REPORT ON INSET (OR EMBEDDED) ELECTRICITY NETWORKS

Report prepared by the Small Business Commissioner for the Minister for Small Business
October 2016
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Appendix A: Australian Energy Regulator’s Issues Paper –
Draft Amendments to the Electricity Network Service Provider
Registration Exemption Guideline dated August 2016

Appendix B: Australian Energy Regulator’s Draft Guideline -
Exemption from registration as a Network Service Provider
dated 18 August 2016
1. The Office of the Small Business Commissioner

The Office of the Small Business Commissioner (OSBC) was created by the South Australian Government in March 2012 primarily to assist small business. As an independent statutory authority, the OSBC monitors and works with small businesses to resolve disputes with other small businesses, landlords and Local and State Government bodies across the State.

Services provided by the OSBC include:

- Receiving and investigating complaints made by or on behalf of small businesses regarding their commercial disputes with other small businesses, landlords and Local and State Government bodies across the State;

- Facilitating the resolution of such complaints through measures considered appropriate by the Commissioner. Such measures include mediation and making representations on behalf of small business;

- Monitoring, investigating and enforcing non-compliance with Industry Codes (where prescribed) that may adversely affect small business; and

- Investigating market practices that may adversely affect small business.

The Small Business Commissioner is responsible for:

- Providing independent advice and recommendations to the Government of the day in relation to small business issues;

- Making representations to the Minister and other groups as required;

- Making submissions to relevant inquiries and matters at various levels; and

- Advocating for the sector.
2. Terms of Reference of Inquiry

The objective of the Inquiry is to gain a clear understanding of the ways in which inset or embedded electricity networks operate in the following three areas:

- shopping centres;
- office or commercial buildings; and
- industrial parks.

Caravan parks will not fall within the scope of this Inquiry because they generally operate in a non-business consumer to business context.

The Inquiry will examine and prepare a report for the Minister for Small Business outlining:

- Pricing arrangements currently in place for different inset networks and for different inset customers;
- Methodology employed by inset operators to determine pricing of electricity delivered through their inset network;
- Ability for inset customers to purchase electricity from providers other than the operator of the inset network; and
- Recommendations to ensure transparency and fairness of electricity reselling in this area.

The Inquiry will consult widely with inset network operators and inset customers within a business to small business context. The Inquiry will also liaise with the Essential Services Commission of South Australia.

3. Introduction

Embedded networks are private electricity networks serving multiple premises located within and connected to a distribution or transmission system through a parent connection point in the National Electricity Market (NEM). Within an embedded network, the embedded network operator provides embedded network customers with network services. Many embedded network operators also sell electricity to embedded network customers.¹

The State Government’s Inquiry into Inset (or Embedded) Electricity Networks was announced by the former Minister for Small Business, the Hon Tom Koutsantonis MP, on 18 December 2012. The Minister said:

“The objective of this Inquiry is to gain a clear understanding of the ways in which inset or embedded electricity networks operate in South Australia.”

The review will look at arrangements and the different methods used to determine the power prices charged to business operators as well as any anti-competitive behaviour.

This Inquiry will consider whether there has been any inappropriate use of the imbalance of bargaining power to the detriment of small business tenants, and provide recommendations on how to prevent this occurring in future.”

Shortly after the Inquiry was announced, regulatory responsibility for inset schemes was transferred from the Essential Services Commission of South Australia (ESCOSA) to the national Australian Energy Regulator (AER) in February 2013.

As this Report will show, the embedded network regulatory regime has continued to evolve during the course of the Inquiry.

Preliminary observations on the inquiry have been contained in each of the annual reports for the Office of the Small Business Commissioner in 2013/14, 2014/15 and 2015/16 and this final report reflects the evolution of this particular aspect of the energy market.

A more recent development has been the Australian Energy Market Commission’s (AEMC’s) publication of the final rule relating to embedded networks on 17 December 2015. The final rule specifies that the new version of the National Electricity Rules will start on 1 December 2017. Further details of the rule change can be found under section 4 of this Report.

The publication of the final rule relating to embedded networks and the completion of the OSBC’s investigations into embedded networks in South Australia has enabled the Small Business Commissioner to provide this report to the Minister.

4. Submissions and Consultation

Submissions to the Inquiry closed on 21 February 2013. A total of four formal submissions were received by the OSBC, which are summarised below.

**WINenergy Pty Ltd dated 14 February 2013**

WINenergy Pty Ltd (WE) submitted that customers of embedded network operators (ENO) should be afforded the same rights, protections and access as customers of energy retailers with respect to:

- choice of retailer;
- pricing protection;
- access to an Ombudsman scheme for dispute resolution purposes; and
- access to financial hardship programs.

In relation to consumer protection, WE said:
“This situation should be largely remedied with the introduction of the National Energy Retail Law (NERL) and Rules (together ‘NECF’) on 1 February 2013. Under the NECF, embedded network residential and small business customers are entitled to all the consumer protections just like the customers of authorised energy retailers.”

In relation to the registration of Embedded Network Operators (ENOs), WE submitted that all stakeholders, including embedded network customers, regulators and relevant government authorities, would benefit from a strong registration requirement for ENOs operating in the South Australian market.

**Australian Newsagents’ Federation Ltd dated 20 February 2013**

The Australian Newsagents’ Federation Ltd (ANF) found that inset electricity charging affects a small subset of their members in shopping centres. Within that small subset, ANF found inconsistencies in the approach of landlords charging, providing clear information and the range of costs.

Four members provided information on their pricing arrangements. ACF said it appears that those members have little or no choice but to purchase power through the inset arrangement in the shopping centre where they operate their business.

**Property Council of Australia dated 21 February 2013**

In its covering letter, the Property Council of Australia (PCA) said:

“At the outset the Property Council wishes to clearly state that it is of the view that this inquiry is not necessary, given the operation of inset networks in South Australia occurs generally without complaint, and also because matters governing their operation are now the responsibility of the national Australian Energy Regulator (AER).

… we remain confused as to the purpose of this review, and what the Deputy Commissioner is trying to achieve, given that there has been no issues paper released to which we can respond and the published terms of reference are vague.”

The PCA pointed out that there is a significant amount of regulation in relation to embedded networks at the state level as well as the national level with the move of regulatory power to the AER.

The PCA concluded by saying:

“Given the volume of regulation that governs the establishment and operation of inset networks in South Australia, the Property Council is surprised the Small Business Commissioner is investing such a volume of time and resources in the matter. Particularly in the absence of an issues paper or direction as to the nature of the information the Commissioner is seeking.”

**Shopping Centre Council of Australia dated 21 February 2013**
The Shopping Centre Council of Australia (SCCA) was “puzzled” by the reasons for the Inquiry, pointing out that the operation of inset schemes remains the subject of extensive regulation. The SCCA went on to say:

“We must highlight our concerns with the basis of the Inquiry which appears to be a handful of misconceptions and unsubstantiated allegations against inset scheme operators, potentially raised through the Energy Consumers’ Council (on which SCCA is not represented). The Government has called for “facts, figures, data, examples and documents” in submissions, but hasn’t produced any information about the basis of the Inquiry or the issues.

We request that the Commissioner notes our concerns in his final report to the Minister.”

SCCA was involved in the development of the AER’s Exempt Selling Guidelines (December 2011). SCCA supports the national approach to the regulation of inset schemes to improve certainty, consistency and efficiency.

SCCA recommended the continuation of the AER framework for the regulation of inset schemes in South Australia.

The former Small Business Commissioner, Mike Sinkunas, consulted with a range of energy retailers and distributors between July and October 2013 to obtain information relating to offers suitable for inset electricity business customers in South Australia. The responses received are summarised below.

**SA Power Networks**

SA Power Networks provided the following information by way of email dated 8 July 2013:

“Generally SA Power Networks does not install type 4 metering for inset (child) customers as their retailers organise the metering and they have contracted meter providers.

The small customers within the inset network generally have the landlord’s metering (type 6) and this is definitely a service we do not provide.”

**AGL**

In its letter to the Small Business Commissioner dated 23 July 2013, AGL advised that inset network customers who are able to access the competitive electricity market can select from AGL’s range of Retail Offers for Small Business in SA which are published on its website.

AGL went on to say:
“AGL may also enter into contracts with inset network providers for the supply of energy to a metering point at the gate to the inset network. These contracts are for the supply of bulk electricity at high or low voltage, or gas, and these contracts are confidential commercial agreements. In these cases AGL has no relationship with the customer to whom the inset network operator onsell[s] to.”

**Powerdirect**

In an email dated 23 July 2013, AGL (on behalf of Powerdirect) advised that Powerdirect is a wholly owned subsidiary of AGL which does not own or operate inset networks. As with AGL, inset network customers who are able to access the competitive electricity market can select from Powerdirect’s range of Retail Offers for Small Business in SA which are published on its website.

**Red Energy**

Red Energy advised by letter dated 26 July 2013 that it does not offer products suitable for inset electricity business customers in South Australia.

**Origin Energy**

By letter dated 12 August 2013, Origin Energy (Origin) confirmed that it provides offers suitable for inset electricity business customers, and gave the following details:

“We provide electricity to the gate meter (Parent National Metering Identifier) of the network connection to the embedded (or inset) network. The private network operator is then responsible for the downstream activities with the end use customers (Child NMIs in a private network). This arrangement is implemented with the Local Network Service Provider – SA Power Networks in South Australia – with the private network customers having their electricity consumption measured and billed by the private network operator.

In the event that a Child NMI wishes to purchase electricity from a party other than the embedded network operator, we facilitate this outcome by deducting that Child NMI’s load from the Parent NMI when Origin is the Retailer to the private network (Local Retailer role). We do not currently undertake retailing directly to Child NMIs unless selected as the retailer of choice. In this scenario the customer would be registered in the National Energy Market and Origin assigned as the Financially Responsible Market participant with metering installed consistent with the National Electricity Rules.”

**Diamond Energy**
Diamond Energy advised by email dated 1 October 2013 that it has one inset electricity customer in South Australia supplying electricity to a retirement villages, which falls outside of the Terms of Reference of the Inquiry.

QEnergy

QEnergy advised by email dated 1 October 2013 that it does not offer products suitable for inset electricity business customers in South Australia.

Lumo Energy

Lumo advised by letter dated 11 October 2013 that it does not provide any products tailored specifically for inset electricity business customers. Lumo went on to provide the following information:

“When an existing customer of Lumo Energy adds a premise which is an inset or embedded network we engage with the current embedded network provider, i.e. WINenergy, and manually process the customer’s invoices. This occurs by exception rather than ‘by design’. We only take these premises on board if our existing customer specifically requires it.”

5. Overview of the Regulatory Framework

At the time when this Inquiry was announced in December 2012, regulatory responsibility for embedded networks rested with ESCOSA. Responsibility was transferred from ESCOSA to the AER on 1 February 2013 as part of the State Government’s adoption of the National Energy Customer Framework (NECF).

The NECF is a national regime for the sale and supply of electricity and gas by distributors and retailers to retail customers. The NECF regulates the sale and supply of energy through a set of national rules. The Australian Energy Market Commission (AEMC) is the responsible rule-making body for these rules.

The Power of choice review was undertaken by the AEMC in response to a request from the Standing Council on Energy and Resources (SCER) (now called the Council of Australian Governments (COAG) Energy Council) in March 2011. A final report on the Power of choice review was released by the AEMC on 30 November 2012. The report provides details of a substantial reform package for the National Electricity Market (NEM). The AEMC said:

“The final recommendations are a package of reforms designed to increase the responsiveness of the demand side to evolving market, technological
On 1 October 2014, the Australian Energy Market Operator (AEMO) wrote to the AEMC to request consideration of a rule change relating to embedded networks pursuant to section 91 of the National Electricity Law (NEL).

The AEMC began consultation on the regulatory arrangements for embedded networks on 21 May 2015, and published the final rule on 17 December 2015. The AER assisted the AEMC in the development of the rule change proposal.

The AER made the following comments in its submission to the AEMC’s consultation paper dated 26 June 2015:

“At the AER we have received numerous reports of difficulty in assessing retail competition from customers in embedded networks.

This rule will address aspects of the NEM framework that have not adequately supported access to retail competition by customers in embedded networks. We consider the major issue is centred on the existence of appropriate metering arrangements, capable of integration into the broader market systems.”

The AEMC states that the final rule will reduce barriers to embedded network customers accessing offers from electricity retailers in the competitive retail market. The final rule determination makes it easier for embedded network customers to choose an alternative electricity supplier, while remaining part of the embedded network. It is expected to provide a clear, understandable and transparent framework for embedded networks.

The objective of the final rule is to enable embedded network customers to participate in the electricity market by allowing them to choose the products, services and suppliers of electricity services that suit them best.

The rule change does not prevent embedded network operators from continuing to sell embedded network customers electricity. Instead, the rule change will provide them with a greater incentive to compete with retailers.

The rule change also creates a new accredited provider role of embedded network manager to be responsible for performing market interface services for embedded network customers. The detailed functions, procedures, governance arrangements and criteria for when an embedded network manager must be appointed will be set out in AEMO procedures which have not yet been released, and the AER’s network exemption guideline, which is to be amended in December 2016 in light of the rule change.

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The final rule change also sets out a timeline for implementing the proposed changes as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tr>
<td>17 December 2015</td>
<td>AEMC published final determination and rule</td>
</tr>
<tr>
<td>1 September 2016</td>
<td>AEMO to finalise systems and procedures changes</td>
</tr>
<tr>
<td>1 December 2016</td>
<td>AER to finalise ring fencing and network exemption guidelines</td>
</tr>
<tr>
<td>1 March 2017</td>
<td>AEMO to finalise embedded network manager services level (and accreditation) procedures</td>
</tr>
<tr>
<td>1 December 2017</td>
<td>Embedded network framework commences, requiring relevant embedded network operators to appoint an embedded network manager</td>
</tr>
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The AEMC has recommended separate but supporting changes to state and territory legislation, and a review of the National Energy Retail Rules for embedded network customers, with the aim of further decreasing barriers to embedded network customers accessing retail market offers.

The final rule specifies that the new version of the National Electricity Rules will start on 1 December 2017.

The AER is responsible for administering the exemptions framework under the NEL as outlined in the Network Service Provider Registration Exemption Guideline (Network Guideline). The Network Guideline relates to privately owned embedded or exempt networks. A private network is any network supplying electrical energy to a third party, but not a transmission or distribution network registered with the AEMO. Under the NEL and the National Electricity Rules (NER), a party that engages in electrical distribution activity must either be registered with the AEMO as an electricity distributor or obtain an exemption from the AER.

The vast majority of exemptions are for exempt Network Service Providers (NSPs) that own, operate or control embedded network that cover a single site, such as shopping centres, apartment buildings, caravan parks and retirement villages.

On 18 August 2016, the AER published an Issues Paper “Draft Amendments to the Electricity Network Service Provider Registration Exemption Guideline” (Appendix A) with an accompanying draft “Guideline Exemption from Registration as a Network Service Provider” (Appendix B) for consultation.

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4 Ibid, piili.
The Small Business Commissioner notes the following relevant observations made by the AER at page 9 of the Issues Paper:

“Anecdotal reports suggest some embedded network operators actively resist providing access to the metering installation by customers and/or competing retailers and some may prevent their customers accessing their billing information. They may also seek to prevent their customers obtaining better prices in those jurisdictions that allow access to retail competition through parent/child metering. These practices, where they occur, are breaches of the AER’s conditions for exemption of the network. Where this is occurring, the registration of the exempt embedded network is invalid. Operating an embedded network without a valid AER exemption is subject to severe penalties under the NEL.”

Submissions on the proposed amendments close on 10 October 2016. The revised Network Guideline will take effect on 1 December 2016 (one year earlier than the AEMC’s embedded network rule change).

6. Operation of Embedded Networks in South Australia

The Small Business Commissioner met with ESCOSA on 8 January 2016 and the AER on 9 February 2016 to obtain information on the operation of embedded networks in South Australia. Following both meetings, the Small Business Commissioner requested further information and statistics for the purpose of this report. The responses from both organisations are summarised below.

Essential Services Commission of South Australia

ESCOSA provided the OSBC with a large sample of enquiries and complaints received between 2006 and 2013 while ESCOSA had regulatory responsibility for embedded networks in this State. As this information was provided on a confidential basis, the Small Business Commissioner sought ESCOSA’s permission to provide a general overview of the information received.

Queries and complaints related to embedded networks operating predominately in caravan parks, commercial buildings and shopping centres. A broad range of issues were raised, including:

- rates of electricity charging within the embedded network;
- on-selling of electricity by the embedded network operator;
- ability of the embedded network customer to access a retailer of choice;
- ability of the embedded network customer to establish a National Meter Identifier (NMI); and
- the lack of transparency in embedded network customers’ electricity bills.

The Small Business Commissioner notes that these issues remain relevant today, and have been raised in the two OSBC case studies which are set out under this section of the Report.
In its Final Report on the review of the operation of the National Energy Retail Law in South Australia dated April 2016, ESCOSA noted that retailer operational performance information relating to the number and value of embedded electricity generation is not being collected by the AER.²

**Australian Energy Regulator**

In its letter to the Small Business Commissioner dated 23 March 2016, the AER advised that:

“Since the commencement of the National Energy Retail Law in South Australia on 1 February 2013, we have taken compliance action in approximately 28 matters related to embedded networks. Only three of these involved South Australian energy sellers.

The most common complaints about embedded networks relate to failure by an onseller to register for a retail and/or network exemption, (lack of) access to retail competition, and failure to comply with exemption conditions, particularly those on billing and payment arrangements, fees and charges, information provision and dispute resolution. This number does not include any straight-forward requests, dealt with on the spot.

More broadly, we cannot quantify the exact number of complaints received about embedded networks as these come into the AER through a range of channels and are frequently dealt with in a single telephone conversation.”

The AER provided a number of complaint case studies to help illustrate the types of problems which the AER see with embedded networks. The issues raised were very similar to those raised in the sample of complaints and queries provided by ESCOSA and also in the OSBC case studies.

The AER recently provided the Small Business Commissioner with an update, advising that as of 15 September 2016, the Regulator had taken compliance action in approximately 46 matters related to embedded networks. Five of those complaints involved South Australian energy sellers.

The AER provided details of the enforcement action taken against property company Stockland Corporation Ltd (Stockland) in September 2016 for selling electricity without holding either a retailer authorisation or a retail exemption as required by the National Energy Retail Law. Stockland paid infringement notice penalties totalling $100,000. Stockland also provided the AER with the following undertakings:

- that it will not sell energy without a valid authorisation or exemption; and
- that it will implement a Retail Law compliance program which will be subject to independent oversight.

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Further details of the enforcement action taken against Stockland can be found on the AER’s website.\textsuperscript{8}

**Complaints received by the Office of the Small Business Commissioner**

The Small Business Commissioner notes that there has been a distinct lack of complaints received by the OSBC in relation to embedded networks in comparison with other areas of small business.

Since the Inquiry was announced in 2012, the OSBC has dealt with only two embedded network complaints in 2015 and 2016 respectively. Those matters are set out as case studies below.

**OSBC Case Study One**

An embedded network customer (lessee) operating a retail shop in a shopping centre contacted the OSBC in June 2015 with a complaint against the embedded network operator (lessor).

The issues raised by the embedded network customer related to the allocation of charges between the tenants in the shopping centre, and the extent of those charges for the use and distribution of electricity to the common areas. The embedded network customer also raised concerns in relation to the amount the company was charged for network and other tariff charges incurred by the shopping centre as a whole.

The OSBC made extensive enquiries with the embedded network operator, who provided detailed information and documentation relating to the embedded network charges within the shopping centre.

Based on the information provided, the Small Business Commissioner formed the view that the company’s share of the grouped outgoing charges was correct and that on-charging of electricity for the common areas had been robustly calculated. In light of this finding, the embedded network customer was satisfied with the investigations carried out with the OSBC, and the matter was closed in November 2015.

**OSBC Case Study Two**

In May 2016, an embedded network customer (lessee) with a number of tenancies in a retail shopping centre contacted the OSBC to enquire about accessing electricity directly from a retailer given the recent rule change in relation to embedded networks.

The embedded network customer requested that the embedded network operator (landlord) provide transparent information relating to its embedded network electricity charges and options for the supply of electricity to its tenancies. Concerns were also

\textsuperscript{8} \url{https://www.aer.gov.au/news-release/stockland-pays-100-000-in-penalties-for-allegedly-selling-energy-without-appropriate-authorisation}
raised in relation to the profit made by the embedded network operator from on-selling electricity to tenants in the shopping centre.

The OSBC sought detailed information from the embedded network operator, as well as SA Power Networks and the AER, in order to answer the embedded network customer’s queries.

Enquiries with the AER confirmed that an operator of an embedded network cannot obstruct a tenant from choosing an alternative energy supplier. The AER advised that a landlord must allow a tenant to use the infrastructure that already exists, including the meter. However, if the meter is not NMI compliant (pre-2012) then the tenant is responsible for the cost of installing a new meter.

The parties attended a meeting on 26 September 2016, together with representatives from SA Power Networks and the AER, to discuss how the embedded network customer can arrange access to electricity from a retailer of choice. The Small Business Commissioner is currently in the process of obtaining further information from the embedded network operator in relation to its infrastructure and metering. In light of this, the matter remains ongoing at the time of writing this report.

7. Findings and Observations

Findings

Given the regulatory changes which have reduced the barriers customers in embedded networks face in accessing retail competition, and the lack of information provided to the Inquiry by those parties directly affected, this Report is forward-focused. The Small Business Commissioner acknowledges that some of the Terms of Reference have not been fully responded to as a result.

