments at the end of 2015 and 487 at the end of 2014.

The growth in embedded networks is being driven in part by housing market trends with a recent surge in the construction of apartment buildings. This growth is also reflective of a diverse range of parties responding to incentives and market opportunities.

4 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, December 2016, Melbourne, pp.58-59.

A range of business models are evolving to provide embedded network services including:

- profit driven business models which could, for instance, be trying to increase the marketability of a development
- profit driven business models with a technology focus including on-site generation
- strata companies which use funds raised to make improvements to infrastructure or services for owners and tenants
- not-for-profit enterprises seeking to minimise the costs for embedded network customers
- enterprises with a focus on renewable energy and optimising its use and utility within the network.

Embedded networks diverge on a range of other dimensions including the extent of their use of the grid, their configuration and the types of services offered.

Some embedded networks will take all their electricity supply from the grid. Others may have on-site generation taking only part of their electricity supply from the grid or use the grid connection as a 'back up'.

There is a wide variety in embedded network configurations in relation to the type of internal metering, the relationship of site residents or participants and the network type and use. The types of sites can range from caravan parks, retirement villages, industrial parks and airports.

While some embedded network operators only on-sell electricity, others also sell other services including water, hot water, gas and internet.

Improving technology and evolving business models bring both opportunities for innovation and benefits and potential new risks for consumers.

1.2 Background to this review

Embedded networks have been considered in the context of wider reviews completed by the AEMC including the *Energy market arrangements for electric and natural gas vehicles*[5] and the *Power of choice review*.[6] 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*) will create a new accredited provider

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

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

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.

Having said that, in the final rule determination the Commission 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. Some of these issues relate to the NERL and NERR, while others relate to the NEL, NER, NGL, NGR and jurisdictional instruments.[7] 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; and
- 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 that the COAG Energy Council request the Commission to 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 that the COAG Energy Council consider whether the recommended AEMC review should also consider, and provide recommendations on, broader embedded network issues.

7 AEMC, *Embedded Networks*, final rule determination, 17 December 2015, Sydney, p.68.

1.3 Terms of reference and scope

1.3.1 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 is to identify and assess any issues for embedded network customers under the NERL and NERR and identify appropriate solutions. This includes an analysis of barriers in the NERL and NERR in relation to embedded network customers accessing offers from competing retailers. The COAG Energy Council review has 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 has 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. As set out above, these broader issues include the two tiered regulatory framework for embedded networks, arrangements for gas embedded networks, the potential for lesser consumer protections and issues raised by consumer groups.

The AEMC has been 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 require the AEMC to consider options which:

- support competition where effective
- take into account the cost of regulation and supports 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.

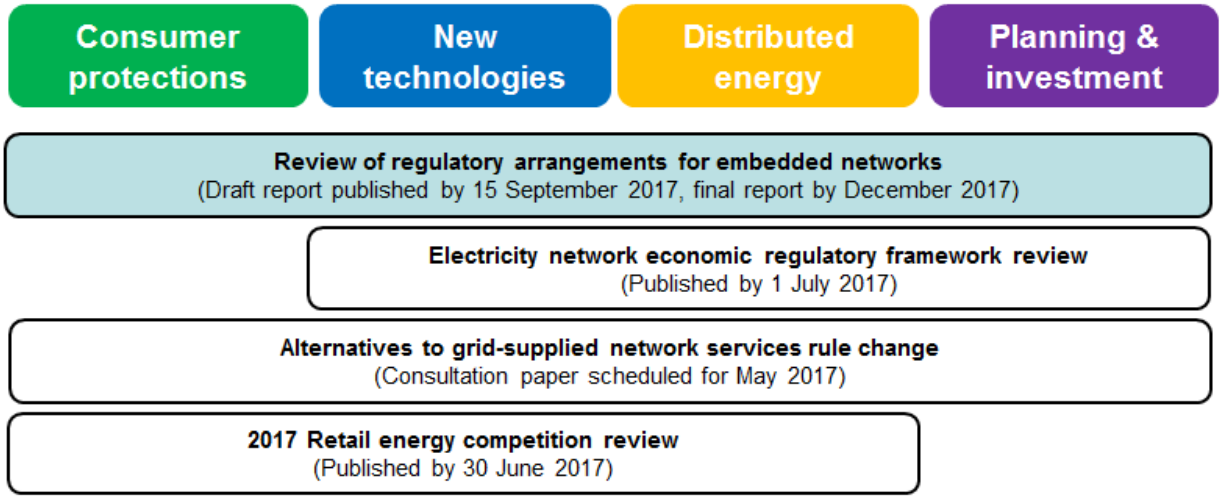
The AEMC is to provide an update on the scope of the review to the Senior Committee of Officials in May 2017. The terms of reference require that a draft report be published by 15 September 2017 and a final report by December 2017.

Our approach to the review and assessment framework is set out in Chapter 2.

1.4 Other related work and issues

There are a number of rule changes and reviews being undertaken by the Commission that are ongoing and related to this review. Figure 1.3 displays these projects and the topics they cover and their timing.

Figure 1.3 Related AEMC projects



The Commission is closely coordinating and considering 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 is also reviewing the exemption framework under their jurisdictional legislation.

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

2017 retail energy competition review[8]

The AEMC's 2017 retail competition review will include analysis relating to the growth in embedded networks and the different business models which have evolved to provide services under the exempt network service provider and exempt seller framework. The evidence base produced through this analysis will inform this review.

Electricity network economic regulatory framework review[9]

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 to advise on whether the economic regulatory framework for electricity networks is sufficiently robust and flexible to continue to achieve the national electricity objective (NEO) in light of these developments. The

8 See the project page on the AEMC website: http://www.aemc.gov.au/Markets-Reviews-Advice/2017-Retail-Energy-Competition-Review

9 See the project page on the AEMC website: http://www.aemc.gov.au/Markets-Reviews-Advice/Electricity-Network-Economic-Regulatory-Framework.