The Small Business Commissioner finds that the issues raised in the Terms of Reference of this Inquiry have largely been addressed for the following reasons:

- the shift of regulatory responsibility from ESCOSA to the AER on 1 February 2013;
- the rule change in relation to embedded networks as published by the AEMC on 17 December 2015 (with the rule change scheduled to commence on 1 December 2017); and
- the views expressed in the submissions to this Inquiry.

In light of this, the Small Business Commissioner is of the view that no further action is required on the part of the State Government, other than consideration of the Small Business Commissioner’s recommendations set out below. However, the Small Business Commissioner will continue to monitor issues as they arise, work with small businesses involved in embedded network disputes or pricing issues, and recommend further changes to Government where appropriate.
Observations

The Small Business Commissioner notes that information, complaints and queries relating to embedded networks are not being effectively captured and recorded by the AER. The Commissioner is of the view that it would be worthwhile for this information to be recorded and made publicly available to increase the level of transparency in the regulation and operation of embedded networks.

In terms of educating stakeholders on the rule change, it is not clear from the AEMO’s publications and information on its website as to what will be offered by way of education to ensure that all stakeholders are aware of the impending changes and new regulatory requirements. Discussions with the parties in case study two (referred to in section 6 of this Report) confirm that neither the embedded network operator nor the embedded network customer were initially aware of the rule change. The Commissioner believes that it may be worthwhile for the State Government to consider ways to assist in the education of stakeholders of embedded networks in South Australia.

The Small Business Commissioner takes this opportunity to raise his concerns in relation to length of time taken for the rule change to commence, which in the case of embedded networks is two years. It is arguable that such a lengthy timeframe can lead to confusion as to the regulatory requirements of stakeholders at a particular time within that two year period. It also means that stakeholders are unable to fully access the benefits of the rule change until it comes into effect. In light of this, the Commissioner suggests considering shortening the timeframe of the rule change.

Finally, the Small Business Commissioner notes that where issues have been identified in relation to embedded networks, the AER has the ability to take enforcement action, as demonstrated in the recent case of Stockland Corporation Ltd. The Commissioner is therefore satisfied that the regulatory regime for embedded networks under the National Electricity Law is working effectively.

8. Recommendations

Notwithstanding the finding that the Terms of Reference of the Inquiry have been addressed, the Small Business Commissioner makes the following recommendations for the Minister’s consideration:

1. That the State Government request that the AER keep statistics in relation to embedded network enquiries and complaints, and that the information be made publicly available.

2. That the State Government consult with the Federal Government on the development of an education program to ensure distributors, retailers, embedded network operators and embedded network customers have an
understanding of the requirements set out in the AEMC’s final rule determination and the AER’s revised network exemption guideline (once it has been published in December 2016).

3. That consideration be given to requesting the national regulators amend the timeframe of the rule change, with a view to shortening it in order to increase certainty of regulatory requirements and allow stakeholders to access the benefits of the rule change sooner.

John Chapman
SMALL BUSINESS COMMISSIONER

14th October 2016
Issues Paper
Draft Amendments to the Electricity Network Service Provider Registration Exemption Guideline
August 2016
Request for submissions

Interested parties are invited to make written submissions to the Australian Energy Regulator (AER) regarding this paper by the close of business, **10 October 2016**.

Submissions should be sent electronically to: aerinquiry@aer.gov.au

Alternatively, submissions can be mailed to:

Mr Chris Pattas  
General Manager, Networks  
Australian Energy Regulator  
GPO Box 520  
Melbourne VIC 3001

The AER prefers that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested.

Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on the AER's website at www.aer.gov.au. For further information regarding the AER's use and disclosure of information provided to it, see the *ACCC/AER Information Policy*, June 2014 available on the AER's website.

Enquiries about this paper, or about lodging submissions, should be directed to the Network Regulation branch of the AER on (03) 9290 6984.

Throughout the document we ask questions to help focus submissions. For convenience, a full list of consultation questions are provided in section 6 (page 30).
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## Glossary

This issues paper uses the following definitions

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<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABN</td>
<td>Australian Business Number</td>
</tr>
<tr>
<td>ACN</td>
<td>Australian Company Number</td>
</tr>
<tr>
<td>AEMO</td>
<td>Australian Energy Market Operator</td>
</tr>
<tr>
<td>AER</td>
<td>Australian Energy Regulator</td>
</tr>
<tr>
<td>ACCC</td>
<td>Australian Competition and Consumer Commission</td>
</tr>
<tr>
<td>ASIC</td>
<td>Australian Securities and Investments Commission</td>
</tr>
<tr>
<td>Body Corporate</td>
<td>Means a controlling body of a scheme constituted under state or territory strata titles legislation, the members of which are lot owners (or their representatives), and includes an owners corporation but is not a body corporate for the purposes of the Corporations Act 2001 (Cth).</td>
</tr>
<tr>
<td>Customer</td>
<td>Means a consumer of electricity for primary industry, domestic, commercial or industrial use but does not include a wholesale market customer who is registered by AEMO as a Customer under Chapter 2 of the NER.</td>
</tr>
<tr>
<td>Eligible community</td>
<td>Has the meaning given in conditions 4.7.1.1 and 4.7.2.</td>
</tr>
<tr>
<td>Embedded network</td>
<td>Has the meaning specified in chapter 10 of the NER.</td>
</tr>
<tr>
<td>Embedded network manager</td>
<td>Has the meaning specified in chapter 10 of the NER.</td>
</tr>
<tr>
<td>Energy</td>
<td>Means electricity</td>
</tr>
<tr>
<td>Exempt embedded network service provider</td>
<td>Has the meaning specified in chapter 10 of the NER.</td>
</tr>
<tr>
<td>Exempt network</td>
<td>See private network</td>
</tr>
<tr>
<td>GWh</td>
<td>GigaWatt hour</td>
</tr>
<tr>
<td>Large customer</td>
<td>Means a business customer who consumes energy at business premises at or above the upper consumption threshold, as defined by the relevant jurisdiction. If no threshold is defined, 100 megawatt hours per annum for electricity.</td>
</tr>
</tbody>
</table>
Large corporate entity

A ‘large proprietary company’ as defined under clause 45A(3) of the Corporations Act 2001 or, if not a reporting entity under that Act, an unlisted company, trust, or other legal entity which fulfils the financial and/or staffing criteria specified in clause 45A(3) of that Act.

Meter

Means any device (compliant with metrology requirements and Australian standards) that measures the quantity of energy passing through it or records the consumption of energy at the customer’s premises.

MWh

MegaWatt hour

NEL

National Electricity Law

NER

National Electricity Rules

Off–market energy generation

Means an energy generation option not required to be registered with AEMO under clause 2.5.2 of the NER and applicable AEMO guidelines.

Note: The category includes – but is not limited to – small scale diesel, petrol, bio–fuel, gas (including coal–seam and other methane sources), inverter, fuel cell, an electric vehicle inverter, thermal–electric, geothermal, solar (including photovoltaic), wind or hydro generation and cogeneration and tri–generation installations.

On–market energy generation

Means an energy generation option required to be registered with the AEMO under clause 2.5.2 of the NER and applicable AEMO guidelines. This category includes the four AEMO registration categories of scheduled generation, non–scheduled generation, market generation and non–market generation.

Note: The category includes – but is not limited to – small scale diesel, petrol, bio–fuel, gas (including coal–seam and other methane sources), inverter, fuel cell, an electric vehicle inverter, thermal–electric, geothermal, solar (including photovoltaic), wind or hydro generation and cogeneration and tri–generation installations. Typically, this category relates to generation systems of 30MW or greater capacity.

On–selling, selling

On–selling or selling means an arrangement where a person acquires energy from a retailer following which the person acquiring the energy or a person acting on their behalf sells energy for use within the limits of premises owned, occupied or operated by the person.

Parent connection point

Has the meaning specified in chapter 10 of the NER.

Private network

Means any network connected to the NEM or an islanded network subject to regulation under the NER, supplying electrical energy to a third party, but not a transmission or
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private network operator</td>
<td>See: exempt embedded network service provider</td>
</tr>
<tr>
<td>Public Register</td>
<td>Public Register of network exemptions</td>
</tr>
<tr>
<td>Residential customer</td>
<td>Means a customer who purchases energy principally for personal, household or domestic use at premises.</td>
</tr>
<tr>
<td>Responsible person</td>
<td>Has the meaning specified in clause 7.2.1(a) of the NER. For the purposes of condition 4.2.2.3, a relevant exempt embedded network service provider is deemed to the responsible person.</td>
</tr>
<tr>
<td>Retailer</td>
<td>Means a person who is the holder of a retailer authorisation for the purposes of section 88 of the Retail Law.</td>
</tr>
<tr>
<td>Retail Law</td>
<td>National Energy Retail Law</td>
</tr>
<tr>
<td>Sell</td>
<td>The provision of electricity in exchange for money.</td>
</tr>
<tr>
<td>Small customer</td>
<td>Means a customer— who is a residential customer, or who is a business customer who consumes energy at business premises below the upper consumption threshold, as defined by the relevant jurisdiction. If no threshold is defined, 100 megawatt hours per annum for electricity.</td>
</tr>
</tbody>
</table>
Background

1.1 Purpose of this issues paper

On 17 December 2015, the Australian Energy Markets Commission (AEMC) released the Embedded Networks Final Rule Determination, which aims to reduce the barriers customers in embedded networks face in accessing retail competition. This issues paper sets out our proposed changes to the Network Guideline in response to the AEMC’s determination and recommendations and submissions from stakeholders during the course of the Embedded Network rule change determination process. We also outline a number of other administrative changes.

Under Section 11(2) of the National Electricity Law (NEL) a person must not engage in the activity of owning, controlling or operating, a transmission system or distribution system that forms part of the interconnected national electricity system unless the person is a Registered participant in relation to that activity, or the person is exempted by the Australian Energy Regulator (AER) from the requirement.

This section (and the others that form Division 1 of Part 2 of the NEL) establishes two parallel regulatory frameworks for the regulation of network assets:

- Transmission Network Service Providers (TNSPs) and Distribution Network Service Providers (DNSPs), as registered with Australian Energy Market Operator (AEMO), are regulated under the relevant provisions of the NEL and National Electricity Rules (NER).
- Exempt Network Service Providers (exempt NSPs), as exempted by the AER, are regulated primarily according to the AER Electricity Network Service Provider Registration Exemption Guideline (the Network Guideline).

The AER is responsible for administering the exemptions framework under the NEL as outlined in the Network Guideline. In accordance with rule 2.5.1 of the National Electricity Rules (NER), the Network Guideline sets out the criteria for eligibility for an exemption and the conditions that exemption holders must comply with. The vast majority of exemptions are for exempt NSPs that own, operate or control 'embedded networks' that cover a single site (e.g. shopping centres, apartment buildings, caravan parks and retirement villages).

When the rule change commences on 1 December 2017, it will establish a new accredited service provider, the Embedded Network Manager (ENM), who will help to facilitate the transfer of customers between different energy sellers. The rule change also includes a provision (r. 11.87.4) that the AER revise the Network Guideline by 1 December 2016 to reflect the changes made to the NER concerning Embedded Networks and the appointment of an ENM. The task of the ENM is highly technical and specialised. It is a role that can only be carried out by a qualified service provider who has completed an AEMO accreditation course.

This guideline will take effect on 1 December 2016, one year earlier than the rule change. This is to allow time for accredited ENMs to become familiar with the AER's requirements.
1.2 The Embedded Networks rule change

1.2.1 Access to retail competition under current regulations

Stated simply, an embedded network is formed when a 'parent' or 'gate' meter is placed between meters of multiple customers and the poles and wires that form part of the national grid. This simple act transforms all the electrical distribution system on the customer’s side of the parent meter into an embedded network and the customers' meters into 'child' meters. Figure 1.1 illustrates an embedded network in an apartment block.

**Figure 0.1 Example of an embedded network**

Most electricity customers are not within embedded networks. For customers outside of embedded networks, the direct supply of electricity to the premises is managed by the DNSP and the costs of electricity consumption are payed to an authorised retailer of choice (where more than one retailer operates).

In contrast, customers in embedded networks usually have their direct supply of electricity to the premises managed by the exempt NSP who also sells them electricity as an exempt seller (being exempted by the AER from the requirement to hold a retailer authorisation under Section 88 of the National Energy Retail Law). This type of energy sale is referred to as off-market.

The third possible scenario is that a customer in an embedded network has supply managed by the exempt NSP but purchases electricity for consumption from an authorised retailer. As the embedded network customer is purchasing energy from the wider energy market beyond the embedded network, this is referred to as on-market.

In each of the three possible scenarios, services are handled by different service providers in accordance with differing regulatory requirements. Regulation of services for customers outside embedded networks is provided by the NER and the National Energy Retail Rules (NERR). Similarly, regulation of services for off-market embedded network customers is provided by the AER's exemption framework under the Network Guideline and Exempt
Selling Retail Guideline (the Retail Guideline). However, regulation is unclear for on-market embedded network customers and this uncertainty acts as a barrier for customers in embedded networks seeking to become on-market customers. This is best illustrated by the Table 1.1 below.

**Table 0.2 Legal instruments and service providers of electricity services**

<table>
<thead>
<tr>
<th>Service</th>
<th>Off-market embedded network customers</th>
<th>On-market embedded network customers</th>
<th>Customers outside of embedded networks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service provider</td>
<td>Instrument</td>
<td>Service provider</td>
</tr>
<tr>
<td>Network</td>
<td>Exempt NSP</td>
<td>Network Guideline</td>
<td>Exempt NSP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DNSP</td>
</tr>
<tr>
<td>Metering</td>
<td>Exempt NSP</td>
<td>Network Guideline</td>
<td>Accredited providers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market interface</td>
<td>Not required</td>
<td>Not required</td>
<td><strong>No party is responsible</strong></td>
</tr>
<tr>
<td>Retail (sale of electricity)</td>
<td>Exempt NSP</td>
<td>AER exempt selling (retail) guideline</td>
<td>Retailers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### 1.2.2 AEMC Final Rule Change Determination

The AEMC undertook a rule change determination process that sought to increase access to retail competition for customers in embedded networks by creating a new accredited service provider, the Embedded Network Manager (ENM), to be responsible for market interface services for on-market embedded network customers. The final rule change provided that the AER amend the Network Guideline to incorporate the NER amendments relating to the ENM and publish the revised guideline by 1 December 2016.

The AEMC rule change is quite extensive. It addresses matters which fall both within the scope of the AER network exemption guideline and a range of further matters which affect the market settlement system, and service provider accreditation requirements administered by AEMO.
In this section we focus only on those elements of the rule change which have direct relevance to the amendments we propose to the AER guideline. A full copy of the rule change may be viewed at the AEMC website.¹

The central change of concern for the Network Guideline is the addition of clauses (d1) and (d2) to rule 2.5.1 (d) of the NER. There are also a number of relevant definitions that have been added to Chapter 10 of the NER. This includes the ENM conditions and ENM conditions trigger referred to in clauses (d1) and (d2). An extract from the rule is included as attachment 1 for reference.

The amended rule applies in every jurisdiction which allows access to retail competition to customers in embedded networks. In those embedded networks, an ENM must be appointed where any customer of that network seeks access to a market retail offer.

However, the rule also requires the AER to consider if the costs of complying with ENM conditions defined in the rule outweigh the likely benefits to persons connected, or proposed to be connected, to the embedded network. If so, we may exempt a person from complying with the ENM conditions until such time as an ENM conditions trigger occurs.

A primary purpose of this issues paper is to address this question. However, we have also taken the opportunity to review the guideline more broadly. The changes we propose include an update to better align this guideline with our retail selling guideline, clarification of the scope of a number of activity classes and amendments to better reflect communications technologies such as the National Broadband Network. A full list of our other changes is included in section 5.

2 Introduction

In this section we set out background information on how embedded networks fit in the regulatory framework, how they operate relative to retail competition and some of the challenges they present regarding billing, cost recovery and the imposition of fees and charges. We think understanding these issues is an important step to understanding the changes the embedded networks rule will bring when an ENM is appointed.

2.1 What is an embedded network

This is any situation where a single meter (a ‘gate’ or ‘parent’ meter) is installed at the point of connection of the site to the electricity distribution system and that meter records all the electricity usage by all consumers (i.e. residents and tenants) at the site. This means there must be two or more users sharing the supply for it to be an embedded network. The parent meter can be considered to be the bulk supply meter for the site. Under section 11 of the NEL, an embedded network is a miniature distribution network. All distribution networks must be registered with AEMO and regulated by the AER under chapter 6 of the NER or they must be exempted from registration by the AER. We set conditions for exemption from registration with the Australian Energy Market Operator (AEMO) which include a requirement for most embedded networks of any size to register with us as an exempt network.

2.2 Role of the AER

The AER has the role of determining the conditions for exemption of an embedded network. We do so under section 13 of the NEL. That section of the law requires we set conditions for exemption that are consistent with the National Electricity Objective (NEO). This means we must consider whether allowing an exemption from registration with AEMO for an embedded network is in the long-term interests of consumers. A fundamental principle we apply is that exempting an embedded network is only consistent with the NEO if customers have unfettered access to retail competition where it is available in a jurisdiction.2

Our conditions are set out in detail in the network guideline, which is issued under clause 2.5.1 of the NER. Where access to retail competition is not available for any reason, we further consider that an embedded network which cannot demonstrate that the costs to customers are equivalent to, or less than, the costs that generally apply in the NEM is unlikely to be serving the long-term interests of customers.

All NEM jurisdictions recognise customers should have access to retail competition. However, the delivery mechanisms vary. Since 2012 when the current AER network guideline came into operation the primary mechanism for access in NSW, Victoria and SA has been through parent/child metering. In the ACT, Tasmania and Queensland access to retail competition has required a direct connection to the local distributor. We understand that this requirement is under review in the ACT and Queensland.

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2 At the time writing, these jurisdictions are Victoria, New South Wales and South Australia.
Inside current embedded networks, each user is normally metered by their own meter, called a ‘child’ meter. The analogy often used is that the parent buys all the electricity and then shares it with the children. However, the concern of policy makers and the AER with this arrangement is that the children are denied their right of choice and sometimes the terms on which the bulk supply is shared amongst the children may not be fair and reasonable.

Under current arrangements the child meter may not be recorded in the Market Settlement And Transfer System (MSATS), which is managed by AEMO. Also, the MSATS details may not adequately identify the meter to be a child meter. Consequently, accurate meter information is not readily accessible to a market retailer. This lack of accessibility has been identified in the AEMC rule change as the major reason why many customers (i.e. children) in embedded networks have great difficulty trying to obtain a retail offer from any retail supplier apart from the embedded network reseller.

Anecdotal reports we have received from some industry participants suggest that some embedded network owners/operators may not have registered their embedded network for an exemption with the AER despite having an obligation to do so. We would be concerned if this resulted in those operators avoiding their responsibilities under the NER and the AER’s network guideline to facilitate customer choice. Failure to register an embedded network is an offence in all NEM jurisdictions and is liable to prosecution. As the AER guideline has been in force since 2012 all existing embedded network operators have had ample time to register their networks.

2.3 Why is access to retail competition important?

When customers are located within an embedded network it is possible that the charges applied to customers could be greater than the charges that would have resulted if the customers were served directly by a market retailer or had a choice of market retailer. Economists call these charges ‘monopoly rents’. Some embedded network operators may treat their customers as ‘captive’ to the network. There can be a strong financial incentive to exploit these situations and extract monopoly rents. The best remedy to this situation is for the customer to have ready access to a competing retail offer. If the embedded network seller charges too high a price, customers will simply get their energy from a cheaper competitor. This loss of customers places a natural cap on the ability of the embedded network seller to charge monopoly rent prices.

Anecdotal reports suggest some embedded network operators actively resist providing access to the metering installation by customers and/or competing retailers and some may prevent their customers accessing their billing information. They may also seek to prevent their customers obtaining better prices in those jurisdictions that allow access to retail competition through parent/child metering. These practices, where they occur, are breaches of the AER’s conditions for exemption of the network. Where this is occurring, the registration of the exempt embedded network is invalid. Operating an embedded network without a valid AER exemption is subject to severe penalties under the NEL.³

³ It is a civil penalty provision under section 11(2) of the NEL to own, control or operate a transmission or distribution system connected to the national grid without being a Registered participant of the National Electricity Market or holding an exemption from the AER.
However, even where competition is allowed, the industry has identified that practical problems have sometimes prevented the current arrangements for access to retail competition from being fully effective. The embedded network rule change and these amendments to the network guideline are intended to address these practical problems.

### 2.4 Role of the Embedded Network Manager

Even where the embedded network operator is fully compliant with our embedded network guideline, customers located in that embedded network may find accessing a retailer to be difficult. This may be because their local metering arrangements are not established up to the standards which apply elsewhere in the NEM. Under the AEMC rule change, a new accredited service provider called the Embedded Network Manager (ENM) will be tasked with closing this gap by undertaking certain functions as described below.

When an ENM is appointed, the customers inside the embedded network will be able to access a retail offer in the same way as any other electricity customer. The ENM will ensure that the details of the customers metering installation are recorded in the market settlement system and are accessible to market retailers. However, this access does have added complications compared to standard retail offers. We discuss the differences later in this paper.

Although the physical meters may be different for each customer, for access to retail competition the critical information is the National Metering Identifier (NMI) for that meter. Most meters in embedded networks do not currently have a NMI. They are sometimes referred to as ‘orphans’ because they lack that essential identity. The ENM will have the task of registering NMIs for embedded network meters (i.e. the child meters) in the MSATS. The ENM will be an accredited role from 1 December 2017. A person should not refer to themselves as an ENM if they are not accredited by the AEMO.

The role of the ENM is to manage the details of the metering installation for the building or site to ensure that the child meters are an approved market meter and are correctly registered in the MSATS. When the meter NMI details have been recorded in the MSATS, the customer can provide their unique NMI to a retailer. The retailer can then perform a ‘NMI discovery’ enquiry which will inform the retailer the customer is located in an embedded network. Based on that enquiry and on information supplied by the customer the retailer can then prepare a quote. If the customer decides to accept the quote the retailer can commence the retail transfer process in conjunction with the ENM.

### 2.5 Difference between household and embedded network billing

To better understand how embedded networks are different we need to understand how ‘normal’ electricity supply is billed. Customers living in stand-alone houses have their own direct connection to the electricity supply, which is individually metered. They receive a single bill for all their electricity. That bill includes all the network charges. What happens in

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4 ‘NMI Discovery’ is a process whereby the retailer enters the NMI in their system and looks up the details recorded for the customer in the MSATS to ensure they match the person talking to the sales agent. If they match, a critical first step in the retail transfer process is satisfied and the transfer process can commence.
the background is that the metering data allocated to their NMI is provided to both the
distributor and the retailer through the MSATS. The distribution network charges for standard
electricity services are billed directly to the retailer. The retailer then presents a single bill to
the customer. This happens because the market retailer has an agreement with the
distributor to bill this way.

In an embedded network, if a customer buys all their electricity from the embedded
network’s appointed retailer they would normally only get one bill, the same as a normal
customer elsewhere. However, if a customer decides to buy from a market retailer directly
they would normally get two bills – one is the ‘energy only’ bill from the market retailer and
the second is a network charges bill from the embedded network.

This two bill approach arises because it is not common for the market retailer to have an
agreement with the embedded network to recover their network charges. But, if the market
retailer does set up an agreement to recover the network charges, then a single bill becomes
possible once more. We all generally prefer the single bill option because it is relatively easy
for customers to compare competing offers for electricity. However, the transaction costs
involved mean that many market retailers do not support this approach when selling to a
customer in an embedded network.

Many current embedded network customers accessing a market retailer accept the two bill
approach. One bill is an energy only bill from their chosen market retailer. The second bill is
a network charges bill from the embedded network operator or their appointed agent. This is
necessary because the MSATS charges the total consumption of the network to the single
gate meter (i.e. the parent meter). The embedded network operator must then identify which
customer used what amounts of energy (and when) in order to apportion the network cost to
each customer. This is generally classed as a pro-rata approach. However, it is generally
very difficult to do in practice because the tariffs involved will not align and the necessary
metering data is generally not available.

To avoid this problem we allow a ‘shadow pricing’ alternative for network charges. Under this
alternative the customer is charged the prices they would receive as if they were directly
connected to the distributor. This means customers are no worse off than if they had a direct
connection to the NEM. To be clear, this means the embedded network operator may
receive more revenue from network charges than they pay in their bulk supply bills. This is a
source of profit which we consider can be applied to offset any costs incurred in satisfying
our conditions for exemption. It should also be noted that shadow pricing of the network
charges is also allowed where customers receive a single bill.

The AER allows this two bill approach but we note that it does carry a risk of the customer
being charged twice for network charges. This can happen if either the retailer’s billing
system or the MSATS does not correctly record the meter is a child meter in an embedded
network. The market retailer will continue to bill the embedded network customer for network
charges because the default assumption in these systems is the meter is for a customer in a
stand-alone house. In an embedded network, the network consumption of every embedded
network customer is included in the distributor’s charges for the parent meter. The
embedded network customer’s network charge has to be extracted from this bill and
separately billed. This is not an easy task as discussed above. When errors arise in this
process they can also be difficult to correct.
To address the duplicated charges issue we have expanded our guideline. We expect the two bill approach will be used by many retailers. In the guideline we distinguish between two situations:

- errors arising at the time of conversion of an existing site (i.e. brownfield) and,
- new sites and on-going retail churn at a site after conversion of the site (i.e. greenfield sites).

In a brownfield situation an existing customer will have a working relationship with an existing retailer. At the time of conversion to an embedded network this relationship will be disrupted by the conversion. Consequently, we consider it should be incumbent on the embedded network operator to resolve the transitional charging problems encountered by existing customers.

In a greenfield situation we anticipate the major cause of billing errors will be the retailer’s system not correctly recording that the customer meter is a child meter in an embedded network. Therefore, in a greenfield the obligation to rectify an error will rest primarily with the retailer.

Q.1 - Is this sufficient? What more should be done? Who should bear responsibility for billing errors when network charges are duplicated?

2.6 Fees, charges and transactions costs

With the introduction of the embedded network rule change we think it is desirable to provide additional guidance on acceptable billing practices. The bulk purchasing of energy may lead to lower total energy costs than the costs incurred if every resident and/or tenant were to purchase individually. In such cases, there is potential for an embedded network to be attractive to all. However, this potential benefit is subject to additional transaction costs which will arise because of the need to replace the role of distributors in managing the metering installation. Also, an intermediary in the form of an energy seller/re-seller is involved. Thus, much of the initial cost–benefit may be eroded if costs are excessive. The impact of transaction costs is an essential consideration in assessing whether an embedded network should exist. We consider that embedded networks should only proceed where the business case for an embedded network remains sound despite transaction costs. Otherwise, having regard to the NEO, customers will be better served if there is no embedded network.

Normal retail customers do not receive separate charges for network management fees, billing or routine metering services such as meter reading. We consider some practices relating to these charges may be unreasonable and should be subject to greater control. Our current guideline requires that the fees charged to customers for network services must be no greater than the fees which would have applied had the local distributor serviced the customer directly. We are concerned that some operators have not interpreted this condition correctly and may be charging fees inappropriately or at an excessive and unnecessary frequency. We will amend the guideline to clamp down on these practices. We have added the following requirements to condition 4.6.4.

An exempt embedded network service provider must:
(a) not impose any network charge on an exempt customer that would not be charged by the relevant local area distributor to that customer if the customer were directly connected to the distributor and subject to a standard distribution connection contract;

(b) provide notice to the exempt customer of any change in the exempt customer network tariff as soon as practicable, and no later than the exempt customer’s next bill; and

(c) limit any fee charged to a customer for late payment to a recovery of reasonably incurred costs by the exempt embedded network service provider as a result of the customer’s late payment.

A charge under this provision must be directly linked to a tariff schedule approved by the AER and published by the relevant local distributor. A charge may not exceed (but may be less than) the applicable tariff schedule item.

And new condition 4.6.4.1 – Meter reading charges

A meter reading charge may only be levied at a frequency of once per billing cycle (if the billing cycle is greater than monthly) and, in any other circumstances, not more than once per month.

A manual meter reading charge may only be charged for a type 5 or type 6 metering installation which was compliant with this guideline at the date of commissioning or first use of the metering installation.

Where the installed meter type is an advanced technology meter, the applicable metering charge and the charge for energisation, re-energisation or de-energisation must not exceed the published applicable distributor charge for an advanced technology meter. For advanced technology meters, a manually read meter charge is only permitted when a customer requests a physical read of the meter and the read is subsequently performed by physical inspection of the meter.

We have provisionally included this condition in order to raise awareness of an issue that frequently arises in embedded networks. We are aware many embedded networks have discrete meter reading charges. We are not satisfied that this is a charge that should reasonably be applied to embedded network customers. The industry norm is for this cost to be borne by the market retailer and absorbed into the bundled energy price.

Q.2 - Should a meter reading charge be allowed at all, or should it be capped as we propose or by an alternative mechanism?

Q.3 - Are customers, experiencing unfair, unreasonable or excessive fees?

Q.4 - If so, what form do these charges take?

Q.5 - Why do you think they are unfair, unreasonable or excessive?

Q.6 - What additional restrictions should the AER place on the levying of these charges?
3 Metering types and access arrangements

The differences in metering between jurisdictions mainly concern the types of meters that are used and how they are used. For new retail customers in embedded networks the AER requires that the metering used in each jurisdiction must comply with the NEM requirements as set out in the schedules to chapter 7 of the NER. Also, meters must be of a type approved for use in the jurisdiction. With the AEMC's Power of Choice reforms, retailers and their customers will have choice in the types of metering installed. Under our proposed amendments to the network guideline, these reforms will also apply to the meters installed in embedded networks.

In Victoria, all commercial and residential meters are new technology 'smart meters' or advanced meters. The Victorian specification for advanced meters requires that they be able to record energy use in every half hour period of every day and be remotely read at frequent intervals. They also have an inbuilt capability to remotely control one or more loads. In other jurisdictions the meters are a mix of older and new technologies, which include the old style accumulation meters (which feature a spinning disk), electronic interval meters (which might either be manually or remotely read) or smart meters of varying types and capabilities.

To facilitate access to retail competition, we will require where an existing meter is suitable for use by a market retailer, the embedded network operator must allow the customer and/or their retailer to continue to use that meter on reasonable commercial terms. Otherwise, if the commercial terms proposed are excessive, the customer or the retailer may opt to replace the meter. These requirements are consistent with the AEMC's Power of Choice reforms as apply to all other metering.

In these latter circumstances we consider the pre-existing embedded network meter to be a redundant asset. We note that regulated distributors who invested in metering did so in response to a statutory obligation. As a consequence, the right to recover their investment in metering has been recognised in the AER's determinations for regulated entities.

Embedded network operators normally invest in these networks for profit, not because of any statutory obligation. Consequently, there is no obvious reason to shield embedded networks from the risk of stranded investments arising from shifts in the competition environment. To prevent embedded network operators using meter replacement costs as a barrier to competition and to provide incentive to negotiate access to metering on reasonable commercial terms, we propose not to allow a residual charge to be levied for the redundant meter. We have added this requirement to condition 4.2.

Where a market retailer accesses an existing embedded network child meter the retailer or the customer (as the case may be) may:

1. purchase or lease the existing meter from the owner of the meter; or

2. replace the meter with a meter of their own choosing.

If option 1 applies, the purchase or lease of the meter and the arrangements to access meter data are to be determined at the discretion of the retailer or, otherwise, by the customer. If option 2 applies, no compensation is payable to the exempt embedded network service provider for the unrecovered cost of the meter.
Some installations currently may have meter types that are not compliant with the NER requirements. These meters may be issued a NMI and registered in MSATS but the meter must be replaced with a NEM compliant meter before the customer accesses a retail market offer. Under the AER’s guideline, all meters installed since 1 January 2012 have been required to be NER compliant. Therefore, if the embedded network operator continues to own or operate the metering installation for a customer, the cost of replacement of a non-compliant meter installed from 1 January 2012 should be borne by the embedded network operator. However, meters installed before 1 January 2012 must be replaced by the customer or the market retailer, consistent with the Power of Choice arrangements. We propose to amend condition 4.2 accordingly.

An issue which arose in the AEMC consultation on the embedded networks rule change was whether the metering installation should be maintained to the standards set out in schedule 7.3 of the NER. The AEMC left this as a matter for the AER to determine in consulting on this amendment to the network guideline. Our position is we can see no reason why meters used in an embedded network for commercial transactions should be treated any differently to any other metering installation in the NEM. Although costs are involved, all energy consumers have a reasonable expectation that their metering installation should be accurate, safe and reliable. We therefore propose requiring all the metering in that installation must be maintained to the standards set out in schedule 7.3 of the NER. Our amended condition 4.3 will require the embedded network operator to stand in the shoes of the responsible person and apply schedule 7.3 to the meters which they own, operate or control.

An exempt embedded network service provider must operate and maintain a metering installation which they own, operate or control in accordance with the requirements of schedule 7.3 of the NER. For the purposes of this condition, the exempt embedded network service provider is deemed to be and must undertake the role of the 'responsible person' where mentioned in schedule 7.3.

Q.7 - Do stakeholders consider these metering arrangements are sufficient to facilitate access to retail competition?

Q.8 - What other conditions are necessary or desirable to support competitive offers?

Q.9 - Are the requirements for maintenance of the embedded network metering installation appropriate? Should any other exceptions apply? If so, why?
4 Appointment of an embedded network manager

From 1 December 2017, exempt embedded network service providers may be required to appoint an ENM (or become accredited as an ENM) for each embedded network for which they hold an exemption. The conditions that regulate when an ENM is required are detailed in Part B of the Draft Guideline and are discussed in detail in the following section. Refer to the decision tree on page 25 for an overview of these proposals.

4.1 Who must appoint an ENM?

In the embedded network rule change, provision was made for the AER to consult on the question of who should be required to initially appoint an ENM (i.e. before a customer seeks to enter into a retail market contract). We now consider that question.

Within the AER’s system for network exemptions are a number of residential, commercial and industrial activity classes for customers. These are labelled ND1, ND2, ND10, NR1, NR2, NR3, NR4, NR5, NR6 and NRO5. These classes involve small and large residential, commercial and industrial customers. The exception is class NRO5 which captures metering systems that, historically, were established to support access to retail competition. We consider these to be the relevant classes to which the appointment of an ENM might apply.

We consider our other, unlisted activity classes do not involve a need for access to retail competition. We specifically omit class ND3 which concerns short-term rental accommodation. We do so on the basis that the transient nature of those tenancies make it unlikely that there would be sufficient opportunity to offset the transaction costs of appointing an ENM.

We also omit specific reference to the generation, industrial and commercial situations described in tables 2, 4 and 5 on the basis that these situations are likely to involve a direct arrangement with a market retailer with the necessary accreditation to correctly manage the metering installation. In these circumstances, the costs of appointing an ENM are likely to outweigh the benefit of an early appointment.

For any of these situations though, if the appointment of an ENM becomes necessary because an ENM conditions trigger has arisen as provided for in rule 2.5.1(d2) of the NER, an accredited ENM must be appointed.

We note that historically, there has been some inconsistency in the use of the NRO5 class where it overlaps with the NR1, NR2, NR3, NR4, NR5 and NR6 classes. As discussed elsewhere in this paper, a party currently registered in the NRO5 class will, in future, be required to update registrations to include the corresponding NR1 to NR6 activities. We intend to cease using the NRO5 activity class as, under the embedded network rule change, there is no longer a need to differentiate whether a metering system is suitable for access to competition.

Q.10 - Do stakeholders agree these are the only relevant activity classes?

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5 National Electricity Amendment (Embedded Networks) Rule 2015 No. 15, NER Clause 2.5.1 (d2)
Our starting point for determining who must appoint an ENM is to note that where the right to access retail competition exists in a jurisdiction, this is framed as an absolute right. Therefore, if even a single customer were denied the benefits of access to retail competition there is a loss to that customer. As the role of the ENM is essentially to facilitate access to retail competition, our starting assumption is that an ENM should be appointed for every embedded network serving a residential, retail, commercial or industrial customer or a retirement community. The commencement of this requirement however, will be where a specified trigger event for that class has occurred and the allowed time for an appointment has elapsed. The effect of a trigger event requirement is to delay the date by which an ENM must be appointed. Through the trigger mechanism then, we can address those situations where a case has been made for a lenient trigger for this requirement.

For many smaller networks it is possible that the transaction costs involved in appointing an ENM will outweigh the benefit to customers of access to retail competition. Also, some embedded networks operate as community based schemes. As a group, the community benefits from bulk purchasing power. Some groups may be concerned that being required to appoint an ENM may undermine the benefit to the rest of the community if a member of the community were to seek an alternative retail supply. There may be other circumstances which warrant a departure from the requirement to appoint an ENM. If so, this consultation is the opportunity for others to make a case for an appropriate trigger event. We discuss trigger events further below.

Our proposed approach is to require that:

Subject to the further requirements set out in this condition, the relevant exemption activity classes for which an ENM must be appointed are ND1, ND2, ND10, NR1, NR2, NR3, NR4, NR5 and NR6 (‘relevant activity classes’).

An exempt embedded network with 30 or more customers operating in a relevant activity class and not subject to a non–appointment or reversion entitlement under condition 4.7.2 must appoint an ENM by:

(a) existing networks: 1 December 2017; or

(b) from 1 December 2017: immediately on the network commencing operation.

Q.11 - Do stakeholders agree these are the only appropriate activity classes required to appoint an ENM?

Q.12 - Should any other activity classes be added or removed? If so, which activity classes and why?

4.2 Small networks appointment trigger

Under clause 2.5.1(d2) of the NER we are required to determine if some network activity classes should be exempted from appointing an ENM immediately, on the basis of costs outweighing benefits.

We consider that scale is an important consideration for these activities. Discussion with industry representatives would suggest that networks with fewer than 30 small retail
customers are less attractive than larger networks because of transaction costs. However, because the ENM function does not currently exist, we have no reliable insight into the likely costs of the ENM role.

We accept that it is likely small networks will have a higher sensitivity to transaction costs than larger networks. In the absence of better information, we note the choice of a threshold is, in most respects, arbitrary and will vary considerably depending on a range of factors. The factors may include the actual load of customers and the efficiency of ENM and market retailers. In the absence of a clear demarcation point, we consider for the purpose of this draft guideline 30 is a reasonable threshold below which the immediate appointment of an ENM is not required. We note that this threshold may change as a result of this consultation. If so, we may vary this threshold in the final guideline. In condition 4.4.2.1 we propose that the threshold be set at 29 or fewer customers. Note also, in condition 4.7.2 we provide a mechanism for community groups to delay the appointment of an ENM.

For an exempt embedded network with 29 or fewer small customers, an ENM trigger event occurs when the following is satisfied:

(a) a customer or a retailer notifies the exempt embedded network service provider of the desire of the customer to access retail competition; and

(b) where an eligible member of an eligible community notifies the exempt embedded network service provider as provided for in condition 4.7.2 that the customer does not accept a binding written price counter-offer; and

(c) the cooling off period for that market retail contract has expired.

Q.13 - Is the threshold of less than 30 customers appropriate?

4.3 Who pays for the ENM?

In order to access a retail offer, an embedded network customer (be they residents or tenants) must have, or must arrange to have, an accredited metering installation. Where an existing meter conforms to the standards required for use in the NEM, it is necessary for the meter to be issued a NMI. This is arranged by the ENM. It is a commercial matter for the new retailer and the embedded network to agree arrangements for access to the meter. Otherwise, the embedded network customer must arrange with the retailer for the metering to be upgraded. Again, this work is coordinated in conjunction with the ENM. We are aware that many of the existing embedded network service providers intend seeking accreditation to become ENMs. This includes existing embedded network operators. The NER provides that the operator may assume the role of the ENM if the operator is accredited. Throughout this paper we discuss appointing an ENM. Wherever we do so, we intend the reference to also include the alternative that the appointed ENM is the embedded network operator in the capacity of an accredited ENM.

The question which also arises is who pays the ENM? Ultimately, it is inevitable that the customers of the embedded network must pay the cost. The more salient point is how the cost is passed on. This may be in the form of the ENM cost being billed to:

1. the embedded network operator or
2. customers (or to the retailers who win customers in the embedded network) or
3. a combination of these two options.

Option 1

Our baseline requirement is that the exempt embedded network service provider must absorb the cost of ENM services, except where an embedded network has been formed to operate as a community based bulk purchasing scheme. Despite this, stakeholders may wish to present a case why a different approach should apply, either generally or, in specific circumstances.

Our basis for this view is that it is consistent with our existing shadow pricing policy. Under this policy embedded network charges are capped at the charges levied by the local DNSP. It is a cost which the exempt embedded network service provider must absorb if they wish to otherwise profit from the ownership or operation of an embedded network.

A critical role for the ENM is ensuring the metering installation is visible to the MSATS and therefore, that all customers have access to retail competition. This is a service that benefits all customers of the embedded network to a greater or lesser degree. A major benefit is that access to retail competition limits the ability of an embedded network operator to extract a price premium from customers of the embedded network. Thus, it is a cost which cannot be attributed to a single customer or to a class of customers. It is cost for services which should be shared across the whole of the embedded network. This approach is consistent with the approach to provision of regulated shared services by distribution network service providers.

To the extent that a proportion of customers elect not to participate in the embedded network but obtain their retail energy supply from alternative sellers, it is the availability of this access which places a constraint on the potential for the embedded network proprietor to exploit other customers within the network. Under this approach, the entire cost of the ENM services is spread across the whole of the customer base. The effect of this approach is that any increase in costs will act to reduce the discount offered by an exempt embedded network service provider.

Option 2

A case might be made that to the extent a particular service results in costs that are clearly attributable to a customer, the cost should be placed with that customer. Often this is referred to as the 'user pays' principle. This could be a second option. For readers familiar with network regulation, this approach generally applies to the provision of ‘alternative control services’ by regulated distribution network service providers. We consider that this alternative approach may potentially apply where an eligible community is operating a community scheme based on bulk purchasing power. In section 4.4.2 below we discuss our proposed requirements if this approach is to apply.

In this context, it is a moot point whether cost recovery is achieved by the ENM billing the customer directly or by billing the retailer who has won the customer. The retailer may choose to absorb the cost as part of its marketing effort to win new customers or may pass the cost on to the new customer. If the only cost charged by an ENM is for services at the time of transfer, this would be a sufficient model for recovering those costs.
As noted above, under the AEMC’s Power of Choice reforms, greater competition is to be allowed in the provision of metering services. The traditional roles will therefore change under those reforms. As a side note, we consider these reforms must also apply to embedded networks.

Given the incremental nature of the ENM role and the likelihood that, in a well-run embedded network, customers will be receiving a good price, we do not expect the cost of embedded networks to increase materially as a result of the rule change. We note that the ENM is accredited by AEMO and is intended to operate as a competitive service provider. However, our assumption on costs is untested and may not be realised. The AER would appreciate feedback on the likely cost of engaging the services of an accredited ENM.

**Option 3**

The third option for recovery is a hybrid of these approaches. Where a cost is identifiable as relating to a single customer, the cost is recovered from that customer but ongoing costs which are not readily attributable to a specific customer are recovered from all customers, using the mechanisms outlined above. We have not attempted to develop this alternative, however stakeholders may wish to bring a specific example to our attention.