Commission is required to publish its findings annually, with the first report due on 1 July 2017.

The Commission published an approach paper on 1 December 2016, which set out how it intends to conduct the task and its proposed information sources. The paper also sets out the Commission's preliminary views on the areas that will be the focus of the 2017 report, which are:

- continued implementation of network pricing reform
- the ability of networks to utilise increasingly diverse supply options
- different network operating models.

Alternatives to grid-supplied network services rule change[10]

In September 2016, Western Power submitted a rule change request 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 1.1.1 above) and does not cover embedded networks. It proposes amendments to the definition of 'distribution services' which will affect how these systems are classified. The AEMC has started considering this rule change request and plans to publish a consultation paper in May 2017.

Projects in implementation phase

The Australian Energy Market Operator (AEMO) is currently implementing the *Embedded network* and *Expanding competition in metering and related services* rule changes that were made by the Commission, and which are closely linked to this rule change. Information on these completed rule changes is available on our website.[11]Of particular relevance to this review is the final rule determination on the *Embedded networks* rule change request, which was made on 17 December 2015 and will commence on 1 December 2017.

COAG Energy Council's Energy Market Transformation work program[12]

In December 2015, the Energy Council endorsed an Energy Market Transformation work program to consider appropriate policy and regulatory response 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

10 See the project page on the AEMC website: http://www.aemc.gov.au/Rule-Changes/Alternatives-to-grid-supplied-network-services

11 See the relevant project pages on the AEMC website: http://www.aemc.gov.au/Rule-Changes/Embedded-Networks and http://www.aemc.gov.au/Rule-Changes/Expanding-competition-in-metering-and-related-serv

12 See the project page on COAG Energy Council's website: http://www.coagenergycouncil.gov.au/council-priorities/energy-market-transformation

- 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.[13]

As required by the terms of reference for this review, the Commission will be informed by the COAG Energy Council's work on these issues.

The Victorian Government General Exemption Order (GEO) review

The Victorian Government is currently undertaking a review of the General Exemption Order (GEO) which provides for exemptions from the requirement to hold an electricity licence for certain activities in Victoria.[14]

The GEO review is examining protections for consumers in embedded networks in Victoria and aims to establish a flexible authorising framework for alternative energy business models such as solar power purchase agreements and community energy projects. A draft position paper was published by the Department of Environment, Land, Water and Planning in mid-2016.

1.5 Stakeholder consultation

Under this review, the COAG Energy Council has requested the AEMC to consult with jurisdictions and key stakeholders including the energy market institutions, AEMO, AER and Energy Consumers Australia (ECA).

Information provided by stakeholders will be essential to understanding consumer experiences, determining the extent to which barriers to embedded networks customers accessing retail competition exist and whether the regulatory framework for embedded networks remains appropriate.

This consultation paper sets out the Commission's approach to assessing the issues identified in the terms of reference along with a series of questions for stakeholders. Responses to this paper will further inform the AEMC's understanding of these issues and potential solutions. Stakeholders are therefore invited to make submissions on the matters raised in this paper, and any other matters they consider relevant to this review. We will also hold a consultation forum with consumer groups in May 2017 to comment on the issues raised in this consultation paper. The proceedings from this consultation forum can be published and treated as a submission.

Consistent with the terms of reference, the project team have met with some stakeholders in preparing this consultation paper. We invite stakeholders wishing to discuss any aspect of this review prior to, or following, the preparation of a submission to contact the project team.

13 Available on the AEMC website: http://www.aemc.gov.au/About-Us/Resources/Corporate-publications

14 See: http://delwp.vic.gov.au/energy/legislation/general-exemption-order-review

The AEMC will hold a public forum in mid-2017 in order to gain further input on issues for embedded network customers and potential solutions. We will also invite submissions on the draft report following its publication in September 2017.

1.6 Submissions

Written submissions from interested stakeholders in response to this consultation paper on the *Review of regulatory arrangements for embedded networks* must be lodged with the AEMC no later than 16 May 2017 at 5.00pm. Submissions should refer to the AEMC project number "RPR0006" and be sent electronically through the AEMC's online lodgement facility at www.aemc.gov.au. All submissions received during the course of this review will be published on the AEMC's website, subject to any claims of confidentiality.

2 Assessment framework

2.1 Introduction

This chapter sets out the AEMC's proposed assessment framework for this review. It first discusses the overarching objectives that will guide this review. It then discusses the criteria that we propose to use in testing whether arrangements promote these energy objectives (section 2.3).

2.2 National Energy Objectives

This review will involve considering potential changes under all three sets of national energy laws and rules: the NEL and NER for electricity, the NGL and NGR for gas, and the NERL and NERR for retail energy services. Accordingly, all three of the national energy objectives - the NERO, the NEO and the national gas objective NGO - are relevant to the review.

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

The NERO is to:[15]

> "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:[16]

> "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.

The NEO is:[17]

> "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:[18]

> "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."

15 National Energy Retail Law section 13

16 Retail Law section 236(2)(b).

17 National Electricity Law section 7.

18 National Gas Law section 23.

Based on an 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 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 may also be relevant, particularly where embedded networks include large amounts of generation and energy storage. The AEMC will also consider the consumer protection test in developing its recommendations.

For a detailed discussion on the Commission's approach to applying these overarching objectives to rule making processes and reviews, such as this one, refer to *Applying the energy objectives: A guide for stakeholders*.[19]

2.3 Criteria

The following criteria are proposed for assessing the regulatory arrangements for embedded networks and making recommendations to the COAG Energy Council on whether any further work, including 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?

2.3.1 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. The Commission will assess 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. The Commission will also assess whether changes are necessary to assist embedded network customers' ability to access competitive retail offers.