**Consultation questions**

Regardless of the approach taken, the AER is concerned that the metrics used when common costs are shared across the community are fair and reasonable and do not unduly favour any party. However, we are not aware of any instances where an unreasonable approach has been adopted. In the absence of evidence of a problem in this respect, we have not sought to impose a condition on the form of the metrics that are used for this purpose. If, based on this consultation a specific problem is identified we will review this position and amend the guideline to address the specific problem.

Q.14 - How much will ENM services cost?

Q.15 - What is a reasonable range for estimating the costs of ENM services?

Q.16 - At what level do the additional costs of an ENM threaten the viability of an embedded network?

Q.17 - Are customers happy with current approaches as a model for recovery of the ENM costs?

Q.18 - Is there a need for specific measures or an AER condition to ensure that cost recovery occurs on an equitable basis for all network customers?

Q.19 - If so, what form should this take?

**4.4 General requirements for appointment**

We have previously noted that in allowing an exempt network to operate we may set conditions so long as those conditions are consistent with the NEO. An important consideration in the appointment of an ENM is ensuring the appointment is also in the long-
term interests of consumers. To mitigate against the possibility of future customers being locked in to long-term binding contracts that are not in their interests, we will require that any cost resulting from the accreditation of any person as an ENM or from the appointment or provision of services by an ENM must be borne by the exempt embedded network service provider. However, as discussed below, we leave open the possibility that where a community participates consensually in a group buying scheme, different arrangements might apply.

4.4.1 Advance fees and rebates prohibited

Any costs which arise through non-competitive processes or the payment of a bounty are inevitably recovered through additional fees paid by current and future residents and/or tenants. Therefore, the appointment of anyone with a statutory right to recover fees from a captive group of customers may be contrary to the long-term interest of those consumers if no safeguards are provided against improper practices. To address this possibility, condition 4.7 contains the following restrictions:

*An ENM must not pay an advance fee or a rebate to a property owner, developer or exempt embedded network service provider or any other person in connection with the provision of ENM services or to secure a right to provide services to an embedded network regulated by the AER.*

*An exempt embedded network service provider must not seek an advance fee or a rebate from any other person in connection with the provision of ENM services or to secure a right to provide services to an embedded network regulated by the AER.*

The operators of some embedded networks may think this provision is intrusive on their business model. However, we think it is incumbent upon those operators to demonstrate that their network offers benefits to customers and that any costs incurred can be demonstrated to be the minimum necessary. In any event, under the embedded network rule the operator may seek accreditation and thereby, maintain their control over the metering installation.

4.4.2 Eligible community cost recovery

In condition 4.7.1.1 we propose measures which would allow an eligible community which elects to appoint an ENM a means to recover costs for ENM services from ENM customers in limited circumstances.

We intend this condition to apply to eligible community based groups registered in activity classes ND2, NR2, NR3, and NR4. In particular, eligible community based groups would include caravan park, manufactured home site and retirement communities and other groups of a similar nature operating a bulk purchasing scheme. We would generally expect the eligible community (or a person or body corporate acting on behalf of the community) to act as the exempt embedded network service provider for the network.

An important consideration for the AER in the appointment of an ENM in this situation is to ensure the appointment of the ENM by the exempt embedded network service provider is also in the long–term interests of consumers. To mitigate against the possibility of future customers being locked in to long–term binding contracts that are not in their interests we will require that the appointment of an external ENM be conducted as an arm’s length
transaction through a robust competitive process which includes a poll of network customers. Also, the appointment of an ENM (other than the operator of an embedded network) must be conducted by a transparent competitive process and with the agreement of a two-thirds majority of customers of the embedded network.

4.4.3 Time limit extension

Under this condition, if a member of the community were to exercise their right to accept a retail market offer and does not rescind that decision, an ENM must be appointed as provided for in rule 2.5.1(d2) because an ENM conditions trigger will occur. However, the community may elect not to absorb the ENM costs, in which case it may require the community member(s) accessing a market offer (or offers) to pay the reasonable costs of ENM services. To allow time for the community to alert the affected members to consider whether the costs involved affect their decision to accept a market offer we will allow the exempt embedded network service provider a reasonable period to seek accreditation or to appoint an external ENM.

We note that the AEMC in their determination on the embedded networks rule change declined to make a rule that allowed for the appointment of an ENM to be delayed. The AEMC noted that this was a matter which could be addressed by the AER in the conditions imposed under this guideline.6

We consider that a time limit to appoint an ENM must be imposed. If the time period is too short, the embedded network operator will be forced to make a hasty decision and incur excessive costs to the detriment of all customers. However, a lengthy period would disadvantage customers seeking access to competition. We therefore propose:

Where an ENM trigger event has occurred for one or more of the activity classes applicable to an embedded network, the exempt embedded network service provider, if the exempt person is not an accredited ENM, must appoint an accredited ENM within 40 business days of the occurrence of a trigger event.

Given that we propose that an ENM should be appointed by a competitive process and that customers should be allowed to approve or reject a proposed appointment, we consider 40 business days (notionally 8 weeks) to be a reasonable period.

We seek stakeholder feedback on this proposal.

Q.20 - Do stakeholders support these requirements? If so, why? Or, if not, why not?
Q.21 - Is the time to appoint an ENM reasonable?
Q.22 - Are the protections sufficient? Why not?
Q.23 - What further protections are required and why?

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6 AEMC, Rule Determination, National Electricity Amendment (Embedded Networks) Rule 2015, No. 15, December 2015, pp.48-49
4.4.4 Non–appointment and reversion

In condition 4.7.2 we provide a mechanism to permit an eligible community to initially not appoint an ENM or to revoke an appointment of an ENM if the need for an ENM ceases. We propose this condition to satisfy the requirements of rule 2.5.1(d2).

This condition provides a mechanism for eligible communities to not appoint an ENM immediately or, if no community member is served by a market retail offer, to cease to engage an ENM. Our proposed mechanism is by a poll of eligible community members.

If requested by to do so by the lesser of 10 per cent of eligible members or ten eligible members, an exempt embedded network service provider must, within 30 days, prepare a resolution and conduct a poll of eligible members whether to adopt the resolution. A poll may be sought at any time; however, an exempt embedded network service provider is only required to conduct one poll in any twelve month period.

For eligible communities for which an exempt embedded network service provider offers price–matching in accordance with condition 4.9.4, the exempt embedded network service provider may, if requested by the eligible member, offer to match the prices offered by a relevant market retailer.

If no counter–offer is made or, if the counter offer is not accepted, the exempt embedded network service provider must appoint an ENM when the ENM condition trigger is satisfied.

Q.24 - Do stakeholders support these requirements? If so, why? Or, if not, why not?

Q.25 - Are the protections sufficient? Why not?

Q.26 - What further protections are required and why?
Figure 4.1 When and how to appoint an Embedded Network Manager

Step 1
Do you hold any of the following network exemption classes for the embedded network at this site?
- Deemed classes: ND1, ND2, ND10
- Registrable classes: NR1, NR2, NR3, NR4, NR5, NR6

Yes
No

Step 2
Are you acting on behalf of an eligible community?
- Eligible communities are those based in activity classes ND2, NR2, NR3 and NR4 that operate cooperative bulk purchasing schemes with the intention to share the savings of reduced electricity prices amongst all customers.

Yes
No

Step 3
Are there 30 or more customers in this embedded network that relate to the exemption classes listed in step 1?

Yes
No

Step 4
Has a poll of all eligible community members decided (at least a two-third majority) to delay appointment of an ENM?
(see conditions 4.7.2 and 4.7.3)

Yes
No

Step 5
Has a poll of all eligible community members decided (at least a two-third majority) to charge ENM costs to only the users of ENM services?
(see conditions 4.7.1.1 and 4.7.3)

Yes
No

Step 6
In the event of a customer seeking a market retail offer:
- Has the Exempt NSP price-matched the offer, and
- Has the offer been accepted by the customer?
(see condition 4.7.2)

No
Yes

An ENM must be appointed immediately once the network is operational:
- Costs for ENM absorbed into network charges.

An ENM must be appointed when a small customer accepts a market retail offer and the cooling off period for that contract has expired:
- Costs for ENM absorbed into network charges.

An ENM must be appointed:
- When a large customer enters into a market retail contract.
- Costs for ENM absorbed into network charges.

Costs for ENM are charged to ENM service users only and...
5 Other amendments to the guideline

In this section we identify a number of changes we have made to the guideline to address and update administrative matters, address unintended gaps in some activity classes and provide better guidance on our requirements.

5.1 Changes to tables 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10.

We have reformatted the tables and removed redundant and outdated text. We have also corrected the tables where a condition not relevant to an activity class was ticked to be applicable.

In the activity descriptions for some classes we have changed ‘selling’ to ‘supply’. This addresses an oversight and makes clear that the network activity class also applies if energy is supplied at no cost but not ‘sold’. (This distinction is only relevant to network exemptions).

We have expanded our definition of government bodies in ND10 to explicitly include public and private education facilities (e.g. Universities).

We have updated the definition of Large Corporate Entity to clarify that a trust or other corporate entity of an equivalent size to a reporting entity under the Corporations Law is also eligible under class NDO6.

We have expanded our definition of telecommunications activities to make clear that power supply to all technologies associated with the NBN, mobile and fibre optic or cable equipment is deemed exempt.

5.2 Contact information and notifications

We have expanded our requirements for an available contact for all matters concerning the operation and access to the embedded network. We have amended the provision for notification of life support customers to reflect the role of the retailer at the parent meter. We have included additional obligations to notify customers within an embedded network of planned outages.

5.3 Information provision and unbundling

We note the submission of SACOSS to the AEMC rule determination which recorded their concern that the provision of information to customers in embedded networks is poor. We have added a requirement for all customers to be informed of their rights in an embedded network when:

- a network is created;
- when a customer first joins an embedded network; and
- when a customer requests information.
We have included a requirement in this provision that the exempt embedded network service provider provide details of the tariffs charged for network services. This is condition 4.8.

5.4 Dispute resolution

We have updated the requirement for a dispute resolution process to clarify our requirements and adopt the applicable Australian Standard for disputes.

Dispute resolution

(a) In the event of a dispute concerning the sale of energy to an exempt customer, and in the absence of a determination of the relevant tenancy tribunal if the customer is a tenant, the exempt person must:

i. make reasonable endeavours to resolve the dispute, and

ii. advise the exempt customer of any right that the exempt customer has to access the energy Ombudsman scheme or any other relevant external dispute resolution body in the state or territory in which the exempt customer is located, if applicable.


The AER also intends to add a requirement that exempt embedded networks service providers must apply to join an Ombudsman scheme where it is available in a jurisdiction or otherwise abide by decisions of Ombudsman schemes. Jurisdictional schemes are currently exploring options and we intend to include any developments on this issue in the revised guideline.

Q.27 - Do stakeholders have any feedback about Ombudsman dispute resolution services becoming accessible to small customers in embedded networks for matters relating to exempt embedded network service providers?

5.5 Pricing

We have expanded our requirement re pricing to incorporate a requirement to notify customers of changes in tariffs and to limit the recovery of any fee for late payment to reasonably incurred costs. This better aligns the network guideline with our Retail Selling guideline.

The exempt person must not impose any network charge on an exempt customer that would not be charged by the relevant local area distributor to that customer if the customer were directly connected to the distributor and subject to a standard distribution connection contract.7

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7 For clarification, a “charge” includes, but is not limited to, account establishment fees, late payment fees, debt collection fees, service charges, and security deposits.
The exempt person must provide notice to the exempt customer of any change in the exempt customer network tariff as soon as practicable, and no later than the exempt customer’s next bill.

The exempt person must limit any fee charged to a customer for late payment to a recovery of reasonably incurred costs by the exempt person as a result of the customer’s late payment.\[^{8}\]

Q.28 - Do stakeholders agree with these amendments? If so, why? If not, why not? If relevant, what further changes do you consider necessary or desirable?

5.6 Access to retail competition

We have rephrased and expanded our requirement to allow access to retail competition in clause 4.1.12, in keeping with the intent of the rule change to promote competition in embedded networks.

Choice of retailer

1. Where an exempt customer is eligible under state or territory legislation to purchase energy from a retailer of their choice, the exempt embedded network service provider must not do anything to discourage or prevent them from exercising this choice, whether by:

(a) requiring the exempt customer to waive their ability to choose a retailer; or

(b) unreasonably hindering their efforts to find another retailer; or

(c) imposing a requirement for compensation for lost capital, income or profit by a customer exercising the right to access a market retail offer; or

(d) allowing, causing or permitting any other person to do any of the things mentioned in (a), (b) or (c) above;

and, except where the requirements of condition 4.8 have been met:

(e) an exempt embedded network service provider or agent must not alter the electrical supply arrangement to a customer or tenant in a private network directly connected to a registered distributor without the written consent of that customer, resident or tenant, freely given; and

(f) a customer, resident or tenant of commercial, industrial or residential premises must not be compelled to become part of a private network or subject to an exempt selling regime without the express written consent of that customer, resident or tenant.

2. Where condition 4.1.12.1 does not apply, an embedded network owner must not prevent or unreasonably impede a customer, resident or tenant within the embedded network from obtaining, at their own cost, a direct connection to the local distributor.

\[^{8}\] For clarification, a late payment fee can only be charged where it has not been excluded by jurisdictional legislation.
Q.29 - Do stakeholders agree with these amendments? If so, why? If not, why not? If relevant, what further changes do you consider necessary or desirable?

5.7 Network conversions - supplementary conditions

In the recent past we have received a number of applications for relief from condition 4.1.12 of the network guideline. These applications all concern customer access to retail competition associated with conversion of an installation to an embedded network. They sought a waiver of our requirement in condition 12 for every customer to consent to vary that customer’s access to the NEM. Our condition in version 1.3 of the guideline requires that a customer with access to retail competition should not have that access taken away without their explicit written consent.

Condition 4.1.12 was added to the network guideline in August 2013. Our intention at the time was to give the proponent of a network conversion an incentive to negotiate with every tenant to obtain their consent prior to conversion. This requirement for written consent is often referred to as requiring 100% consent. This is because even a single non-consenting tenant can frustrate or delay a conversion if they withhold consent.

Our intention in requiring written consent was to keep customers ‘whole’ in a financial sense. However, it has become apparent that our implementation of this policy does not work as intended. A small percentage of tenants may elect not to participate in the embedded network. In particular, large retail chains with substantial bargaining power may have no incentive to join an embedded network. This is because they have used their bargaining power to obtain a good deal and fear they will lose some of that benefit.

The concern with the current approach is that it gives these groups an effective right of veto over the conversion. The problem which then arises is that this opposition prevents a large number of other less empowered consumers from accessing better electricity prices if the conversion proceeded. As the regulator, we should strike a balance between the rights of these customers and the potential benefit to smaller customers if a conversion were allowed.

5.7.1 Proposed revised network approach

In responding to those applications for relief we adopted a modified approach. We aim to minimise detriment by imposing additional conditions to maximise the benefits for all tenants. Our conditions seek to keep the customer financially whole, even where a customer does not consent to a conversion to an embedded network. In responding to retail applications where relief from condition 12 has been sought, we consulted widely. A benefit of that consultation is we have developed a set of requirements that mitigate any negative impacts on customers if an existing network is converted. We now propose to incorporate the conditions relevant to a network exemption in the network guideline. This is new condition 4.9. The proposed conditions are attached.

The conditions to apply where an applicant has not obtained 100% consent to convert an existing installation to an embedded network are set out in the attachment. To utilise the alternative conditions, an embedded network operator must make application to the AER for approval to apply the alternative conditions.
The applicant must have conducted a marketing campaign for a sufficient period to have obtained consent from a substantial majority of customers. Customers are counted by number, not size. The marketing campaign must comply with the requirements of condition 1 in the attachment. An application must detail the marketing campaign, including the steps taken to follow up with customers who have not consented. An application must explain why the steps taken represent a diligent campaign and explain in explicit terms the benefits to be derived by customers if the conversion proceeds.

An application will not be considered if it is insufficiently detailed, is not adequately quantified, poorly presented or missing important information. The AER may approve or reject an application or may impose additional requirements to apply before a conversion is approved. The installation must not be converted to an embedded network before our approval is granted.

Q.30 - Do stakeholders agree with these amendments? If so, why? If not, why not? If relevant, what further changes do you consider necessary or desirable?

5.8 Increased requirements for HV networks

We propose amending condition 4.2 to impose greater requirements for high voltage networks operating at 66,000 volts and above. This is because these networks have potential to affect the safety, reliability and operation of the national market. One emerging trend is the increased likelihood of embedded generation seeking to connect to exempt networks in remote areas. Our changes are intended to bring high voltage networks into alignment with the essential requirements for other network service providers under chapter 5 of the NER regarding planning, maintenance and safe operation of a network.
6 Summary of consultation questions

Throughout the document we ask questions to help focus submissions. For convenience, we have compiled a full list of consultation questions below. The questions are preceded by a brief summary of the issues to provide context. For a full discussion of the issues relating to each question, please refer to the specific pages listed next to each topic subheading.

**Difference between household and embedded network billing (pages 10-12)**

Network changes billed to an embedded network’s parent or gate meter can be recovered from the child meters. These costs can be split proportionately amongst all energy users within the embedded network depending on how much energy is consumed and when energy is consumed as recorded by each meter. Alternatively, network costs can be recovered by ‘shadow pricing’. This means that each energy user is billed no more than they would be charged if connected directly to the distributor. This option can result in the embedded network operator receiving more revenue from network charges than they are billed through their bulk supply to the parent or gate meter.

A customer may receive two bills in situations where a customer in an embedded network purchases energy from a retailer external to the embedded network (i.e. an on-market embedded network customer). One bill is an energy only bill from the retailer, the other for the recovery of network charges from the embedded network operator. There is a risk that a customer receiving two bills may be charged twice for network charges due to the lack of communication between the two billing entities. The party responsible for rectifying double charging depends on the situation:

- Errors arising at the time of conversion of an existing site are to be resolved by the embedded network operator.
- Resolution of errors arising at new sites and on-going retail churn post site conversion are primarily the responsibility of the retailer.

**Fees, charges and transactions costs (pages 12-13)**

Conditions 4.6.4 (charging customers) and 4.6.4.1 (meter reading charges) outline what charges and fees may be levied by exempt embedded network operators.

- Charges cannot be imposed that would not be charged by the relevant local area distributor under their standard distribution connection contract.
- Charges and fees may not exceed (but may be less than) the tariff schedule of the relevant local distributor.
- Notification of a change in network tariff must be no later than the exempt customer’s next bill.
- Any late payment fees must be limited to a recovery of reasonably incurred costs.
- A meter reading charge may only be levied once per month or one per billing cycle (whichever is the least frequent).
- If an advanced meter is installed, meter charges, energisation charges and de-energisation charges must not exceed the published applicable distributor charge for advanced meters.
- Manual read charges may only be charged for:
  - type 5 or type 6 meters
  - advanced meters where a customer requests a physical read

Q.2 - Should a meter reading charge be allowed at all, or should it be capped as we propose or by an alternative mechanism.

Q.3 - Are customers experiencing unfair, unreasonable or excessive fees?

Q.4 - If so, what form do these charges take?

Q.5 - Why do you think they are unfair, unreasonable or excessive?

Q.6 - What additional restrictions should the AER place on the levying of these charges?

**Metering types and access arrangements** (pages 14-15)

*Replacement of meters not compliant with NER requirements*

All meters installed in embedded networks since 1 January 2012 have been required to be NER compliant in accordance with the Network Guideline. Before a customer access a retail market offer, their meter must be NEM compliant. However, the costs of any meter replacement to become compliant with NER requirements will be borne by different parties depending on the circumstances:

- The embedded network operator shall bear the costs of replacement if the customer's meter is owned or operated by the embedded network operator and the non-compliant meter was installed from 1 January 2012.
- The customer or market retailer shall bear the costs of replacement if the non-compliant meter was installed before 1 January 2012.

*Access to meters and meter replacement by market retailers*

If meters are replaced by an incoming market retailer, an embedded network operator will not be entitled to recover costs for the redundant meter. This is to prevent meter replacement costs being used as a barrier to competition and to incentivise negotiated access to metering on reasonable commercial terms.

- The embedded network operator must allow a market retailer or customer to exercise the following options where a market retailer accesses an existing embedded network child meter:
1. Purchase or lease the existing meter from the owner of the meter (as determined at the discretion of the retailer or customer along with arrangements to access meter data); or
2. Replace the meter with a meter of their choosing (with no compensation payable to the embedded network operator for any unrecovered costs of the meter).

**Metering installation maintenance standards**

Metering installations must be maintained to the standards set out in schedule 7.3 in all embedded networks that have an ENM. In this circumstance, the embedded network operator is deemed to be and must undertake the role of the 'responsible person' where mentioned in schedule 7.3.

Q.7 - Do stakeholders consider these metering arrangements are sufficient to facilitate access to retail competition?

Q.8 - What other conditions are necessary or desirable to support competitive offers?

Q.9 - Are the requirements for maintenance of the embedded network metering installation appropriate? Should any other exceptions apply? If so, why?

**Who must appoint an ENM (pages 16-18)**

We consider that where 30 or more customers under the following network exemption classes are within an embedded network, an ENM must be appointed: ND1, ND2, ND10, NR1, NR2, NR3, NR4, NR5 and NR6.

These classes involve the supply of energy to small and large residential, commercial and industrial customers. Holders of all other network exemption classes will only be required to appoint an ENM once the ENM conditions trigger is activated by either a small customer entering into a market retail contract and the cooling off period has expired or a large customer entering into a contract for the sale of energy (as mandated by the embedded networks rule change).

Existing networks most comply by 1 December 2017 and all subsequent embedded networks must comply immediately upon commencement of operation.

Q.10 - Do stakeholders agree these are the only relevant activity classes?

Q.11 - Do stakeholders agree these are the only appropriate activity classes required to appoint an ENM?

Q.12 - Should any other activity classes be added or removed? If so, which activity classes and why?

Q.13 - Is the threshold of 30 customers appropriate?
Who pays for the ENM (pages 18-20)

Exempt embedded network service providers will incur costs in appointing or otherwise providing the services of an ENM. Recovery of these costs will likely ultimately be passed on to the customers of the embedded network. There are three possible approaches to the recovery of ENM costs:

- Spread the costs across all customers within the embedded network because even if a customer does not seek a retail market offer all should benefit from the availability of full retail contestability in eliminating monopoly rents. These costs could be incorporated in the energy rates or daily charges offered to customers.
- Employ a user pays charging structure where those customers who have entered into a market retail contract are charged for the costs of the ENM because these are the customers that require an ENM's services.
- Charge specific customers for ENM service costs identifiable as relating to a single customer and recover from all customers any ongoing costs not readily attributable to a specific customer.

We have drafted the amended guideline on the basis that the exempt embedded network service provider will be required to absorb the ENM costs except in the limited case of an eligible community bulk purchasing scheme. Stakeholders may wish to submit alternative approaches for the AER to consider. However, such alternatives must also explain why the alternative would better satisfy the National Electricity Objective.

We propose no specific condition on the form of the metrics used for ENM cost recovery at this time but are receptive to stakeholder feedback on whether such a condition should be included. We also seek feedback on likely costs of ENM services.

Q.14 - How much will ENM services cost?
Q.15 - What is a reasonable range for estimating the costs of ENM services?
Q.16 - At what level do the additional costs of an ENM threaten the viability of an embedded network?
Q.17 - Are customers happy with current approaches as a model for recovery of the ENM costs?
Q.18 - Is there a need for specific measures or an AER condition to ensure that cost recovery occurs on an equitable basis for all network customers?
Q.19 - If so, what form should this take?

Time limit extension to appoint an ENM for eligible communities (page 22)

'Eligible communities' are those based in activity classes NR2, ND2, NR3 and NR4 that operate cooperative bulk purchasing schemes with the intention to share the savings of reduced electricity prices amongst all customers. If a customer accepts a retail market offer triggering the need to appoint an ENM, these eligible communities may decide not to absorb the costs of an ENM into the network charges payable by the all customers within the
network. Instead, eligible communities may decide to charge the reasonable costs of ENM services to those customers that have opted to leave the bulk purchase scheme and accept retail market offers. Customers considering whether to accept a retail market offer must factor in the added costs of ENM services to their decision.

Exempt embedded network service providers for eligible communities must appoint an accredited ENM within 40 business days of the ENM trigger event occurring. This timeframe of around 8 weeks allows for:

- Exempt embedded network services providers to alert those customers that will bear the reasonable costs of ENM services so they may fully consider the benefits of accepting a market offer; and
- A competitive process for appointment of an ENM involving the agreement of a two-thirds majority of customers of the embedded network.

Q.20 - Do stakeholders support these requirements? If so, why? Or, if not, why not?

Q.21 - Is the time to appoint an ENM reasonable?

Q.22 - Are the protections sufficient? Why not?

Q.23 - What further protections are required and why?

Non-appointment of an ENM and reversion for eligible communities (page 23)

Embedded networks with 30 or more customers operating in the relevant activity classes will be required to appoint an ENM by 1 December 2017 or otherwise immediately upon commencement of the network's operation. However, condition 4.7.2 would permit eligible communities with 30 or more customers to delay appointment of an ENM until a customer accepts a market offer and the cooling off period has expired. It also allows an eligible community to cease to engage an ENM if no customers are served by a market retail offer.

Members of the eligible community can request a poll of members to be held by the embedded network service provider as to whether an ENM should be appointed, not appointed or cease to be appointed. Should the requisite number or proportion of members request the poll, the embedded network service provider must comply and honour the decision of a two-thirds majority of members. The AER will approve the decision of the eligible community to appoint, not appoint or cease to appoint an ENM upon receipt and validation of polling evidence.

Q.24 - Do stakeholders support these requirements? If so, why? Or, if not, why not?

Q.25 - Are the protections sufficient? Why not?

Q.26 - What further protections are required and why?

External dispute resolution (page 26)

The AER intends to add a requirement that exempt embedded networks service providers must apply to join an Ombudsman scheme where it is available in a jurisdiction or otherwise
abide by decisions of Ombudsman schemes. Jurisdictional schemes are currently exploring options and we intend to include any developments on this issue in the revised guideline.

Q.27 - Do stakeholders have any feedback about Ombudsman dispute resolution services becoming accessible to small customers in embedded networks for matters relating to exempt embedded network service providers?

**Pricing** (pages 26-27)

We have expanded our requirement re pricing to incorporate a requirement to notify customers of changes in tariffs and to limit the recovery of any fee for late payment to reasonably incurred costs. This better aligns the network guideline with our Retail Selling guideline.

Q.28 - Do stakeholders agree with these amendments? If so, why? If not, why not? If relevant, what further changes do you consider necessary or desirable?

**Access to retail competition** (pages 27-28)

We have rephrased and expanded our requirement to allow access to retail competition in clause 4.1.12, in keeping with the intent of the rule change to promote competition in embedded networks.

Q.29 - Do stakeholders agree with these amendments? If so, why? If not, why not? If relevant, what further changes do you consider necessary or desirable?

**Network conversions - supplementary conditions** (pages 28-29)

Under the current Network Guideline, network conversions required the written consent of all customers at any site located within a jurisdiction where retail competition is available. We propose to revise this approach to allow a network conversion to proceed if a substantial majority of customers consent. In such cases, we propose to attach additional conditions to the exemption focused on mitigating any detriment customers may suffer from becoming part of an embedded network and providing customers with the information required to make an informed decision on giving consent. This approach aims to prevent a minority of customers preventing the majority benefiting from reduced electricity costs passed on through a bulk purchase at the gate meter while adequately protecting customers from the effects of reduced market contestability.

The full set of proposed conditions are detailed in Appendix 2.

Q.30 - Do stakeholders agree with these amendments? If so, why? If not, why not? If relevant, what further changes do you consider necessary or desirable?
Attachment 1 - Extract from the embedded network rule change

Additions to NER r. 2.5.1 - Registration as a Network Service Provider

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

1. the requirement to register as a Network Service Provider; or
2. the operation of Chapter 5,

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

(d1) An exemption granted by the AER under paragraph (d):

1. is, if the exemption relates to a person who owns, controls or operates an embedded network, deemed to be subject to the ENM conditions unless:
   (i) the embedded network the subject of the exemption is located in a participating jurisdiction in which persons connected, or proposed to be connected, to the embedded network are not afforded the right to a choice of retailer; or
   (ii) the AER has made a determination under paragraph (d2); and
2. may be subject to such other conditions as the AER deems appropriate.

(d2) If the AER considers that the likely costs of complying with ENM conditions outweigh the likely benefits to persons connected, or proposed to be connected, to the embedded network, the AER may, when granting an exemption under paragraph (d), determine to exempt that person or class of persons from the requirement to comply with the ENM conditions until such time as an ENM conditions trigger occurs.

Additions to NER Chapter 10 - Glossary

embedded network

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 management services

Services that involve carrying out the roles, discharging the responsibilities and complying with the obligations of an Embedded Network Manager under the Rules and procedures authorised under the Rules.
Embedded Network Manager

A person:

(a) who meets the requirements listed in schedule 7.7 and has been accredited and registered by AEMO as an Embedded Network Manager; and

(b) who has not been deregistered by AEMO as an Embedded Network Manager under clause 7.4.4(d).

ENM conditions

An Exempt Embedded Network Service Provider must:

(a) act as the Embedded Network Manager for the relevant embedded network; or

(b) engage an Embedded Network Manager to provide embedded network management services for the relevant embedded network; and

(c) enter into an agreement with an Embedded Network Manager for the provision of embedded network management services where that person has engaged an Embedded Network Manager under paragraph (b).

ENM conditions trigger

In relation to a small customer, when the small customer enters a market retail contract for the sale of energy at the relevant child connection point and the cooling off period in relation to that contract has expired.

In relation to a large customer, when the large customer has entered a contract for the sale of energy at the relevant child connection point.

ENM service level procedures

The procedures established by AEMO in accordance with clause 7.16.6A.

Exempt Embedded Network Service Provider

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 under section 13 of the National Electricity Law and clause 2.5.1(d).
Attachment 2 - New clause 4.9

New clause 4.9 of the guideline will provide a process for seeking AER approval for conversion of an existing site to an embedded network where not all customers of the proposed embedded network have consented to the proposed conversion.

4.9 Alternative conditions for site conversion

4.9.1 Provision of retrofit information

1. The exempt embedded network service provider must provide notice, by letter, to all tenants at the retrofit location, of the plan to install an embedded network at the site.

2. The exempt embedded network service provider must provide each tenant with the following information regarding the installation of the embedded network:
   a. a written notice which provides the tenant with information concerning:
      i. the tenant's right to choose their own retailer, even within an embedded network
      ii. the tenant's ability to enter into an energy only contract with an authorised electricity retailer
      iii. the obligations regarding electricity offer matching, as set out in conditions 4.9.3 and 4.9.4
      iv. the obligations regarding duplication of network fees, as set out in condition 4.9.5.
   b. a copy of the electricity sales agreement to be offered by the exempt person
   c. the contact details of a representative of the exempt embedded network service provider who will address any concerns and queries relating to the planned retrofit.

3. The exempt embedded network service provider must ensure that information regarding the proposed retrofit is clearly, fully and adequately disclosed, and that it has regard to a person's capacity to provide consent.

4.9.2 Collecting and recording explicit informed consent

1. The exempt embedded network service provider must provide the tenant with the information set out in condition 4.9.1, prior to seeking the tenant's explicit informed consent to the retrofitting of the embedded network.

2. The exempt embedded network service provider must keep records of the consent obtained. These records must:
   a. include copies of the information provided to tenants
   b. include records of consultations and meetings held with tenants
   c. identify and record which tenants have not consented and the reasons for non-consent
   d. record the outcome of any negotiation and/or dispute resolution with tenants
   e. be kept for a period of two years
f. be provided to the AER on request.

3. The exempt embedded network service provider must engage with prospective customers who do not consent, and seek to mitigate their concerns.

4. The exempt embedded network service provider must obtain the tenant’s consent for the retrofit in a separate document, that is, the document recording the exempt customer’s consent to the retrofit must be separate to a document acknowledging that the exempt customer is selecting the exempt embedded network service provider as its electricity supplier.

4.9.3 Offer matching for large customers

This condition applies only if the large customer was a tenant or resident at the time of the creation of the embedded network.

1. If a tenant, who is categorised as a large electricity customer, does not consent to becoming part of the embedded network, the exempt embedded network service provider must:
   a. facilitate, within the embedded network, the continuation of the tenant’s electricity contract with their current retailer, or
   b. facilitate the tenant’s direct connection to a registered distributor, or
   c. if a or b do not apply, fulfil a request made by the tenant that the exempt embedded network service provider match any genuine electricity offer that would be available to the particular tenant if they were still a grid connected customer.

2. The exempt embedded network service provider must fulfil any subsequent request made by a tenant to match an electricity offer if the request is made 12 months or more after a previous request.

3. In the absence of a subsequent request to match an electricity offer, the exempt embedded network service provider need only apply the matched offer for a period of 12 months.

4. The exempt person’s obligation to match an electricity offer expires upon termination or renewal of the large customer’s tenancy/lease.

4.9.4 Offer matching for small customers

This condition applies only if the small customer was a tenant or resident at the time of the creation of the embedded network.

1. If a tenant, who would be categorised as a small electricity customer, does not consent to becoming part of the embedded network, the exempt embedded network service provider must:
   a. facilitate, within the embedded network, the continuation of the tenant’s electricity contract with their current retailer, or
   b. fulfil a request made by the tenant that the exempt embedded network service provider match any genuine electricity offer that would be available to the particular tenant if they were still a grid connected customer.
2. The exempt embedded network service provider must fulfil any subsequent request by a tenant to match an electricity offer if the request is made 12 months or more after a previous request.

3. In the absence of a subsequent request to match an electricity offer, the exempt embedded network service provider need only apply the matched offer for a period of 12 months.

4. The exempt person’s obligation to match an electricity offer expires upon termination or renewal of the small customer’s tenancy/lease.

4.9.5 Duplication of network charges

This condition applies only if the customer was a tenant or resident at the time of the creation of the embedded network.

1. The exempt embedded network service provider must take steps to remedy any duplication of network charges experienced by tenants who have entered into an energy supply contract with an authorised retailer.

2. The exempt embedded network service provider must not charge a connection charge to any tenant who enters into an energy supply contract with an authorised retailer in accordance with condition 4.8.1.

4.9.6 Metering arrangements

1. The exempt embedded network service provider must bear the costs of any changes to metering and other network alterations that take place in the course of the retrofitting of the embedded network.

2. The exempt embedded network service provider must ensure that metering arrangements within the embedded network allow exempt customers to access retail competition.

4.9.7 Approval by the AER

The applicant must conduct a marketing campaign for at least three months based wholly on this condition 4.9. If the applicant can demonstrate at the conclusion of that period a substantial majority of tenants and residents have agreed to conversion to an embedded network, the applicant may apply to the AER to convert the network.

The application must detail the marketing campaign undertaken and provide the AER with a report summarising the information collected under condition 4.9.2. An application must contain:

(a) details of the sign–up percentage attained,

(b) the views of customers both accepting and refusing to accept the conversion

(c) the steps taken to mitigate these concerns and an undertaking to observe conditions 4.9.1 to 4.9.6.

If the AER is not satisfied with the application in any respect we may, at our discretion, require the applicant to rectify the defect in the application or may publicly consult on the
application or both. We may include a requirement that the marketing campaign be modified or extended, the application or any supporting material provided to consumers or the AER be revised or that an undertaking be amended.

If the AER is satisfied with an application we will issue a notice of acceptance, which may specify an effective date. The network must not be converted until the effective date specified in a notice issued by the AER.
Attachment 3 - Table of embedded network roles

The following table demonstrates the differences between the Exempt ENSP and ENM roles. References in the table refer to applicable sections of the Draft Network Guideline.

<table>
<thead>
<tr>
<th>Exempt Embedded Network Service Provider (Exempt ENSP)</th>
<th>Embedded Network Manager (ENM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short form</strong></td>
<td></td>
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<tr>
<td>Exempt ENSP or Exempt NSP</td>
<td>ENM</td>
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<tr>
<td><strong>Other roles and terms included in this category</strong></td>
<td></td>
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<tr>
<td>• Embedded network owner</td>
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<tr>
<td>• Embedded network operator</td>
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<tr>
<td>• Embedded network controller</td>
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<td>• Agent (if they operator or control the network in any way, which includes reading meters)</td>
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<tr>
<td>• The holder of a network exemption</td>
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<tr>
<td><strong>Necessary for:</strong></td>
<td></td>
</tr>
<tr>
<td>Supplying energy to third parties within an <strong>embedded network</strong> connected to the national grid.</td>
<td>Managing the process that enables customers within an embedded network to access energy offers from market retailers outside of the embedded network.</td>
</tr>
<tr>
<td>An embedded network is a private electrical network which is owned, controlled or operated by a person who is not registered as a Network Service Provider with AEMO (i.e. not a transmission or distribution business). See the diagram in section 2 for illustration.</td>
<td>If an embedded network contains electricity customers that have entered into a contract with a market retailer, an ENM must be appointed.</td>
</tr>
<tr>
<td><strong>Legal definition</strong> (according to Chapter 10 of the NER)</td>
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</tr>
<tr>
<td>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 under section 13 of the National Electricity Law and clause 2.5.1(d).</td>
<td>A person:</td>
</tr>
<tr>
<td>(a) who meets the requirements listed in schedule 7.7 and has been accredited and registered by AEMO as an Embedded Network Manager; and</td>
<td>(b) who has not been deregistered by AEMO as an Embedded Network Manager under clause 7.4.4(d).</td>
</tr>
<tr>
<td>Requirements</td>
<td></td>
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<tr>
<td>Must hold a network exemption obtained by:</td>
<td>Must be registered by AEMO as an accredited Embedded Network Manager. Accreditation and registration is dependent on</td>
</tr>
<tr>
<td>• Qualifying for an automatic or ‘deemed’ exemption by</td>
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</table>
conducting activities that fit within a deemed class (see section 3.1); or

- Registering with the AER for a ‘registrable’ exemption by conducting activities that fit within a registrable class (see section 3.2); or

- Applying to the AER for an individual exemption if conducting activities that do not fit within a deemed or registrable class (see section 3.3). Applications for individual exemption must be granted by the AER.

An Exempt ENSP must hold an exemption for each site that they perform this role.

demonstrating that the candidate has certain competencies including:

- a detailed understanding of the NER and AER Network Guideline;
- a detailed understanding of the role relationships and obligations that exist between different market participants;
- an understanding of interfaces needed to access AEMO’s systems and support market procedures.

### Obligations under guidelines and legislation

<table>
<thead>
<tr>
<th>Obligations under guidelines and legislation</th>
<th>Obligations are listed in this guideline under Part B – Conditions (see section 4). These include:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>- accurate metering</td>
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<td>- network safety</td>
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<td>- dispute resolution</td>
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<td>- life support requirements</td>
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<td>- appointment of an ENM</td>
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<td>- adherence to charging restrictions</td>
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<table>
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<tr>
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<th>Obligations are mainly listed under Chapter 7 of the NER, and AEMO’s ENM guideline and service level procedures. Obligations include:</th>
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<tbody>
<tr>
<td></td>
<td>- confidentiality with customer data</td>
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<td>- cooperation with other market participants such as a customer’s retailer, metering coordinator, exempt ENSP etc.</td>
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<tr>
<td></td>
<td>- maintain information regarding types and configuration of metering installations to make available on request to market participants</td>
</tr>
<tr>
<td></td>
<td>- application to AEMO for a NMI</td>
</tr>
<tr>
<td></td>
<td>- provision of NMI to market participants</td>
</tr>
</tbody>
</table>
DRAFT Guideline
Exemption from registration as a Network Service Provider

18 August 2016
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Glossary

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<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABN</td>
<td>Australian Business Number</td>
</tr>
<tr>
<td>ACN</td>
<td>Australian Company Number</td>
</tr>
<tr>
<td>AEMO</td>
<td>Australian Energy Market Operator</td>
</tr>
<tr>
<td>AER</td>
<td>Australian Energy Regulator</td>
</tr>
<tr>
<td>ACCC</td>
<td>Australian Competition and Consumer Commission</td>
</tr>
<tr>
<td>ASIC</td>
<td>Australian Securities and Investments Commission</td>
</tr>
<tr>
<td>Body Corporate</td>
<td>Means a controlling body of a scheme constituted under state or territory strata titles legislation, the members of which are lot owners (or their representatives), and includes an owners corporation but is not a body corporate for the purposes of the Corporations Act 2001 (Cth).</td>
</tr>
<tr>
<td>Customer</td>
<td>Means a consumer of electricity for primary industry, domestic, commercial or industrial use but does not include a wholesale market customer who is registered by AEMO as a Customer under Chapter 2 of the NER.</td>
</tr>
<tr>
<td>Eligible community</td>
<td>Has the meaning given in conditions 4.7.1.1 and 4.7.2.</td>
</tr>
<tr>
<td>Embedded network</td>
<td>Has the meaning specified in chapter 10 of the NER.</td>
</tr>
<tr>
<td>Embedded network manager</td>
<td>Has the meaning specified in chapter 10 of the NER.</td>
</tr>
<tr>
<td>Energy</td>
<td>Means electricity</td>
</tr>
<tr>
<td>Exempt embedded network service provider</td>
<td>Has the meaning specified in chapter 10 of the NER.</td>
</tr>
<tr>
<td>Exempt network</td>
<td>See private network</td>
</tr>
<tr>
<td>GWh</td>
<td>GigaWatt hour</td>
</tr>
<tr>
<td>Large customer</td>
<td>Means a business customer who consumes energy at business premises at or above the upper consumption threshold, as defined by the relevant jurisdiction. If no threshold is defined, 100 megawatt hours per annum for electricity.</td>
</tr>
</tbody>
</table>
### Large corporate entity

A ‘large proprietary company’ as defined under clause 45A(3) of the *Corporations Act 2001* or, if not a reporting entity under that Act, an unlisted company, trust, or other legal entity which fulfils the financial and/or staffing criteria specified in clause 45A(3) of that Act.

### Meter

Means any device (compliant with metrology requirements and Australian standards) that measures the quantity of energy passing through it or records the consumption of energy at the customer’s premises.

### MWh

*MegaWatt hour*

### NEL

*National Electricity Law*

### NER

*National Electricity Rules*

### Off–market energy generation

Means an energy generation option not required to be registered with AEMO under clause 2.5.2 of the NER and applicable AEMO guidelines.

Note: The category includes – but is not limited to – small scale diesel, petrol, bio–fuel, gas (including coal–seam and other methane sources), inverter, fuel cell, an electric vehicle inverter, thermal–electric, geothermal, solar (including photovoltaic), wind or hydro generation and cogeneration and tri–generation installations.

### On–market energy generation

Means an energy generation option required to be registered with the AEMO under clause 2.5.2 of the NER and applicable AEMO guidelines. This category includes the four AEMO registration categories of scheduled generation, non–scheduled generation, market generation and non–market generation.