19 AEMC, *Applying the energy objectives*: A guide for stakeholders, 1 December 2016, Sydney.

2.3.2 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.

2.3.3 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.[20] This review will consider the extent to which the regulatory arrangements for embedded networks provide for equivalent consumer protections to be extended to customers in embedded networks. The Commission will then consider whether this is an appropriate level of protection given the choices available to embedded network customers.

The Commission will also consider the current mechanisms for compliance and enforcement of consumer protections within embedded networks.

2.3.4 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
- 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.

20 Section 114(1)(c) of the NERL.

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. This review, for example, will consider how costs and risks are allocated between exempt network service providers, exempt sellers and consumers and whether changes to the framework can increase the appropriateness of risk allocation.

2.3.5 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. This review will consider 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. The Commission will keep this consideration in mind in respect of any potential changes it may propose to the regulatory arrangements. The Commission will consider whether the administrative and compliance burden created by its recommendations is likely to be proportionate to the benefits it is seeking to achieve.

3 Issues for consultation

This chapter sets out the regulatory arrangements for embedded networks in the NEM. It also asks questions of stakeholders about the adequacy of these arrangements, particularly in the context of the increasing number and type of embedded networks discussed in Chapter 1.

The issues are broken into four core questions for stakeholders:

1. Is the regulatory framework fit for purpose?
2. Can access to retail market offers be improved?
3. What consumer protections should apply to embedded network customers?
4. Are current regulatory arrangements for gas embedded networks appropriate?

3.1 Is the regulatory framework fit for purpose?

3.1.1 Overview of the regulatory framework

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. This can result in different obligations in providing network and retail services between those exempted entities suppling embedded network customers and those supplying standard supply customers. Similarly, there can be differences in consumer protections for those customers within an embedded network and standard supply customers.

The exemption framework was initially developed under the National Electricity Code (the Code). It applied to parties such as caravan parks, retirement villages and small apartment complexes that reticulated and on-sold electricity as part of their operations but where it was not part of their core business.[21]

The Code included provisions that would exempt these parties from the application of network access and pricing requirements and the requirement to register and be subject to the Code. This exemption framework thus provided a less onerous regulatory framework to address situations where the number of customers, the risks and the potential impacts would be relatively low.

The exemption framework now sits in the NEL and NERL, which set out the AER's powers and functions in relation to providing network and retail exemptions respectively.

The AER has discretion over whether to grant, and the kinds of network service provider exemptions that it can grant. The NEL and NER do 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

21 The *Guidelines for exemption from the requirement to register as a network service provider*, administered by the National Electricity Code Administrator, included a set of principles against which applications for exemptions would be assessed. One of these principles was that the provision of the network (and any supply of electricity to other parties) must be incidental to the business of the applicant.

NEL and the NER do not guide the AER regarding the conditions that apply to each kind of exemption.

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. The NERL also provides the AER with guidance on the exempt seller and customer related factors it may wish to consider. Under these constraints and guidance, the AER develops and applies the retail exemption guideline including what conditions should be attached to these exemptions.

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 retailer exemption guideline.[22]

Network and retail exemptions are categorised into three types: deemed, registrable and individual.[23] Deemed and registrable exemptions are called 'class exemptions', because they apply to certain groups (or 'classes') of people who sell energy.

Each type has a different set of eligibility requirements and is subject to particular conditions:[24]

- **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 which 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 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

22 For embedded networks which 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.

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

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

caravan parks that sell metered energy to permanent residents and parties selling energy to large customers.

- **Individual exemptions**: Networks which do not fit within one of the specified classes of deemed or registrable exemptions must seek an individual exemption from the AER. In relation to retail exemptions, an individual exemption usually applies to the 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 each of these three types of exemptions there are many different classes of exemption for different types of embedded networks.

A breach of a condition under a retail exemption is a breach of the NERL, and is a civil penalty provision.[25] This is not the case for breaches of conditions under the network exemption guideline.[26] 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/exempt sellers.

Jurisdictional legal instruments also affect the regulatory framework for embedded networks. Appendix E of the *Embedded networks final rule determination* set out the Commission's understanding of jurisdiction specific legal instruments and policy positions that effect embedded network customer access to retail market offers. Some of these jurisdictional instruments and policy positions have been under review since the Commission made the *Embedded networks rule* in December 2015.

Appendix A provides further detail on the regulatory framework.

3.1.2 Issues for stakeholder comment

As set out in section 1.1.6, the numbers and scale of embedded networks and the diversity in the business models of the entities establishing embedded networks are growing. Developments in technology, including distributed generation and storage also mean the technical configuration of embedded networks and are 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

25 Section 112 of the NERL.

26 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.

retail and network exemption, which has implications for access to retail competition and consumer protections.

Given the greater scale and complexity of embedded networks, a relevant question is whether the two tiered regulatory framework remains fit for purpose. The two tiered regulatory framework which requires registration as a network service provider or 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.

Given the AER's limited visibility, it is more difficult for the AER to become aware of non-compliance with registration requirements or exemption conditions and consequently its ability to enforce exemption conditions is limited. 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 registration requirements and exemption conditions.

The AEMC is interested in stakeholder's views on the issues arising under the existing exemption framework for embedded networks and whether it continues to meets the national energy objectives. A number of specific questions are set out below for stakeholders' consideration.

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

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

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

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

Question 2 Does the exemption framework remain fit for purpose?

(a) Does the exemption framework promote efficient investment and allocation of risks and costs. Specifically, does the exemption framework:

(i) incentivise efficient investment in infrastructure and energy services within embedded networks?

(ii) **appropriately allocate risks between exempt sellers and exempt network service providers and embedded network customers.**

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

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

(ii) **what types of embedded networks and on-selling arrangements should be eligible for exemption?**

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

(c) Has the AER been provided the appropriate powers and functions in relation to exemptions under the NEL and the NERL?