Note: The category includes – but is not limited to – small scale diesel, petrol, bio–fuel, gas (including coal–seam and other methane sources), inverter, fuel cell, an electric vehicle inverter, thermal–electric, geothermal, solar (including photovoltaic), wind or hydro generation and cogeneration and tri–generation installations. Typically, this category relates to generation systems of 30MW or greater capacity.

### On–selling, selling

On–selling or selling means an arrangement where a person acquires energy from a retailer following which the person acquiring the energy or a person acting on their behalf sells energy for use within the limits of premises owned, occupied or operated by the person.

### Parent connection point

Has the meaning specified in chapter 10 of the NER.

### Private network

Means any network connected to the NEM or an islanded network subject to regulation under the NER, supplying
<table>
<thead>
<tr>
<th><strong>Private network operator</strong></th>
<th>See: exempt embedded network service provider</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Register</strong></td>
<td>Public Register of network exemptions</td>
</tr>
<tr>
<td><strong>Residential customer</strong></td>
<td>Means a customer who purchases energy principally for personal, household or domestic use at premises.</td>
</tr>
<tr>
<td><strong>Responsible person</strong></td>
<td>Has the meaning specified in clause 7.2.1(a) of the NER. For the purposes of condition 4.2.2.3, a relevant exempt embedded network service provider is deemed to the responsible person.</td>
</tr>
<tr>
<td><strong>Retailer</strong></td>
<td>Means a person who is the holder of a retailer authorisation for the purposes of section 88 of the Retail Law.</td>
</tr>
<tr>
<td><strong>Retail Law</strong></td>
<td>National Energy Retail Law</td>
</tr>
<tr>
<td><strong>Sell</strong></td>
<td>The provision of electricity in exchange for money.</td>
</tr>
<tr>
<td><strong>Small customer</strong></td>
<td>Means a customer-- who is a residential customer, or who is a business customer who consumes energy at business premises below the upper consumption threshold, as defined by the relevant jurisdiction. If no threshold is defined, 100 megawatt hours per annum for electricity.</td>
</tr>
</tbody>
</table>
1 Nature and authority

1.1 The regulatory framework

On 17 December 2015, the Australian Energy Markets Commission (AEMC) released the Embedded Networks Final Rule Determination, which aims to reduce the barriers customers in embedded networks face in accessing retail competition. This draft guideline sets out proposed changes in response to the AEMC’s determination and recommendations and submissions from stakeholders during the course of the Embedded Network rule change determination process. We also outline a number of other administrative changes.

Under the National Electricity Law (NEL) and the National Electricity Rules (NER) anyone who engages in an electricity distribution activity must either be:

- registered with the Australian Energy Market Operator (AEMO) as an electricity network service provider, or
- must gain an exemption from the requirement to be a registered network service provider from the Australian Energy Regulator (AER).

This guideline explains which network activities are deemed exempt, which activities must be registered and how to register. It also sets the conditions for all the exemption classes pre–defined by the AER.

No matter how small the network, anyone who supplies electricity to another person over a private network of any kind is providing an electricity distribution service. An exemption is required for any unregistered network by which electricity is supplied to another party, be that party a legal person, corporation, government department or statutory body of any kind.

Registration with the market operator is a complex and expensive process. Obtaining an exemption for eligible networks is relatively easy and low cost (there is no application fee). The granting of an exemption can also relieve a network owner/operator or controller of the requirements to comply:

- with the technical requirements set out in Chapter 5 of the NER and/or
- the obligation to provide other network suppliers and other registered participants in the NEM with access to its network and other obligations which exist under the NER

but not safety and related requirements.

1.2 Who should read this guideline?

This guideline is for people or businesses that are involved in allowing anyone else to use electricity by connecting to wiring in a:

- farm
- hotel
- factory
• car–park
• marina
• public land
• shopping centre
• industrial estate
• private property
• retirement village
• industrial complex
• strata–title property
• office development
• mining development
• residential development
• tram, train or rail network or
• elsewhere.

You should read this guideline if you think that you are operating a private electricity network – which is illegal unless it is registered with AEMO or exempted from registration by the AER.

To avoid the risk of serious penalties you might only need to make some small adjustments. You might not have to do anything at all. Maybe, you need to:

• register your details with the AER, or
• register with AEMO, or
• apply to the AER for a network exemption.
• If you think you may need a network exemption, this guideline will help you understand:
  • what network exemptions are and how they work
  • whether or not you, or your business, need a network exemption
  • how to obtain a network exemption and which exemption class applies to you
  • the factors we will consider when assessing individual exemption applications.

This guideline deals with network exemptions under the NEL and NER. For retail exemptions under the National Energy Retail Law, please see the AER’s (Retail) Exempt Selling Guideline.

If you are not sure whether you need an exemption or not, please contact us. You can email us at aerexemptions@aer.gov.au with any questions, or phone the AER/ACCC Infocentre on 1300 585 165 (Australian callers) or + 612 6243 1305 (overseas callers).
1.3 About the AER

The AER is an independent statutory authority established under Part IIIAA of the Competition and Consumer Act 2010 (Commonwealth). The AER is the national regulator of electricity and gas. Our responsibilities include administering and regulating authorisations and exemptions (retail and network) in participating jurisdictions.
2 Part A – About this guideline

2.1 Introduction

This Network Guideline relates to a privately owned embedded or exempt network (‘private network’). It incorporates significant amendments necessary to give effect to the AEMC Embedded Networks rule change.¹

A private network means any network for the supply of electrical energy to a third party, other than a transmission or distribution network registered with AEMO. Electrical wiring on your own site is normally just a private electricity installation. It only becomes a private network if it supplies electricity to a third party. It does not matter if the supply is free – you are still providing a distribution service. The term ‘embedded network’ is now defined in chapter 10 of the NER. Under the NER definition, all private networks are embedded networks.

Persons involved in the on–selling of electricity may, depending on their circumstances, need to conform both to this Guideline and our guideline for retail exemptions, the Retail Exempt Selling Guideline² or, where the AER does not regulate on–selling, the requirements for on–selling administered by the jurisdictional regulator.

An analogy that might help to explain the relationship between the two guidelines: To drive a car legally on the road the car must be registered and the driver must have a driver’s licence.

– Registration or exemption of the network is analogous to registration of the car.

– Having a retail exemption is analogous to the driver having a driver’s licence.

This Network Guideline is about the exemption or registration of the physical assets that make up the network. Please note: individual exemptions granted by the AER and published on the AER’s website are unaffected by changes to this Guideline. All other exemptions must comply with this guideline including, where required, registration of the network in the ‘registrable’ exemption category as provided for in this Guideline.

Most small network owners/operators will want to avoid registering with AEMO as a distributor. If you register, you will incur initial registration costs and ongoing reporting obligations and costs. Our Network Guideline sets out eligible classes of distribution activity and the requirements which must be met for an exemption to apply. Regardless of whether a network is registered or exempt, it will be subject to additional requirements governing matters including construction standards and electrical safety under the laws of the State or Territory in which it is located.

All exempt private networks are subject to conditions. These conditions cover access to retail competition, safety, dispute resolution, metering and pricing. Even if your network is in

¹ AEMC, National Electricity Amendment (Embedded Networks) Rule 2015, No. 15, December 2015
² Available at: http://www.aer.gov.au/node/18677
a ‘deemed’ category, if you fail to observe the relevant conditions your exemption will be invalid and you will be operating illegally. This may expose you legally to a civil penalty (a fine) under the National Electricity Law or other relevant legislation. The conditions are in Part B, Section 4 of this Guideline.

**Retail Exempt Selling Guideline**

The AER’s requirements governing retail on–selling registration and exemptions are set out in our Retail Exempt Selling Guideline, which should be read in close conjunction with this Guideline.

**Selling, On–selling and Supply**

The terms 'selling', 'on–selling' and 'supply' have very broad connotations when used in this Guideline. They include all manner of situations where electricity is supplied to another person. This includes residential boarding houses, flats, apartments, retirement villages, caravan parks, retail centres, strata title, industrial parks, airports, office building, mining facilities, joint venture arrangements, quasi–retail or distribution arrangements and third–party connections to generators, to name but a few examples.

Where the sale of electricity takes place, the party selling the electricity must be registered or exempt under the Retail Exempt Selling Guideline, wherever it is in effect, or under the local jurisdictional requirements elsewhere.

The test for 'selling' or 'on–selling' electricity is about an action or activity that normally involves an exchange of money. In contrast, the test for a network exemption is about the 'supply' of energy and the associated technical issues. In this revision of the guideline we have amended some deemed and registrable exemptions to refer to 'supply' of electricity, rather than 'selling' to better reflect this distinction.

For example, if your wiring is connected to the National Electricity Market and you are supplying electricity to a third person, you must hold a network exemption. It doesn't matter if you charge for it or not. Even if the electricity is given away for free both you (as the network owner) and your agents (if you have any) must be registered or exempt under this Network Guideline.

Under this Guideline, almost all minor supply situations where the network is small and electricity is provided for free have been deemed to be exempt.

Recent developments in alternative energy and battery systems have created a lot of interest in creating microgrids and selling power to one’s neighbours. However, you need to be cautious: although it is physically possible to supply electricity to your neighbours, you should check the laws in your State or Territory. In many places it is illegal for private wiring to cross a site boundary or public land without additional State or Territory approvals under local laws. Normally, only a registered distributor is authorised to provide this service.
Terminology

In this Guideline the terms ‘private network’, ‘embedded network’ and ‘exempt network’ are generally interchangeable. However, note that ‘embedded network’ is now a defined term in the NER. Wherever that term is used in this guideline, it has the meaning assigned to it under the NER. For the purposes of the National Electricity Law all private networks must be exempted by the AER.

The terms all refer to the physical assets that deliver electricity to another person or party. They include any privately owned wires, switches, transformers or other electrical equipment owned, operated or controlled by the applicant. However, to maintain consistency with the NER rules governing competition in metering and to avoid any misunderstanding, we now deem all metering installations to be exempt from registration, even though they may form part of a registrable network.

Deemed, Registrable and Individual Exemptions

Similar to the Retail Exempt Selling Guideline, there are three categories of exemption – ‘deemed; ‘registrable’ and ‘individual’. In section 2.3 we explain the types of exemption as they relate to particular activities. In section 3 we detail the pre–defined exemption classes and in section 4 the conditions which apply to those activities.

The range of predefined exemption classes encompasses both deemed and registrable exemptions in both Guidelines. All deemed and registrable network exemptions exempt the holder from the technical requirements of chapter 5 of the NER.

The AER has aligned many of the activity classes for deemed and registrable network exemptions with the equivalent classes in the Retail Exempt Selling Guideline. However, the Network Guideline deals with a wider range of activities than those captured under the Retail Law. Therefore, there are more classes in the Network Guideline. The predefined classes are set out in four tables numbered 1 to 4. The classes in tables 1 and 3 are related to the Retail Exempt Selling Guideline classes. The classes in tables 2 and 4 are concerned with a range of situations that are not directly related to the retail sale of electricity.

Individual exemptions operate differently between the Retail Law and the National Electricity Law. We have tried to anticipate a wide range of ‘real world’ activities in the deemed and registrable categories. We expect an application for an individual network exemption will be for some new, unanticipated activity or for a variation of the conditions attached to a deemed or registrable exemption. We therefore expect that there will be few instances where an individual network exemption is necessary.

All applications for individual exemption will be subject to a formal determination by the AER. Applications for a variation of conditions will only be granted in exceptional circumstances. All applications will also be subject to a careful examination of public benefits and any detriments to customers. They are registrable and will be published.
Exemption tables

Deemed network exemption classes are described in Tables 1 and 2 in section 3.1, along with details of the parties to whom the exemption applies. Deemed exemptions are subject to strict observance of the conditions detailed in Part B of the Guideline. Penalties may apply to any party who wrongly claims to be eligible for a deemed exemption.

Registrable network exemptions are described in Tables 3 and 4 in section 3.2, along with details of the parties to whom the exemption applies both during and after a transition period, and are subject to strict observance of the conditions detailed in Part B of the Guideline.

The NER also provides for individual exemptions, which are a single category described in Table 5 in section 3.3.

2.1.1 Basic exemption conditions

There are five basic requirements for exempt networks. An exempt person must:

- ensure that their network is safe
- have a dispute resolution mechanism
- ensure that network pricing is in accordance with this Guideline
- ensure that electricity meters comply with National Measurement Act 1960 (Cth) requirements for electricity meters installed from 1 January 2013\(^3\) and other applicable Australian standards; and
- provide ready access to retail competition where it is available in a jurisdiction.

Section 4 details the specific conditions which must be met for each exemption activity class.

Compliance with all the relevant conditions set out in this Guideline is a mandatory requirement for a network service provider exemption to be valid. Non-compliance may result in penalties in accordance with the provisions of section 11 of the NEL.

Achieving access to retail competition in embedded networks is a complex process which many will find daunting. So, before we discuss our general administration requirements for exempting networks, we discuss some general background matters.

Access to retail competition

At the time of writing Victoria, New South Wales and South Australia allow customers in private networks to exercise a right to choose their electricity retailer. To achieve this access to retail competition in these jurisdictions, special arrangements exist to create a ‘parent/child\(^4\)’ relationship for the metering. However, these arrangements have not always

\(^3\) For further information, see www.measurement.gov.au.

\(^4\) A ‘parent’ metering point is a metering point through which the energy measured is supplied to a whole building or site. A ‘child’ metering point is a metering point serving one tenant in a building or on a site through the ‘parent’ meter.
worked as smoothly as they should, which led to a rule change proposal sponsored by AEMO to expand the NER to address problem areas.5

The AEMC made the Embedded Networks rule change in December 2015, which is intended to make parent/child metering work better. The rule change requires that a special, new class of accredited NEM participant, the Embedded Network Manager (ENM) be appointed wherever customers want access to retail competition. The ENM will be tasked with ensuring the metering installation is correctly recorded in the market settlement system. Commencing in March 2017, AEMO will be responsible for accrediting ENMs and will maintain a register of ENMs.

Other NEM jurisdictions are expected to review their arrangements for access to retail competition in embedded networks. With the introduction of the new rule from 1 December 2017, the new access arrangements may also be adopted by one or more of the other NEM jurisdictions.

Elsewhere, access to retail competition through a private network is subject to agreement between the exempt embedded network service provider and the customers of that network. Customers in the ACT, Queensland and Tasmania have traditionally required a direct connection to a distributor to access retail competition. The situation which is to apply in the Northern Territory and Western Australia is subject to further consideration by those jurisdictions.

**Victoria, New South Wales, South Australia**

To make access to retail competition work it is essential that an exempt embedded network service provider not impede access to retail competition and take reasonable steps to facilitate access for a tenant.6 With this in mind, we imposed a condition in revision 1.3 of this guideline to require an exempt embedded network service provider to support retail competition, which was available in these three jurisdictions. These jurisdictions (and any who adopt the parent/child approach) have (or will have) procedures in place with AEMO (called metrology procedures) to register the ‘parent’ and ‘child’ meters for customers of private networks that access retail competition.7 Metrology procedures are very detailed. Describing how these procedures work is generally beyond the scope of this guideline but we summarize them here to help explain how access to retail competition works in an embedded network.

If you live in an apartment building or occupy a shop in a shopping centre it is quite common for there to be one meter which records all the energy used on the site. This meter is generally known of as the ‘gate’ meter. The owners corporation or the shopping centre proprietor is usually responsible for all the energy and network charges which are billed to this meter. It is important to note that the network charges are billed to the ‘gate’ meter

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5 AEMC, National Electricity Amendment (Embedded Networks) Rule 2015 No. 15, December 2015
6 In this guideline the term ‘tenant’ is interpreted in the widest possible sense and includes any tenant, resident, lease holder, strata title occupier or the like, connected to a private network and who may be subject to charges for electricity consumed.
7 AEMO, Metrology Procedure: Part A National Electricity Market, Section 2.5, pp. 38-39
because special arrangements must be made to attribute this external network cost to each user of the network.

Stated simply, an embedded network is formed when a 'parent' or 'gate' meter is placed between meters of multiple customers and the poles and wires that form part of the national grid. This simple act transforms all the electrical distribution system on the customer's side of the parent meter into an embedded network and the customers' meters into 'child' meters. Figure 1.1 illustrates an embedded network in an apartment block.

**Figure 2.1 Example of an embedded network**

![Embedded network diagram](image)

Under the AEMO metrology procedures the 'gate' meter owned by the exempt embedded network service provider must be recorded as a 'parent' meter in the market settlement system by the new retailer. Previously, where a tenant accessed an external retailer, the new retailer would arrange to install additional metering, namely a NEM registered 'child' meter to record the energy component of the bill. Arrangements needed to be made for the retailer to provide energy billing information to the exempt embedded network service provider. Also, the network charge for the energy use by a tenant (i.e. the child meter) would be manually calculated. We expect the embedded networks rule change will result in significant streamlining and improvement of these processes. An ENM will be required to actively manage these processes in embedded networks to ensure the correct information is recorded and exchanged in timely fashion.

The embedded network will incur distribution charges from the local distributor for all customers in the embedded network, including customers that obtain supply from a market retailer. This external network cost must be passed on to all the respective customers, including the market customers. The AER permits the exempt embedded network service provider to recover the associated external network component either directly from the tenant or from the tenant's market retailer under condition 4.6.2. If these arrangements are
not followed closely there is a serious risk of billing errors. These billing errors can be
difficult, if not impossible, to unravel later.

Under this guideline the exempt embedded network service provider cannot impose a
surcharge to the customer for use of the network. The recovery of externally imposed costs
is permitted, however, under charge groups A/B (see Section 4.6 of this guideline).  

Some exempt embedded network service providers may consider that they should be able to
charge extra for special electricity infrastructure they provide, particularly transformers.
However, the National Electricity Rules require the AER to set charges for network assets
owned and operated by a registered (and licensed) distribution network. This is a very
complex and involved process which takes considerable time and expense to negotiate. It is
impractical to apply this process to private networks. The AER allows ‘shadow pricing’ to
apply in this situation.

Other NEM Jurisdictions
If the AEMO Metrology Procedures for parent/child metering do not apply, a different
approach must be taken to access an external retailer through a private network. To access
a market retailer the tenant will need to first arrange a direct connection to the local
distributor, which is individually metered in the normal way. This may require changes to the
wiring within the network. Any such changes will be an expense borne by the tenant. Where
access to competition requires a direct connection, we have amended this guideline to make
clear that an exempt embedded network service provider must allow that direct connection
on reasonable terms.

Unmetered supplies
Unmetered supplies may exist for many reasons. We have established specific
circumstances where an unmetered supply is permitted. The situations we permit are limited,
especially if small customers are involved. If energy is being supplied at no cost or as part of
a broader commercial arrangement an unmetered supply is permitted. However, we
consider that small customers should not be subject to unmetered supply of electricity. Some
jurisdictions have existing unmetered supplies. Existing registered unmetered installations
are not required to be upgraded. In all other circumstances we expect meters or sub–meters
will be installed to measure the electricity supplied to a customer.

2.2 Who must register or obtain exemption?
In this Network Guideline the key regulatory factor is whether the network you own, operate
or control is providing an electricity supply to a third party for any reason. If it is, you must
register or be exempt.

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8 Note that in South Australia, the Electricity (General) Regulations 2012 – Reg. 44B (2)(b) limits the recovery of network
charges to the new energy retailer.
9 See section 4.6.1.
Technically, under a very strict interpretation of the NEL, even the simple act of allowing a cleaning contractor to plug-in a vacuum-cleaner in your office or shop may be considered to be providing a distribution service under the NEL.

Obviously, it was not the intention of the NEL to require persons to register networks for common activities like this. The exemption framework exists and this allows the AER to deem a wide range of activities like this example to be exempt. We apply this approach to a wide range of incidental activities that are relatively common or which have a low financial impact (see table 1, section 3.1.1).

Multiple parties must register

The National Electricity Law also requires everyone associated with a private network to register or be exempt. This applies to the network owner or joint owners’, a lease holder or legally appointed representatives if they have rights of control over the physical assets that comprise the private electricity network. In many cases there is no one else with these rights. If no other person or firm is involved then the network owner alone has whole responsibility for the registration and operation of the network.

Where the network owner has made an agency arrangement with another entity to be the ‘operator’ or ‘controller’ of the network, registration or exemption of that agent or entity is also required. The ‘operator’ or ‘controller’ of a network is anyone who arranges to provide services normally associated with a network service provider. This most commonly means specialist energy companies that provide services in exempt networks.

Exemption classes apply to persons including businesses that own or manage a site containing an embedded network. Examples of the services that lead to a need to register include, but are not limited to: fault response; metering and meter reading; switching (fuse removal); access management to meters and meter panels; interfacing to a NEM registered distributor about these matters, etc.\(^\text{10}\) The terms ‘operator’ and ‘controller’ are largely interchangeable when applied to a private network.

2.3 What type of exemption applies to me?

There are three types of exemption: deemed, registrable and individual. The type of exemption you may be eligible for will depend mainly on the nature of your business, who you are supplying energy to and why you are doing it.

Deemed and registrable exemptions are class exemptions that apply to certain groups of people—or classes—who sell or supply energy to a third party. Generally, deemed exemptions are targeted towards people or businesses who sell or provide a connection to electricity

\(^{10}\) The ‘agent’ operating or having control of the private network may, for example, be a property manager or a specialist energy services company engaged to arrange or provide energy services to customers. This role is generally distinct from the role of people or firms engaged by the owner or the agent to design, install or service a network such as architects, engineers and electricians. These latter activities do not normally require exemption. Also parties registered with AEMO to provide services related to an embedded network will not normally require registration.
incidentally. Energy sales and supply is not their primary business or is an incidental part of their business model. They are generally motivated by considerations other than profit.

A deemed exemption is an exemption that applies automatically to certain classes of people or firms. A party covered by a deemed exemption does not need to either apply or register with us (however, conditions will generally apply). Deemed classes are usually for small-scale selling arrangements where the costs associated with registration would outweigh the benefits of increased regulation. We apply the principle that the regulatory obligation should be proportionate to the benefits to the customer.

Situations that deemed exemptions apply to include selling or supplying electricity to:

- a related company
- fewer than 10 small tenants or residents
- short term accommodation in caravan parks or holiday parks selling metered energy
- plug-in or rack mounted equipment
- unmetered tenants in Queensland
- telecommunications companies for a telecoms related activity of any kind
- government agencies that sell metered energy ancillary to their core functions
- private solar PV inverter and generator installations
- broadcasting sites
- rail network operators
- electric vehicle charging stations
- building and construction sites
- large corporate entities (both parties: buyer and seller)
- demand-side scheme participants.

A comprehensive list of deemed exemptions is set out at Section 3.

A registrable exemption applies to certain classes of people and must be registered with us. It applies to a particular individual or entity for a particular site, and is subject to conditions. Registrable classes are for energy selling activities that we consider need greater transparency and regulatory oversight, usually because the scale of the activities is larger and the impact on the electricity market and customers is greater. Again, we apply the principle that the regulatory obligation should be proportionate to the benefits to the customer.

Situations that registrable exemptions apply to include selling or supplying electricity to or by:

- sites with ten or more small tenants or residents, or to an adjacent site

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11 Unmetered on-selling to residential customers where it is allowed in Queensland (provided certain conditions are met) under the Residential Tenancies and Rooming Accommodation Act 2008 (Qld), s.165.
- permanent residents of retirement villages or caravan parks
- large customers
- unmetered energy supply arrangements entered into prior to the commencement of the Retail Law
- generators offering market services
- mining and primary production developments
- sites where a customer can access retail competition in a participating jurisdiction.

A comprehensive list of registrable exemptions is set out at Section 3.

A network individual exemption is required in circumstances where an applicant demonstrates why they are unable to conform to all of the conditions applicable to any relevant class of registrable exemption, or where no class exists which covers the activities for which the applicant seeks exemption.

Where no class covers the activities to be undertaken an individual exemption will be tailored to the specific situation of the person or business seeking the exemption and their customer(s). Conditions attached to an individual exemption are generally applied with a view to balancing the needs and rights of customers and the regulatory burden that meeting those conditions will place on the exemption holder.

As the network exemption conditions relate to access to retail competition, safety, metering, dispute resolution and pricing, where an application is to vary the conditions we will need to be convinced of a compelling case to vary our standard conditions for these matters.

If your activities do not fall within one of our activity class exemptions you should contact us to discuss the best course of action.

2.4 How do I obtain an exemption?

2.4.1 Pre–registration

Pre–registration is permitted where a network is under construction and is expected to commence operation within 6 months of the date of registration. You can pre–register for a network exemption by following the processes outlined in this Guideline.

2.4.2 Deemed exemptions

Deemed exemptions are automatic. Provided you meet all the criteria and conditions attached to the deemed class, you do not need to apply; rather, you are ‘deemed’ to be exempt. However, if for any reason you must register an exemption for your network, you will be required to also register any applicable deemed activity classes.
2.4.3 Registrable exemptions

These exemptions are not automatic. You can register an exemption by completing our registration form, which is available online on our website. To obtain a network exemption, you need to complete Parts A, B and C of the form. Follow the instructions on the website. More than one registration class may apply. Select all that apply.

You must provide all the information requested in the form, including:

- the legal name (and trading name) of the business or person seeking the exemption, and their Australian Business Number (ABN) (preferred) or Australian Company Number (ACN)
- the site address for the exemption, the number of customers at that site and the class of exemption (for example, class NR1), and a brief description of the normal business activities undertaken at that site
- contact details of the authorised representative for the applicant.

The proforma should be repeated for any other parties (i.e. agents, energy service operators, etc.) who must also register for the network.

There is no formal approval process for registrable exemptions; your exemption comes into effect on the nominated effective date when it is published on our public register of network exemptions. Once the exemption appears on the register, it becomes a “registered exemption”. Conditions apply to all registered (and deemed) exemptions.

You should advise us if your details change, for instance if the site for which you have the exemption changes owners, or the nature of your energy selling activities changes (for example, you no longer sell energy to small non–residential customers, but to large customers).

2.4.4 Individual exemptions

We recommend that you contact us before applying for an individual exemption or if you are planning a development that would rely on an individual exemption. This is so that we can provide information and guidance relevant to your individual circumstances, and assist you with the application process. Individual network exemptions should not be necessary for common activities. Almost all common activities will be covered by a deemed or registrable network exemption. We reserve this category for new and novel situations or where a variation of conditions is considered necessary and desirable.

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12 A copy of our exemption registration form can be found here: http://www.aer.gov.au/node/476
13 If you also sell energy you may also need a retail exemption (which can be obtained by completing Part A of the form).
14 For example, retail shopping centre, residential apartment building, and caravan park or retirement village.
15 The AER’s public register of exemptions can be found here: http://www.aer.gov.au/node/2446.
Section 5.3 sets out the information that you must provide when you apply for an individual exemption. Please contact us if you cannot provide any of this information.\textsuperscript{16}

Please be aware that providing false or misleading information in an application for the grant or variation of an individual exemption is a serious offence under the Criminal Code Act 1995 (Cth). The maximum penalty for such an offence is 12 months imprisonment.

Once you have completed your application please email it to: aerexemptions@aer.gov.au with ‘Application for individual exemption’ in the subject line.

Applications for an individual electricity network service provider exemption may be lodged together with an application for an individual retail exemption.

\subsection*{2.4.5 Public consultation process}

Individual network exemptions may be subject to consultation with affected stakeholders before a determination is made. This consultation may affect only a small number of parties if a small private network is involved or, where an application has potential to affect larger groups of customers, it may involve a formal public process. In accordance with clause 2.5.1 of the NER, the AER will decide the scope of consultation on a case by case basis.

Once we have received and accepted an application for an individual exemption, we will consider whether the application raises matters which should be the subject of wider consultation. We may consult only with stakeholders directly affected by the application or we may consult broadly. If we decide to consult broadly we will publish a notice on our website:

\begin{itemize}
  \item stating that the application has been received
  \item seeking written submissions on the application from interested stakeholders.
\end{itemize}

The consultation period will run for at least 20 business days.

\subsection*{2.4.6 Confidentiality}

We understand that you may provide us with confidential information as part of your application. If you do, we ask that you clearly identify and mark anything you consider confidential and give reasons for each confidentiality claim. Please also advise us of any potential disadvantage that disclosing the information might cause you. If your application contains confidential information, you should submit both a public and confidential version of the information. You should only remove information in the public version that you consider confidential.

A confidentiality claim, by itself, is not always enough to prevent disclosure. Under the NEL and the \textit{Competition and Consumer Act 2010 (Cth)}, we may disclose confidential information in certain circumstances, for example, where disclosure would not cause detriment, or the public benefit in disclosing the information outweighs that detriment.

\textsuperscript{16} We may not commence processing your application until we have received all required information.
If we are considering disclosing this information, we will let you know and give you an opportunity to comment in the first instance.

2.4.7 Decision making process

We will advise you, in writing, of our decision. If your individual exemption application is approved, we will also advise you of the conditions attached to the individual exemption. You will need to formally accept those conditions before your individual exemption takes effect.

When considering applications for individual exemptions, we will be guided by the National Electricity Objective, which is:

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

2.4.8 Grounds for refusal

We may refuse an application for an individual or registrable exemption or we may revoke an exemption (including a deemed exemption) if, for example:

- we believe that granting a new (or continuing an existing) exemption may not contribute to the achievement of the National Electricity Objective
- there is any breach of our conditions for exemptions (Part B of this guideline)
- you have provided us with false or misleading information.

2.4.9 Location and length of exemption

Most individual exemptions will be issued for a particular site or area, and will limit the supply of energy to a certain class or classes of customers. Generally, we will not issue individual exemptions for multiple sites (but we may issue an individual exemption that covers a class of sites). We will only issue them where we consider that doing so is consistent with the NER and the National Electricity Objective.

The NER does not place a limit on the duration or validity of an exemption. However, we may impose a time limit on the grant or variation of an individual exemption. This will be determined on a case–by–case basis.

If no expiry date is stated as a condition of exemption, the grant or variation of the individual exemption will continue indefinitely, unless it is revoked or retired.

2.4.10 Change of circumstances

Your exemption will specify the conditions of the exemption. You will need to apply for a new or separate individual exemption to vary the conditions specified.

If your details change in any other way, for example if there is a change in contact details, you should contact us promptly so that we can vary your exemption.
If there is a change in ownership, the existing exemption will be retired but will not be amended or deleted. The new owner should apply promptly for a new exemption via our website, as set out in section 5.5. The site may continue to operate on the same basis as the old exemption (but to maintain services, the new owner/operator will be deemed to replace the old owner/operator in the interim) until the new exemption is published.
3 Introduction and exemption classes

Operating a network in breach of the AER’s conditions will invalidate your exemption and could expose you to sizeable civil penalties. The requirement to observe the conditions for exemption applies jointly and severally to the network owner, network operator and any party or agent of the owner or operator who has control of the private network. Please read the following sections carefully and observe all the conditions related to your activities.

3.1 Deemed exemption classes

No application is required for a deemed exemption. Note that all components of a metering installation are deemed to be exempt. All deemed exemptions are subject to compliance with the activity class description set out in Tables 1 and 2, and the conditions 4.1 – 4.8, set out in Part B of the Guideline.

To use a deemed exemption:

1. Review the Activity description and match it to your situation. Note the Activity class.
2. Look up the Activity Class in table 6 or 7 (whichever applies). Identify which general conditions apply to your network.
3. Read the relevant general conditions numbered 4.1.1 to 4.1.12 that apply to your activity class.
4. Read specific conditions 4.2 through 4.9.
5. Comply with all the applicable conditions.

3.1.1 Energy selling or energy supply at no cost

Table 1 – Deemed classes of exemption – energy selling or supply

<table>
<thead>
<tr>
<th>Class</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND1</td>
<td>Persons selling metered energy or supplying energy to fewer than ten small commercial/retail customers within the limits of a site that they own, occupy or operate.</td>
</tr>
<tr>
<td>ND2</td>
<td>Persons selling metered energy or supplying energy to fewer than ten residential customers within the limits of a site that they own, occupy or operate.</td>
</tr>
<tr>
<td>ND3</td>
<td>Persons selling metered energy or supplying energy to occupants of holiday accommodation on a short–term basis.</td>
</tr>
<tr>
<td>ND4</td>
<td>Reserved</td>
</tr>
<tr>
<td>ND5</td>
<td>All supply of energy via plug–in or rack mounted equipment in any premises.</td>
</tr>
<tr>
<td>ND6</td>
<td>Persons selling or supplying unmetered electricity to small customers in Queensland.</td>
</tr>
<tr>
<td>ND7</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
ND8 Persons selling metered energy or supplying energy to a related company.

ND9 Any supply of energy in conjunction with, or ancillary to, or to facilitate the provision of telecommunications services. Includes internet, telephone, mobile phone, fibre optic, hybrid fibre cable, television, radio, Wi-Fi or other communications technology.

ND10 Government agencies, other than housing authorities, selling metered or supplying unmetered energy to non–residential customers. This category includes all public and private educational institutions.

Notes: Classes of exemption labelled 'ND_' are 'network deemed' classes.

### 3.1.2 Deemed network specific situations

The conditions specified in Part B of the Guideline apply to all deemed network specific exemption classes. In particular, the 'applicable conditions' listed in table 2 corresponding to a deemed exemption class apply, as further modified by table 7.

**Table 2 – Deemed classes of exemption – other situations**

<table>
<thead>
<tr>
<th>Class</th>
<th>Activity</th>
<th>Deemed exemption applicable to:</th>
<th>Applicable Conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDO1</td>
<td>Off–market energy generation by equipment owned, operated or controlled by a third–party and connected to the NEM via a private electricity connection or equipment intended solely to provide emergency energy supply, or third–party renewable energy system providers</td>
<td>Energy generation (including inverter) installations not intended to supply network support or demand management services to the NEM and not otherwise required to be registered with AEMO.</td>
<td>4.1, 4.2, 4.3, 4.5, 4.6</td>
</tr>
<tr>
<td>NDO2</td>
<td>Sites broadcasting television and radio signals.</td>
<td>All situations.</td>
<td>4.1, 4.5</td>
</tr>
<tr>
<td>NDO3</td>
<td>Electric vehicle charging station within a private network (e.g. a privately owned charging station located in a public area, hotel, shopping centre, university, etc.)</td>
<td>All situations.</td>
<td>4.1, &amp; to the extent relevant: 4.2, 4.3, 4.4, 4.5, 4.6 &amp; 4.7</td>
</tr>
</tbody>
</table>

17 This class applies only to the registration requirement in rule 2.5.1 of the NER for the private network to which a generator or inverter is connected. Generator registration and exemptions are handled by the AEMO. Safety requirements for generators and inverters are determined by each jurisdiction. This class does not affect any other requirement under any other legislation or rule of the NER.

18 If you have a contract or agreement to supply network support or demand management services to a network service provider or the AEMO based on a generator or inverter you must register the private network under class NRO1 of Table 4.

19 If the charging facility is directly connected to a network service provider, no exemption is required.
### Tables 3 and 4 set out the classes of registrable exemption. More than one activity class may apply. If so, when registering select each relevant activity class. You should also select the applicable deemed categories if any are relevant to your private network.

As changed arrangements apply to access to retail competition, all registration applications which previously involved activity class NRO5 must now nominate every applicable activity class in table 3.

The conditions set out in sections 4.1 – 4.8 of Part B of the Guideline apply to all registrable exemptions, as modified by table 8 or table 9.

Any variation of these conditions requires AER approval under an individual exemption application made in accordance with sections 3.3 and 5.3.

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**Notes:** Classes of exemption labelled ‘NDO_’ are ‘network deemed other’ classes. The supply of network services in accordance with a commercial agreement between private parties is permitted for each category listed in Table 2.

### 3.2 Registrable exemption classes

<table>
<thead>
<tr>
<th>NDO4</th>
<th>Temporary supply for the construction and commissioning phase of building, civil, construction industrial, transport, mining or other projects</th>
<th>Incidental supply to facilitate bona fide construction and commissioning of new facilities on the same or an adjoining site</th>
<th>4.1, &amp; to the extent relevant: 4.2, 4.3, 4.4, 4.5, 4.6 &amp; 4.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDO5</td>
<td>Electric traction systems supplying passenger or freight vehicles and associated infrastructure (i.e. rail networks) but not including commercial and/or retail activities</td>
<td>All situations.</td>
<td>4.1</td>
</tr>
<tr>
<td>NDO6</td>
<td>Large corporate entities&lt;sup&gt;20&lt;/sup&gt;</td>
<td>All situations.</td>
<td>4.1, &amp; to the extent relevant: 4.2, 4.3, 4.4, 4.5, 4.6 &amp; 4.7</td>
</tr>
<tr>
<td>NDO7</td>
<td>Residential, commercial and industrial sites where demand-side participation equipment and facilities is installed, including the owners and operators of the equipment and facilities&lt;sup&gt;21&lt;/sup&gt;</td>
<td>All situations.</td>
<td>4.1, 4.2, 4.3, 4.5, 4.6</td>
</tr>
</tbody>
</table>

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<sup>20</sup> A ‘large proprietary company’ is as defined under clause 45A(3) of the Corporations Act 2001 or, if not a reporting entity under that Act, includes an unlisted company, trust, or legal entity which otherwise fulfills the financial and/or staffing criteria specified in clause 45A(3) of the Act. The terms and arrangements for supply between two or more large corporate entities are not regulated. However, at the point of connection to the NEM the supply arrangements must conform to the reasonable requirements of the AEMO and the local network service provider for connection to the NEM.

<sup>21</sup> Demand-side participation equipment is intended as a broad term which includes any form of customer load management capability, including solar, renewable energy, energy storage, load-control or other equipment intended to assist a consumer manage their load impact on the NEM.
### Table 3 – Registrable classes of exemption – energy selling or supply

<table>
<thead>
<tr>
<th>Class</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR1</td>
<td>Persons selling metered energy or supplying energy to ten or more small commercial/retail customers within the limits of a site that they own, occupy or operate.</td>
</tr>
<tr>
<td>NR2</td>
<td>Persons selling metered energy or supplying energy to ten or more residential customers within the limits of a site that they own, occupy or operate.</td>
</tr>
<tr>
<td>NR3</td>
<td>Retirement villages selling metered energy or supplying energy to residential customers within the limits of a site that they own, occupy or operate.</td>
</tr>
<tr>
<td>NR4</td>
<td>Persons selling metered energy or supplying energy in caravan parks, residential parks and manufactured home estates to residents who principally reside there.</td>
</tr>
<tr>
<td>NR5</td>
<td>Persons selling metered energy or supplying energy to large customers.</td>
</tr>
<tr>
<td>NR6</td>
<td>Persons selling metered energy or supplying energy to small customers at a site or premises adjacent to a site that they own, occupy or operate.</td>
</tr>
<tr>
<td>NR7</td>
<td>Persons selling or supplying unmetered energy to small commercial/retail customers at a site that they own, occupy or operate.</td>
</tr>
</tbody>
</table>

**Note:** Classes of exemption labelled ‘NR_’ are ‘network registrable’ classes.

For Class NR7, note that the AER does not support the sale of unmetered energy to small customers. Closed to new applicants. We will only consider approving an individual exemption for unmetered selling in exceptional circumstances, based on an application made in accordance with sections 3.3 and 5.3.

Class NR7 excludes private networks in Queensland that are deemed exempt under Class ND6 in Table 1.

### Table 4 – Registrable classes of exemption – other situations

<table>
<thead>
<tr>
<th>Class</th>
<th>Activity</th>
<th>Registrable exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRO1</td>
<td>Off–market energy generation by equipment owned, operated or controlled by a third–party and connected to the NEM via a private network connection</td>
<td>Energy generation (including inverter) installations intended to supply network support or demand management services to the NEM</td>
</tr>
<tr>
<td>NRO2</td>
<td>On–market energy generation by equipment owned, operated or controlled by a third–party and connected to the NEM via a private network connection</td>
<td>Energy generation (including inverter) installations required to be registered with the AEMO under clause 2.5.2 of the NER</td>
</tr>
</tbody>
</table>

---

22 This class applies only to the network to which the generator is connected. Generator registration and exemptions are administered by the AEMO. Safety requirements are determined by each jurisdiction.

23 This class applies only to the network to which the generator is connected. Generator registration and exemptions are administered by the AEMO. Safety requirements are determined by each jurisdiction.
3.3 Individual exemption

Class NRI in Table 5 refers to network exemptions specific to the circumstances of the applicant. This class will apply in circumstances where an applicant is unable to conform to all of the conditions applicable to any relevant class of registrable exemption or where no class exists which covers the activities for which the applicant seeks exemption.

### Table 5 – Individual network exemption class

<table>
<thead>
<tr>
<th>Class</th>
<th>Activity</th>
<th>Registrable exemption</th>
<th>Application for individual exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRI</td>
<td>Specific exemption of a network not otherwise described</td>
<td>All approved applications</td>
<td>Detailed application required</td>
</tr>
</tbody>
</table>

Note: Exemption class ‘NRI’ is ‘network registrable individual’ exemption.

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24 The term ‘ancillary support facilities’ is intended to be interpreted broadly to encompass a wide range of sundry activities including, but not limited to, incidental supply to local residents, local tourism, communication, health, public safety and emergency services. Supply to such loads is permitted where the cost of supply by a local distribution network service provider would be uneconomic.

25 Activity class NRO5 formerly applied only to embedded networks where customers had access to full retail competition via ‘child’ metering registered in accordance with applicable AEMO requirements. It did not apply where a customer arranged direct connection to a NEM registered network service provider or where customers within a network did not have access to full retail competition. It is now closed and table 1 or table 3 applies.
We prefer, wherever it is practicable, to convert individual network exemptions to registrable exemptions. We recommend you contact the AER and discuss your situation at the earliest opportunity before proceeding to lodge an application.

Conditions 4.1 – 4.9 of Part B of the Guideline apply to all individual network exemptions unless specifically varied by a decision of the AER. Where an application for an individual network exemption or for a variation of conditions is required, it must be made in the form set out in section 5.3 in Part C of this Guideline.

The AER decision on an individual network exemption may nominate some, or all, of the general and specific conditions apply or that different conditions apply. The default position is that all the conditions listed in Part B apply unless they are clearly irrelevant. In the absence of an AER decision to omit a particular condition, the condition continues to apply.

Parties who assume control of a private network subject to an individual exemption must, within not more than 20 business days of commencing to own, operate or control that private network, make an application for exemption in the form set out in section 5.5 in Part C of this Guideline.
4 Part B – Conditions

Our conditions for exemption are detailed in this section. It is divided into nine sub–sections, numbered 4.1 through 4.9. Section 4.1 contains twelve general sub–conditions which apply to all embedded networks, except where modified by tables 6, 7, 8 & 9 for the respective exemption class.

Sections 4.2 through 4.9 provide a detailed explanation of our requirements for metering, interaction with AEMO, distribution loss factors, pricing, appointment of an embedded network manager, information provision and conversion of an existing site.

These conditions will only be varied by the AER in response to a written application (see sections 3.3 and 5.3) demonstrating that exceptional circumstances apply. We consider exceptional circumstances should mean that a material detriment to customers will be significantly reduced or eliminated by varying these conditions.