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

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

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

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

3.2 Can access to retail market offers be improved?

3.2.1 Benefits of retail competition

A competitive market is where a number of suppliers compete to satisfy the wants and needs of a number of customers. In a competitive market, customers have the ability to choose from a range of suppliers and can reject a supplier's offer.

No individual supplier or customer can individually determine market outcomes. This is because customers can choose to accept or reject offers from a supplier if the customer does not value the product or service under the conditions the supplier is offering. Most importantly, if customers choose not to accept an offer from a supplier there are alternative suppliers that they can purchase from. 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 is the driver of product

differentiation, innovation, quality improvements and cost reductions in a competitive market.

The Commission conducts annual reviews of retail competition in the NEM. The 2016 review found that competition continues to be effective in retail electricity markets in Victoria, South Australia, New South Wales and south east Queensland. Competition in these markets is providing customers with discounts below standing offers and a wide variety of products, services, and terms and conditions.

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.[27] There are a number of significant benefits in allowing 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.

3.2.2 Embedded networks customers' access to retail offers

Barriers to accessing retail offers

The *Embedded networks* final rule determination identified a number of barriers under the current regulatory arrangements to embedded network customers purchasing electricity from retailers in the competitive retail market:

- 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) to a specific party
- Jurisdictional regulations which govern embedded network customer access to retail market offers are inconsistent and some prevent embedded network customers accessing retail market offers
- The NERR do not provide clear obligations and relationships between authorised retailers, embedded network operators and embedded network customers.

The *Embedded network rule* addressed the first barrier above by creating a new accredited provider role – embedded network manager – to perform the market interface functions that link embedded network customers to the national electricity market systems.

In addition to the regulatory barriers identified in the *Embedded networks* final rule determination, there are possibly practical barriers facing existing authorised retailers providing specific products and services to embedded network customers wishing to go on-market. The extent to which these barriers exist and can be addressed will be important when considering whether the existing regulatory arrangements including the consumer protection framework for off-market embedded network customers are appropriate. This is because where embedded network customers are unable to access

27 Section 114(1)(b) of the NERL

retail market offers, the exempt seller effectively becomes the monopoly electricity provider.

First, it may be costly for retailers to develop and offer specific products and services for embedded network customers seeking to go on-market. Box 3.1 sets out the two ways embedded network customers can be provided retail services by authorised retailers. The additional complexity of providing retail services is unlikely to deter retailers from offering and negotiating services with large customers. However, the costs associated with this additional complexity may pose a commercial barrier to retailers developing products and services for small customers.

Box 3.1 Providing retail services to embedded network customers

There are two ways that embedded network customers can be provided retail services by authorised retailers. The first is that the retailer comes to an agreement with the embedded network operator for the embedded network operator to charge it for network services. The retailer then bills the customer for network and energy services. The second method is that the customer pays two separate bills, one to the embedded network operator for network services and one to the retailer for energy services.[28]

For either method to work the embedded network operator must inform either the retailer or the customer of the unbundled prices. For example, under the first method the retailer must know what the embedded network operator will charge it for network services for the customer otherwise it cannot make an offer for network and energy services to the customer. Under the second method, the customer needs to know the breakdown of the network and energy prices so that it can compare the energy component of the embedded network operator's charges to a retailer's energy only prices.

Secondly, for an embedded network customer to be able to go on-market, an embedded network manager will need to be appointed, and the retailer and its Metering Coordinator is likely to wish to enter into an arrangement with the embedded network operator for use of the metering installation.[29] Again, the commercial complexities for the retailer, and/or Metering Coordinator, in entering arrangements with large numbers of embedded network operators may deter retailers from making offers to small customers in embedded networks.

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28 Under the AER's network exemption guideline embedded network operators are not permitted to charge for provision of the embedded network. Network service charges to embedded network customers therefore only relate to the embedded network operator recovering network charges from the parent connection point.

29 Section 4.2.2.3 of the AER's network exemption guideline states that where a market retailer accesses an existing embedded network child meter the market retailer or the customer (as the case may be) may purchase or lease the existing meter from the owner of the meter, or at their own cost, replace the meter with a meter of their own choosing. Section 4.2.2.3 also sets out the payment arrangements for each of these scenarios and stipulates that in all States and Territories an exempt embedded network service provider must provide access on reasonable terms to all necessary facilities to allow the metering of a customer obtaining supply from a market retailer.

Implications of limited access to retail market offers

Limited access to retail market offers will potentially have implications for both off-market and on-market embedded network customers. The different implications for off-market and on-market customers are explored in two potential scenarios below.

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

Embedded network operators source electricity from the retail market at the parent connection point and then on-sell it to embedded network customers. Embedded network operators 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.

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 source energy from an alternative provider and the embedded network operator is able to charge a price 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 have an incentive to bargain with a retailer to obtain the best price at the parent connection point, but they do not face a strong incentive to pass on any savings at the parent connection point to embedded network customers.[30]

The AEMC's 2016 Retail competition review found that the prices of standing offers were generally substantially higher than market offers, with few discounts available to standing offer customers. Market offers included discounts of up to 30 per cent in Victoria, 20 per cent in New South Wales and South Australia and 10 per cent in South east Queensland.[31]

Scenario 2 - on-market embedded network customer of embedded network operator/authorised retailer

It is also possible that with the trend towards larger scale embedded networks in which there could be more than 1000 customers, embedded network operators may choose to obtain a retailer authorisation rather than on-sell electricity under a retailer exemption. The customers within these embedded networks would become on-market customers. In this scenario, embedded network customers may face barriers to switching to another retailer because that retailer would have to negotiate the pricing, network and metering arrangements with the embedded network operator – its direct competitor in the retail market.

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 those savings on to customers because the customers cannot source energy from alternative providers. Furthermore,

30 Some embedded network operators are run on behalf of embedded network customers (for example, a body corporate) and therefore do face an incentive to pass on all savings from the parent connection point.

31 AEMC, *Retail competition review,* final report, 30 June 2016, Sydney, p. 133.

in 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.

Question 4 Can access to retail competition be improved?

(a) What barriers exist for small and large customers in embedded networks going on market?

(b) Are retailers currently providing or planning to provide competitive market offers to embedded network customers? What barriers will remain to providing these offers after 1 December 2017 with the commencement of the *Embedded networks rule*?

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

(d) What is the level of competition to provide electricity to embedded network operators at the parent meter?

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

3.3 What consumer protections should apply to embedded network customers?

This section sets out an overview of:

- the National Energy Customer Framework (NECF)
- the consumer protection framework in relation to the sale of energy to embedded network customers which go on-market or wish to go-on market
- the consumer protection framework in relation to the sale of energy to off-market embedded network customers.

This section also includes questions for stakeholders regarding:

- issues that arise under the NERR for customers in embedded networks that wish to go on-market
- what consumer protections should apply to off-market embedded network customers.

3.3.1 Overview of the National Energy Customer Framework

The main legal instruments of the NECF are the NERL, the National Energy Retail Regulations (Regulations) and the NERR. The NECF:[32]

- 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[33] 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.[34]

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.[35]

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

32 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.

33 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 law, and enforcement remedies amongst others. The ACL prohibits misleading, deceptive and unconscionable conduct.

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

35 ibid.

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

- *Minimum standards*: for example, pre-contractual duties of retailers and the requirement to give notice to customers of any variation in tariffs and charges
- *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, the COAG Energy Council released a consultation paper on what consumer protections should exist in the context of the products and services which supply electricity behind the meter. COAG Energy Council official also published a consultation paper on stand-alone energy systems and the potential consumer protections required in that scenario.[36] The AEMC is required by the terms of reference to have regard to this work.

3.3.2 Consumer protection framework embedded network customers

This section sets out the consumer protection framework which applies to on-market and off-market embedded network customers. The question of what consumer protections should apply to embedded network customers should be considered within the broader question of whether the overarching framework remains appropriate given the evolving nature of the market and changes in technology.

On-market embedded network customers

When an embedded network customer goes on-market they become the customer of an authorised retailer that is operating in the NEM. This retailer is subject to the NERL and NERR and not the conditions of the AER's retail exemption guideline.

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, however, does not exist for on-market embedded network customers because there is no LNSP at the child connection point. Instead there is an embedded network operator. This different circumstance raises a range of retail market issues that require consideration and possible changes to the NERR, and potentially the NERL.

In the *Embedded networks* final rule determination the Commission set out a number of issues regarding embedded networks in relation to the NERR that may potentially benefit from amendment. Some of these issues include:

- the classification of customers
- the applicability of the standing offer and standard contract framework
- market retail offers and contracts
- minimum requirements in relation to the content of bills, tariffs and charges, liabilities and immunities
- arrangements between the financially responsible market participant and a move-in customer or carry over customer
- the operation of arrangements which usually apply between the LNSP and authorised retailer, including de-energisation and re-energisation
- arrangements for life-support customers
- Retailer of last resort (RoLR) arrangements
- presentation of market offer prices
- explicit informed consent.

Appendix B includes the issues identified and published in the *Embedded networks* final rule determination.

Question 5 Issues for embedded network customers that are on-market or wishing to go on-market

(a) Are there any other issues in addition to those set out in Appendix B that we need to consider?

(b) Where an on-market embedded network customer (being supplied by an authorised retailer under a market offer) has limited access to other retail market offers are there any additional consumer protections than those provided in the NERR that should apply?

Off-market embedded network customers

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

The retail exemption framework is built on three core policy principles:[37]

- the regulatory arrangements for exempt sellers should not unnecessarily diverge from those applying to retailers

37 s 111(1) of the NERL.

- 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.

As set out in section 3.1, the AER has the power to impose conditions on exempt sellers under the NERL. The AER must take the above policy principles into account when exercising its exemption powers and functions. The AER has categorised both network and retail exemptions into three types. Each kind of exemption is subject to particular conditions. The AER sets out the conditions of exemption in the retail and network exemption guidelines.

Consumer protections may also be available to off-market 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 retailer exemption guidelines 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".[38]

The conditions that the AER has considered necessary to specifically apply to retail exemptions[39] 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 or residential 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
- *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 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

38 AER, *(Retail) Exempt selling guideline,* version 4, March 2016, p. 57.

39 The specific conditions that apply to each exempt seller depend on the type of exemption.

- *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.

Enforcement and consequences of non-compliance also differ for exempt sellers and authorised retailers as discussed above in section 3.1.

Issues for consultation

Consumer representatives have raised a number of concerns relating to the efficacy of the consumer protection mechanisms for off-market embedded network customers, particularly in relation to vulnerable customers. Reports published by consumer representatives have asserted there is potential for lesser consumer protections for off-market embedded network customers to be available in practice and that changes to the compliance framework for exemptions are required.[40]Some specific issues to consider in this review include:

Risks to consumers are changing

Given the increasing scale and complexity of embedded networks, the risks to consumers are changing. A relevant question is whether the existing framework provides appropriate consumer protections for embedded network customers in the face of these changing risks. This question needs to be considered in the context of broader questions relating to whether the overarching customer framework remains appropriate given the evolving nature of the market and changes in technology.

Characteristics of embedded network customers

There are a number of customer factors which may have bearing on the types of consumer protections that are appropriate for embedded network customers.

The types of customers within embedded networks are diverse. Embedded networks include both residential and commercial customers. Among residential customers, some are vulnerable and live in low-income housing, others are affluent and live in inner-city apartment complexes.

The relationship between an exempt seller and an embedded network customer may also be relevant when considering the appropriate suite of consumer protections that should apply. An exempt seller may be providing a broader service than just electricity to embedded network customers. For example, the exempt seller may also be the embedded network customer's landlord, provider of strata services or water supplier.

The consumer protection framework needs to accommodate these different types of embedded network customers while also being cognisant of characteristics of the relationship between an embedded network customers and exempt sellers.

Information provision and consent requirements

Currently, an exempt seller must provide information to embedded network customers at commencement of supply around their consumer protections. Clear information around consumer protections which apply when being supplied within an embedded

40 See for example: CUAC, *Growing gaps: consumer protections and energy re-sellers*, December 2012, p.4; SACOSS, *The retail and network exemption framework: emerging issues for consumers*, December 2015.

network, may also assist consumers in making decisions about entering an embedded network, particularly where there are barriers to embedded network customers accessing retail market offers. Where there is access to retail market offers, for consumers within embedded networks to exercise choice between retailers and embedded network operators they also need access to relevant information to compare prices between each.

Clear information around consumer protections which apply when being supplied within an embedded network, may also assist consumers when making a decision to consent to their existing arrangements being converted to an embedded network. Under the AER network exemption guideline, conversion of an existing site (Brownfield conversion) requires the AER's approval. The applicant may apply to the AER if it can demonstrate that 85 per cent or greater of tenants and/or residents have agreed to conversion to an embedded networks.

Dispute resolution

Embedded network customers have less access to energy ombudsmen schemes to help resolve disputes with their energy providers.[41] Consumers groups have advocated for the access to independent dispute resolution to be expanded.[42] The AER is currently considering how access to ombudsman schemes can be expanded to embedded network customers and changes to the retail exempt selling guideline to accommodate any potential expansion. Changes to jurisdictional regulation and the funding models of ombudsman schemes may also be necessary.

Hardship

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. Authorised retailers have more extensive requirements, which include having a hardship policy approved by the AER. SACOSS received feedback from embedded network customers that current practices are unacceptable.[43] Some stakeholders have also raised concerns over the ability of embedded network customers to access concessions in some circumstances.

41 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.

42 See for example SACOSS, *The retail and network exemption framework*: *emerging issues for consumers*, December 2015.

43 ibid,

Question 6 What consumer protections, in relation to the sale of energy, are appropriate for off-market embedded network customers?

(a) Is the objective of providing comparable consumer protections to exempt customers and customers of authorised retailers being achieved in practice?

- **(i) What gaps or issues exist?**
- **(ii) Do stakeholders consider the ACL and tenancy legislation to provide suitable complementary protection for embedded network customers alongside the energy specific consumer protections included the exemption conditions?**

(b) Are there changes required to the consumer protection framework for off-market embedded network customers?

- **(i) What should the guiding principles for consumer protections for embedded customers be?**
- **(ii) What risks should be addressed by consumer protections for embedded network customers?**
- **(iii) Should consumer protections continue to be contained in the retail exemption conditions or should they be elevated into another legal instrument, e.g. the NERR?**

(c) What energy-specific consumer protections should apply to off-market embedded network customers in the context of market and technological changes and changing risks?

(d) How do the current arrangements for consumer protection impact on vulnerable embedded network customers? How can access to concessions and rebates be improved?

(e) An exempt seller may be providing a broader service than just electricity to embedded network customers. For example, the exempt seller may also be the embedded network customer's landlord, provider of strata services or water supplier. Does the different relationship between embedded network customers and the exempt seller as compared to the relationship between a retail customer and an authorised retailer have implications for consumer protections?

(f) What examples or case studies can stakeholders provide which demonstrate differences in the consumer protections provided to exempt customers and to customers of authorised retailers? Do the experiences of embedded network customers indicate poorer outcomes due to differences in consumer protections?

3.4 Are current regulatory arrangements for gas embedded networks appropriate?

A gas embedded network can operate in a similar way to an electricity embedded network, where a party is purchasing gas metered at a parent or bulk connection point then distributing and selling this 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 AEMC will consider whether the regulatory framework of gas embedded networks is currently appropriate and what changes may be necessary. The AEMC will also consider 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.

Question 7 Are current regulatory arrangements for gas embedded networks appropriate?

(a) What are the jurisdictional arrangements that apply to gas embedded network service providers?

(b) How do gas embedded networks currently operate? What metering and charging arrangements exist?

(c) What would be the advantages and disadvantages of moving to a national regulatory framework for gas embedded networks? If desirable, what form of national framework would be appropriate?

Abbreviations

ACL	Australian Consumer Law
AEMC or Commission	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
COAG	Council of Australian Governments
IPS	independent power system
LNSP	local network service provider
MSATS	market settlement and transfer solutions
NECF	National Energy Customer Framework
NERR	National Energy Retail Rules
NEL	National Electricity Law
NERL	National Energy Retail Law
NEM	national electricity market
NEO	national electricity objective
NERO	national energy retail objective
NSP	network service provider
PV	photovoltaic

A Regulatory framework

A.1 NEL and NERL 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:[44]

- 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 A1.1.

44 Part 5, Division 6 of the NERL.

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:[45]

- 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 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:[46]

- 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

45 Section 115 of the NERL.

46 Section 116 of the NERL.

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.[47]

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:[48]

- 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.

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47 See: AER, *Electricity network service provider – registration exemption guideline*, 1 December 2016 and *(Retail) Exempt selling guideline*, March 2016.

48 AER, *Electricity network service provider – registration exemption guideline*, December 2016, p.15.

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 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 protection

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.[49] Victoria, New South Wales, South Australia and the Australian Capital Territory (ACT) have regulatory frameworks which 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.

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. The Commission 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.

Queensland is expected to review its arrangements for access to retail competition in embedded networks.

49 See Department of Environment, Land, Water and Planning 2017, The State of Victoria, , viewed 7 March 2017, http://delwp.vic.gov.au/energy/legislation/general-exemption-order-review.

B NERR issues for embedded networks

Table B.1 below was published in the *Embedded networks final rule determination* and sets out a number of possible issues in the NERR related to embedded networks.

Table B.1 NERR issues for embedded networks

Relevant aspect of the retail framework	Overview	Issues arising
Customer classification	For the purposes of the NERL, a customer on an embedded network is likely to be considered a customer with the meaning of the NERL[50] and is likely to fall within the definitions of both a small customer and a residential customer.[51] The framework for classifying customers is set out in Part 1, Division 3 of the NERR. Under this framework, the retailer will need to classify the customer. There is no 'corresponding distributor' for the purposes of the classification framework, the 'distributor' in this case being the owner/operator of the embedded network. However, these rules will still be relevant the extent that the customer makes application for re-classification.	• Are any amendments to this classification framework necessary to take account of retail contestability in embedded networks (especially as customers in embedded networks are not 'shared' between retailers and distributors)?
Standing retail offers and contracts	Under s22(5) of the NERL a designated retailer is not obliged to make a standing offer to a small customer if the customer's premises are not, or are not proposed to be, connected to a distributor's distribution system. The premises of a customer in an embedded network are not connected directly to the distributor's distribution system. The obligation to supply is unlikely to extend to customers in an embedded network. The AER's retail exemption guideline effectively replicates this obligation for such customers, by obliging the holder of the exemption to supply a customer who meets the criteria for the exemption class. A retailer can only provide customer retail services to small customers under either a SRC or a MRC.[52]	• Should the existing standing offer and contract framework be extended to customers in an embedded network seeking to go on-market? • Should a purpose specific Standard Retail Contract (SRC) be developed for inclusion in the NERR as a separate schedule for such customers? • Is the Market Retail Contract (MRC) framework sufficient for making retail

50 A customer is a person to whom energy is sold for premises by a retailer or who proposes to purchase energy for premises from a retailer (s. 5(1) NERL). Premises is not defined in the NERL or NERR. Its plain English meaning is usually a house, building, site or place which will capture the premises associated with a customer on an embedded network.

51 Assuming they purchase energy principally for personal, household or domestic use at premises and consume below relevant consumption thresholds: s. 5(2) NERL)

52 Section 20 NERL.

Relevant aspect of the retail framework	Overview	Issues arising
		offers to customers in an embedded network seeking to go on market?
Market retail offers and contracts	Under the existing retail framework, there is no barrier to a retailer making a market retail offer to a customer in an embedded network seeking to go on-market. Section 33 of the NERL provides: *A small customer and a retailer may, subject to and in accordance with this Division and section 147, negotiate and enter into a market retail contract for the provision of* *(a) customer retail services; and,* *(b) any other services, as agreed between the small customer and the retailer.* However, a retailer will need to ensure that the MRC is not inconsistent with the applicable minimum requirements set out in the NERR.[53] MRCs can also deal with other things so long as the rules do not prohibit such things being dealt with in the contracts.[54] "Subject to and in accordance with this Division" means that any MRC offered to a small customer will need to meet "minimum requirements". The terms and conditions of a MRC have no effect to the extent they are inconsistent with any minimum requirements, and the minimum requirements are to apply to the extent of the inconsistency (unless the terms and conditions provide for a higher level of service to the customer).[55] To be able to offer a valid MRC to a customer on an embedded network, a retailer will need to comply with the minimum requirements set out in the NERR. If it cannot meet these requirements, the retailer will have the following options:	• Are any amendments to the MRC framework necessary to take account of retail contestability in embedded networks? • Are the current minimum requirements set out in the NERR relevant to customers on embedded networks? Are there any additional requirements? Should the application of any of these requirements be amended as they relate to customers in an embedded network seeking to go on market?

53 Section 34(2) NERL which provides the NERR may set out (a) minimum requirements that are to apply in relation to small customers who purchase energy under a market retail contract; and (b) minimum requirements that are to apply in relation to the terms and conditions of market retail contracts.

54 Section 34(3) of the NERL.

55 Section 36 of the NERL.

Relevant aspect of the retail framework	Overview	Issues arising
	a) not offer a MRC at all if it cannot meet the minimum requirements; b) offer a MRC which meets the 'spirit' of the minimum requirements so as to avoid inconsistency; and c) offer a MRC which contains terms and conditions that are better than the minimum requirements in. A range of minimum requirements may give rise to issues in the context of customers on embedded networks and these are discussed below.	
Minimum requirement: Pre-contractual duty of retailers **(NERR rule 16)**	This rule applies where a retailer is contacted by a small customer who is seeking to purchase energy for premises. The rule outlines the obligations for a retailer who is 'the designated retailer for the premises' and for the retailer who isn't. Under the NERL, a designated retailer is defined in terms of where there is and isn't an existing connection in relation to a small customer's premises. Connection is defined as being a 'physical link between a distribution system and a customer's premises to allow for the flow of energy'. There is no physical link between the premises of a customer on an embedded network and the distribution system. Therefore, at pre-contractual stage, there cannot be either a designated or financially responsible retailer for a customer who is seeking to go on market.[56]	• Is a pre-contractual duty of retailers, of the kind provided for under this rule necessary for customers on embedded networks, especially as they are cannot (currently) access standing offers?
Minimum requirement: Contents of bills NERR rule 25	This rule requires a retailer to prepare a bill so that a small customer can easily verify that the bill conforms to their customer retail contract. It outlines what it must include: Relevantly, the bill must include: *(a) tariffs and charges applicable to the customer;*	• In its current form, strict compliance with this rule may be difficult, depending on the arrangements in place between a retailer and the operator of an embedded network.

56 However, once a customer on an embedded network goes on market, the retailer that accepts that customer will; then be the 'financially responsible retailer', this being "the retailer who is the financially responsible Market Participants responsible for the premises under the NER".

Relevant aspect of the retail framework	Overview	Issues arising
	(b) the basis on which tariffs and charges are calculated; *(c) a separate 24 hour telephone number for fault enquiries and emergencies, the charge for which is no more than the cost of a local call, being the telephone number for the distributor and giving the name of the distributor.* This rule is classified as a civil penalty provision.	What amendments are necessary? • Further, contact details of the operator of an embedded network may be more relevant to a customer on an embedded network seeking to go on market. What other changes will be of assistance to customers in embedded networks seeking retail contestability?
Minimum requirement: Tariffs and charges NERR rule 46	This rule provides relevantly: 1. *A retailer must set out in a market retail contract with a small customer all tariffs and charges payable by the customer.* 2. *The retailer must give notice to the customer of any variation to the tariffs and charges that affects the customer.* 3. *The notice must be given as soon as practicable, and in any event no later than the customer's next bill.* 4. *The retailer must set out in the market retail contract the obligations with regard to notice that the retailer must comply with where the tariffs and charges are to be varied.*	• In its current form, strict compliance with this rule may be difficult, depending on the arrangements in place between a retailer and the operator of an embedded network. What amendments are necessary?
Minimum requirement: Liabilities and immunities NERR rule 51	This rule prohibits a retailer from including any term or condition in a MRC with a small customer that limits the liability of the retailer for breach of the contract or negligence by the retailer. This rule is classified as a civil penalty provision.	• Is such a prohibition still relevant in the embedded network context? Are any amendments necessary?

Relevant aspect of the retail framework	Overview	Issues arising
Move-in customer or carry over customer	The NERL deems particular arrangements between the financially responsible retailer and a move-in or carry-over customer.[57] Once a customer on an embedded network goes on market, the relevant premises will be assigned a NMI and have a retailer that is financially responsible for those premises (currently). Such premises could therefore be subject to the move in or carry over arrangements. These arrangements are premised on the basis of the SRC and standing offer framework set out in the NERL (see above).[58]	• Should the move-in or carry-over customer arrangements apply in the situation of an on-market customer in an embedded network? • How should such arrangements apply (if at all)? What changes will be necessary? • Can this issue be addressed through other means?
De-energisation and re-energisation of shared customer's premises	The NERR provides for a how premises can be de-energized (disconnected). A retailer is prohibited from arranging de-energisation of a customer's premises except in accordance with Division 2 of Part 6. This division applies to MRCs and is premised on the basis that the retailer arranges disconnection with a distributor. However, it is the owner of the embedded network that will be responsible for disconnection. Division 4 of Part 6 relates to re-energisation and also applies to MRCs. It, like de-energisation, is premised on the basis that the retailer arranges re-energisation with a distributor. However, it is the owner of the embedded network that will be responsible for re-energisation. These rules are classified as a civil penalty provisions.	• What arrangements need to be in place for the de-energisation and re-energisation of premises of customers in embedded networks who are on-market? • Is there a gap in existing arrangements (including various conditions to exemptions that may be in place) for customers on an embedded network seeking to go on market?
Life support	The NERR provides for various retailer obligations in relation to life support equipment.[59]	• What arrangements need to be in

57 Section 54(1) NERL. Carry-over customer means a small customer who continues consuming energy at premises after the customer's previously current customer retail contract expires or terminates: (a) without provision in that contract for the terms and conditions to apply after expiry or termination for the continued provision of those services; and without applying to a retailer for the provision (after that expiry or termination) of those services. Move-in customer means a small customer who starts consuming energy at premises without first applying to a retailer for the provision of customer retail services, including rules 53 and 54 of the NERR.

58 Including rules 53 and 54 of the NERR.

Relevant aspect of the retail framework	Overview	Issues arising
equipment	Many of these obligations require notification to a distributor. However, it is the owner of the embedded network that has similar responsibilities to that of a distributor in relation to life support equipment, which obligations are usually addressed in conditions applying to the exemptions held by embedded network owners. The rule applies to any MRC and is a civil penalty provision.	place for life support equipment for customers in embedded networks who are on-market? • Is there a gap in existing arrangements (including various conditions to exemptions that may be in place)?
Retailer of last resort (RoLR)	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 retailer contract.[60] The prices that are applicable are the relevant designated RoLR's standing offer prices.[61]That is, the current RoLR arrangements are premised on the basis of the SRC and standing offer framework set out in the NERL (see above). Currently, the retail exemption guideline makes little provision for the eventuality of exempt seller failure.	• What arrangements should be in place for customers in embedded networks who are on-market in the event of retailer failure? • Is there a gap in existing arrangements (including various conditions to exemptions that may be in place)? • Should these gaps be addressed in the retail framework? Are there other avenues (e.g. network service provider exemptions)? • Are there other gaps in the RoLR arrangements arising in relation to customers in embedded networks who are on-market in the event of retailer failure (e.g. RoLR regulatory

59 NERR rule 124

60 Section 145(3) NERL

61 Section 145(4) NERL.

Relevant aspect of the retail framework	Overview	Issues arising
		information notices)?
Presentation of market offer prices	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.[62] Market offer prices are the tariffs and charges that a retailer charges a small customer for or in connection with the sale of energy to a small customer under a market retail contract.	• Depending on the arrangements in place between a retailer and the operator of an embedded network, a retailer may not necessarily be able to present any offer to customers on embedded networks in accordance with such requirements. What requirements should be in place for the presentation of such offers? Are the AER Guidelines able to sufficiently address this?
Explicit informed consent (EIC)	Currently the entry by the customer into a market retail contract with the retailer is a transaction that needs EIC.[63] As customers in embedded networks seeking to go on market are likely to be offered MRCs (subject to any change to the SRC framework- see above) EIC will be necessary for the entry into such contracts.	• Are the current EIC requirements appropriate?

62 Section 61 NERL.

63 Section 38 NERL.