4.1 General requirements

Words in italics are primarily intended as commentary to assist understanding of a condition but also form part of the condition. Where a tick appears in a table the numbered condition applies to the named exemption activity class. Where the words “Not applicable” appear in any of tables 6, 7, 8 or 9, the numbered condition does not apply to that class of activity. Where a clause reference appears, only that specific clause applies.

1. All meters 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. 

   This condition applies to all metered energy situations. It does not apply if an unmetered supply is permitted by the AER.

2. All paid energy consumption must be metered except where the AER has determined an unmetered supply is permitted.

   Note that the AER does not approve unmetered supplies except in unique or exceptional circumstances. Metering is not required if no charge is levied for electricity or for the recovery of energy supply costs from a tenant or co–tenant.

3. All private 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.

   In some jurisdictions larger networks may also have an obligation to have current, and/or maintain, a safety management plan or similar, with a competent safety authority or regulatory agency within that jurisdiction. You must obey these local safety requirements.

   All owners and operators of private networks must comply with the reasonable requests of a local Distribution Network Service Provider (DNSP) for demand forecasting data,
relevant details of the physical network infrastructure and assets and any other data relevant to the control, operation or maintenance of the network.

Electrical networks may be subject to mandatory load shedding requirements in emergency situations, in accordance with the NER. This requirement will generally be specified by the local DNSP in the connection agreement for the connection to the NEM system.

There are no exceptions to these safety requirements.

4. Any generation source located within a NSP’s private network must be designed in the event of a loss of supply from the local DNSP’s network to either:
   
   (a) shutdown entirely or
   
   (b) disconnect from that other network (i.e. ‘island’) and not reconnect except in accordance with arrangements approved by the relevant NEM registered network service provider.

   Applies whenever a private network contains a generation or inverter source of any kind.

5. All selling of electricity conducted within a private network must be undertaken by:
   
   (a) a registered market retailer, or
   
   (b) by the holder of a valid retail exemption or authorisation registered with the AER, or
   
   (c) by a party or parties entitled to a deemed retail selling exemption in accordance with the current AER Exempt Selling Guideline, or
   
   (d) a person authorised to sell electricity in accordance with regulations in force in a jurisdiction where the National Electricity Retail Law does not apply.

   Applies whenever energy is exchanged for money across a private network.

6. A private network must have in place dispute resolution procedures. Where retail on-selling is occurring under the Retail Law and a dispute resolution mechanism is available under that Law, the same arrangement may apply for the resolution of disputes. In all other circumstances a suitable dispute resolution mechanism must be specified in the formal agreements between the network owner or its appointed agent and the end-use customer. These procedures must allow a customer to request, and be provided with, written details of all charges applicable to that customer. In addition:
   
   (a) In the event of a dispute concerning the sale of energy to an exempt customer, and in the absence of a determination of the relevant tenancy tribunal if the customer is a tenant, the exempt embedded network service provider must:
   
      i. make reasonable endeavours to resolve the dispute, and
   
      ii. advise the exempt customer of any right that the exempt customer has to access the energy Ombudsman scheme or any other relevant external dispute resolution body in the state or territory in which the exempt customer is located, if applicable.

A dispute resolution mechanism does not require approval by the AER, but 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.

Where a network owner or operator appoints an agent they, as the principal, remain responsible for ensuring this condition is satisfied.

7. Where a single customer has energy delivered to adjoining sites or to multiple exempt sites within a jurisdiction and the sites are subject to a common supply arrangement and suitable metering is installed, meter readings for that customer may be aggregated for corresponding time periods.

'Suitable metering' means meters that record energy to the same accuracy class and equivalent time intervals, but not necessarily meters of identical design. ‘Exempt sites’ refers to private networks.

This condition is permissive in its operation: it allows a proprietor or customer of one or more private networks to negotiate a bulk pricing arrangement with a willing retailer. This condition does not require that meter readings must be aggregated: it only permits them to be aggregated if a commercial agreement exists to do so. Note also that this condition does not require any NEM service provider or AEMO to modify its systems or procedures to facilitate aggregation.

8. An application for registration of an exempt network is to be made within 20 business days of acquiring a requirement to register. Applications for exemption are personal to the applicant. They are not transferable.

Note that registrable exemptions require minimal effort for the new proprietor of an existing registered exempt network to obtain. Therefore, there is no practical impact in requiring a new application. Note also that no application is required for a deemed exemption category.

9. The AER may revoke or amend an exemption at any time or may vary the conditions applicable to an exemption from time to time.

If the AER does so it will notify a registered applicant using the registered contact details or otherwise, in accordance with the procedures set out in this Guideline and the NER. There are no exceptions to this requirement.

10. Where notified by a customer (‘life support customer’) of the existence of a requirement to maintain supply for life support equipment, the exempt embedded network service provider must, without undue delay, promptly notify:

(a) before 1 December 2017: the local DNSP of the existence of a life support requirement in accordance with the reasonable requirements of the local DNSP;

and

(b) from 1 December 2017: 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.

Applies whenever electricity is provided to across a private network to an eligible retail customer.

11. An exempt embedded network service provider must not disconnect supply to a life support customer without making arrangements for the safety of a life support customer.

Applies whenever electricity is provided to across a private network to an eligible retail customer.

12. Where an exempt embedded network service provider must appoint an embedded network manager (i.e. an ENM as defined above) to comply with condition 4.4, the appointment must also comply with condition 4.7.

1. Where an exempt customer is eligible under state or territory legislation to purchase energy from a retailer of their choice, the exempt embedded network service provider must not do anything to discourage or prevent them from exercising this choice, whether by:

(a) requiring the exempt customer to waive their ability to choose a retailer; or
(b) unreasonably hindering their efforts to find another retailer; or
(c) imposing a requirement for compensation for lost capital, income or profit by a customer exercising the right to access a market retail offer; or
(d) allowing, causing or permitting any other person to do any of the things mentioned in (a), (b) or (c) above;

and, except where the requirements of section 4.9 have been met:

(e) an exempt embedded network service provider or agent must not alter the electrical supply arrangement to a customer or tenant in a private network directly connected to a registered distributor without the written consent of that customer, resident or tenant, freely given; and

(f) a customer, resident or tenant of commercial, industrial or residential premises must not be compelled to become part of a private network or subject to an exempt selling regime without the express written consent of that customer, resident or tenant.

2. Where condition 4.1.12.1 does not apply, an embedded network owner must not prevent or unreasonably impede a customer, resident or tenant within the embedded network from obtaining, at their own cost, a direct connection to the local distributor.

4.1.1 Exemption Class condition tables

The tables are set out on the following pages.
Table 6 – Deemed classes of exemption – energy selling and supply at no cost

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Table 7 – Deemed classes of exemption – other situations

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### Table 9 – Registrable classes of exemption – other situations

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### Table 10 – Individual network exemption class

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4.2 Metering installation and NEM requirements

The following requirements apply to all new metering installations and to any reconfiguration of an existing metering installation within an existing embedded network. This clause also applies to an activity class where condition 4.1.12 applies, as set out in tables 6, 7, 8, 9 & 10.

Metering at the parent connection point of an embedded network is to be determined in conjunction with the relevant transmission or distribution network service provider’s requirements for connection of a customer. Metering requirements for child connections in an exempt embedded network, including a requirement to appoint an ENM, are set out in section 4.2.2. A metering installation is non-compliant if the metering installation does not conform to current standards for NEM metering in any material respect.

An existing non-compliant metering installation for a child customer in an embedded network must be upgraded at the cost of the exempt embedded network service provider except where:

(a) the child embedded network customer has not sought to take advantage of a market retail offer; or

(b) the metering installation was in existence on 1 January 2012 and was not altered after that date; or

(c) a metering installation was installed on or after 1 January 2012 and that installation complied with the requirements of this guideline in force on the date of commissioning or first use of the installation; or

(d) a customer, market retailer or other person provides a replacement metering installation of their own volition.

4.2.1 Transmission networks

Regardless of whether a transmission network is registered with AEMO or exempted from registration by the AER, all metering in electricity transmission networks must be installed in accordance with all reasonable requirements of AEMO and additionally, in accordance with the requirements specified in a connection agreement with a network service provider.26

26 A transmission network as defined in the National Electricity Rules is nominally one which operates at voltages of 220 kV and above or, subject to a determination by the AER, at lower voltages in parallel with and providing support to the main transmission network.

An exempt embedded network service provider must maintain and operate (or ensure their authorised representatives maintain and operate) all equipment that is part of their facilities in accordance with:

(a) relevant laws;

(b) the requirements of the National Electricity Rules as apply to the safe, reliable and secure operation of the National Electricity Market as advised by AEMO; and
(c) good electricity industry practice and relevant Australian Standards.

When requested to do so, an exempt embedded network service provider must negotiate in good faith to permit access to an exempt electricity transmission network on reasonable commercial terms. This condition does not require an exempt embedded network service provider to offer firm access to the exempt network.

4.2.2 Distribution networks

Where AEMO advises that an exempt distribution network operating at a nominal voltage of 66kV or more is likely to affect the safe, reliable or secure operation of the National Electricity Market, an exempt embedded network service provider must maintain and operate (or ensure their authorised representatives maintain and operate) all equipment that is part of their facilities in accordance with:

(a) relevant laws;

(b) the requirements of the National Electricity Rules as apply to the safe, reliable and secure operation of the National Electricity Market as advised by AEMO; and

(c) good electricity industry practice and relevant Australian Standards.

4.2.2.1 Basic metering requirements

An exempt embedded network service provider must ensure that all metering installations used in a private network are fit for purpose and compliant with the requirements of the National Measurement Act, which Act is administered by the National Measurement Institute and the regulations in force under that Act.

An embedded network metering installation for which an ENM must be appointed must be installed and operated consistent with the AEMO Metrology Procedure: Part A National Electricity Market. The metrology procedure and technical standards applicable to a metering installation remain subject to the laws of the jurisdiction in which the installation resides.

In addition to any other requirement under the NER and/or jurisdictional requirements for a metering installation, all meters installed in an exempt distribution network must be in an accessible location with safe, convenient access at no cost to the customer to facilitate meter reading by the network operator and the customer or their respective agents and, where relevant, to permit meter testing and maintenance.

Where security or safety considerations result in limited access to metering, local arrangements must be made that allow customers or their agents ready access to metering on request and at no cost to the customer. The use of a web portal or other electronic means of providing customer access to metering data is permitted. The provision of an alternative access option does not replace the right of the customer under this condition to physically inspect a meter at no cost at least once every month during business hours or at another mutually agreed time.
4.2.2.2 Competition in metering rule change

From 1 December 2017, the Competition in Metering rule change applies to NEM metering installations. Where an ENM must be appointed in a state or territory under this guideline, the current functional specification for new or replacement metering installations under the NER applies to all new embedded networks and to any rebuild of an existing network which involves a replacement of more than 50% of the then active metering installations.

4.2.2.3 Retail competition – access requirements

Where a market retailer accesses an existing embedded network child meter the market retailer or the customer (as the case may be) may:

(a) purchase or lease the existing meter from the owner of the meter; or

(b) replace the meter with a meter of their own choosing.

If option (a) applies, the purchase or lease of the meter and the arrangements to access meter data are to be determined at the discretion of the retailer or, otherwise, by the customer.

If option (b) applies, no compensation is payable to the exempt embedded network service provider for the unrecovered cost of the meter.

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. Where access to retail competition by parent/child metering is not available in a state or territory, an exempt embedded network service provider must not unreasonably prevent an embedded network customer from arranging at their own cost a direct connection to a local distributor.

4.2.2.4 Prohibition of measures which impede competition

The AER does not permit an exempt embedded network service provider to impose any measures on a customer either directly or indirectly, which would impede or penalise a customer seeking access to retail competition. The prohibited measures may be either physical, financial or contractual.

From the earlier of the effective date of this guideline and 1 December 2017, an exempt embedded network service provider is not entitled to receive and must not impose a requirement for compensation on a person, Owners Corporation, body corporate, strata corporation, landlord, resident, tenant or trust for the loss of capital, income or profits however it arises resulting from the exercise of a customer of the right to access an alternative retail market electricity price offer.

A supply contract must not include any charge for early termination of the supply agreement or any condition which unreasonably restricts the ability of a consumer to access an alternative retail market offer or that requires the exempt embedded network service provider to be the sole supplier of any metering related service.
4.2.2.5 Meter accuracy testing and billing disputes

In the event of a billing dispute, an exempt embedded network service provider must inform a customer of the right to request a meter test. A copy of the notice must be retained by the exempt embedded network service provider and be available for inspection on request by the AER. If requested in writing by a customer to perform a metering test, the exempt embedded network service provider must demonstrate that the metering installation is accurate to the applicable standard specified in schedule 7.2 of the NER. If the customer does not request testing or waives the right to testing, the meter is deemed to be accurate.

An offer to conduct a metering test must be in writing and, if a cost may be incurred, must declare the cost to be incurred by the customer if the meter is found to be accurate. The offer must also state the customer bears no cost if the metering installation is found to be deficient in any material respect. For the purposes of this condition, a defect is not material if it does not affect the accuracy or timeliness of metering data obtained from the metering installation.

If the meter has not been installed and maintained to an appropriate standard or is not accurate relative to the applicable standard specified in schedule 7.2 of the NER, the cost of testing must be borne by the exempt embedded network service provider. The reasonable cost of testing may be recovered from a customer if:

(a) the meter is tested and found to be accurate; and,
(b) the metering installation has been installed to an appropriate standard; and
(c) the metering installation has been maintained to current NEM standards up until the time of testing; and
(d) there is no evidence of a material defect as stipulated above; and
(e) the customer requested in writing that the meter be tested.

Testing may require that the exempt embedded network service provider arrange for a specialised electrical contractor to install a calibrated ‘check meter’ for a period to compare the readings of your metering with the check meter.

4.2.3 Off–market and on–market energy generation

All generation installations (i.e. all off–market and on–market energy generation, including inverter systems), whether connected directly or indirectly to a NEM distribution network, must be metered in accordance with the applicable requirements for connection to a NEM distribution or, where applicable, transmission network.

Caution: Generator and inverter installations within private networks do not necessarily have access to government incentive schemes. A generator or solar PV inverter system not directly connected to the local distributor may have no access, or restricted access, to government or industry incentive programs. In particular, access to feed–in tariffs may not be available for such generators. This can be an issue for situations like retirement villages which install solar systems. You should consult your local energy authorities to determine if suitable arrangements can be made before investing in such systems.
The AER considers that the metering requirements imposed for small generator installations within private networks should be proportional to the size of the installation and kept to the minimum necessary to adequately record energy flows to and from the NEM. For all generator and inverter installations adequate metering must be determined in consultation with the relevant NEM registered service provider. For small installations this may involve a bidirectional meter installed at the connection point to the local distribution network. Further details of metering requirements must be obtained from the local electricity distribution or transmission network service provider. Additional requirements set by AEMO apply to generator or inverter installations larger than 30MW.

Special note for generator and inverter installations: Simply owning a generator or solar inverter does not automatically mean an exemption is required for your network. Exemption of a network is required only where a third party is involved.

For example, a shopping centre will have tenants and often, a generator. In this example we assume the tenants are being supplied by the shopping centre through an embedded network. The shopping centre network must be exempted because of the supply to third parties (i.e. the tenants), not because it has a generator. However, the situation changes if the generator belongs to someone else (a third person) and is supplying electricity to the shopping centre or to the NEM – then the shopping centre network must be exempted because the shopping centre is supplying a distribution service to the generator.

Also, network users should be aware that additional jurisdiction specific regulations exist which impose additional requirements on the installation of generators and inverters (with or without batteries or other storage). Even if it is your network and it is your equipment connected to the network you must still comply with the local safety requirements. Contact your local distributor for details.

4.2.4 Electric vehicle charging facilities

As this is a deemed exemption category, no application is required for this exemption.

This classification applies to a private network with a vehicle charging facility owned by another party connected to the private network. An example might be a shopping centre which allows a vehicle leasing company to install a charging system that can be used by members of the public. An exemption is required by the shopping centre because their private network sits between the distributor and the charging facility.

On the other hand, no network exemption is required if the vehicle charging facility is directly connected to the local distribution network. It will be directly metered by the local distributor. This applies wherever there is a direct relationship between the distributor and the charging facility.

Note that the supply of electricity from a charging facility to a vehicle is a service to the transport sector, which is not regulated by the AER.

Where the facility operates only as a load, metering and charging arrangements within the private network may be determined by agreement between the network owner/operator and the proprietor of the charging facility. Although the AER prefers all connections be metered,
we permit private commercial and industrial (but not residential) vehicle charging arrangements which include an unmetered connection.

A vehicle charging facility which has a capacity to export electricity into the local distribution network must comply with the metering requirements in clause 4.2.3 for energy generation sources.

4.3 Metering operation and maintenance

This condition only applies wherever a meter is required to be installed.

An exempt embedded network service provider must operate and maintain a metering installation which they own, operate or control in accordance with the requirements of schedule 7.3 of the NER. For the purposes of this condition, the exempt embedded network service provider is deemed to be and must undertake the role of the 'responsible person' where mentioned in schedule 7.3.

4.4 AEMO requirements for access to retail competition

This condition applies where an exempt customer is eligible under state or territory legislation to purchase energy from a retailer of their choice and a customer must access retail competition through a parent metering installation serving an exempt embedded network service provider. This requirement includes any embedded network that would otherwise be deemed exempt.

4.4.1 Appointment of an ENM

Subject to the further requirements specified in section 4.7, an embedded network manager must be appointed and an appointment maintained if the trigger conditions specified in condition 4.4.2 are met. It should be noted that if the requirements specified in condition 4.7.2 for reversion to no ENM have been met, this condition will not apply.

4.4.2 ENM appointment trigger conditions

The relevant activity classes which require the early appointment of an ENM are those involving small and large residential, commercial and industrial customers. Subject to the further requirements set out in this condition, the relevant exemption activity classes for which an ENM must be appointed are ND1, ND2, ND10, NR1, NR2, NR3, NR4, NR5 and NR6 ('relevant activity classes').

An exempt embedded network with 30 or more customers operating in a relevant activity class and not subject to a non–appointment or reversion entitlement under condition 4.7.2 must appoint an ENM by:

(a) existing networks: 1 December 2017; or
(b) from 1 December 2017: immediately on the network commencing operation.

For each activity class not listed above we have determined the costs will outweigh the benefits of the appointment of an ENM.
We have omitted class ND3 from the relevant activity classes. This class concerns short-term rental accommodation (as is common in tourism). We do so on the basis that the transient nature of those tenancies makes it unlikely that there would be sufficient opportunity to offset the transaction costs of appointing an ENM.

We also omit specific reference to the generation, industrial and commercial situations described in tables 2, 4 and 5 on the basis that these situations are likely to involve a direct arrangement with a market retailer with the necessary accreditation to correctly manage the metering installation. In these circumstances, the costs of appointing an ENM are likely to outweigh the benefit of an early appointment.

For any of these situations though, if the appointment of an ENM becomes necessary because an ENM conditions trigger has arisen as provided for in clause 2.5.1(d2) of the NER, an accredited ENM must be appointed in accordance with rule 2.5.1(d2).

4.4.2.1 Small size network threshold

Note that in this condition 4.4.2.1 we use the term 'ENM trigger event' for convenience. It should not be mistaken for the similar term defined in the NER: ENM conditions trigger.

We have determined under clause 2.5.1(d2) of the NER that some network activity classes should be exempted on the basis of size from appointing an ENM immediately. We consider that scale is an important consideration for these activities. Discussion with industry representatives would suggest that networks with fewer than 30 small retail customers are less attractive than larger networks because of transaction costs.

We accept that small networks have a higher sensitivity to transaction costs than larger networks but note the choice of a threshold is, in some respects, arbitrary and will vary considerably depending on a range of factors which may include the actual load of customers and the efficiency of ENM and market retailers. In the absence of clear demarcation point, we consider for the purpose of this draft guideline thirty (30) is a reasonable threshold below which the immediate appointment of an ENM is not required. We note that this threshold may change as a result of this consultation. If so, we may vary this threshold in the final guideline.

For networks with fewer customers and/or smaller loads we also consider it possible that the exempt embedded network service provider may be willing to match the prices proposed by the market retailer. This may result in a net saving for both the exempt embedded network service provider and the customer or customers of the network. In condition 4.7.2 we provide the exempt embedded network service provider a window of opportunity to make a counter-offer in some circumstances. If no counter–offer is made or if a counter–offer is not accepted then the ENM trigger event requirements are satisfied and an ENM must be appointed.

As the timeframe for actions required to appoint an ENM is limited, we expect that all parties will communicate electronically, either by email or SMS communication or other similar means.

This condition concerns small residential customers in activity classes ND2, NR2, NR3 and NR4 and small commercial, retail and industrial customers governed by activity classes ND1, ND10, NR1 and NR6. When an ENM trigger event occurs, an ENM must be appointed.
For an exempt embedded network with 29 or fewer small customers, an ENM trigger event occurs when the following is satisfied:

(a) a customer or a retailer notifies the exempt embedded network service provider of the desire of the customer to access retail competition; and

(b) where an eligible member of an eligible community notifies the exempt embedded network service provider as provided for in condition 4.7.2 that the customer does not accept a binding written price counter–offer; and

(c) the cooling off period for that market retail contract has expired.

A notice under this condition must be addressed to the exempt embedded network service provider at the normal business address of the network. If the network is registered with the AER, the notice may be addressed to the address recorded in the public register of network exemptions. The notice may be in writing or delivered electronically by email or SMS.

4.4.3 Registration required when an ENM is appointed

Class NRO5 was originally introduced to distinguish embedded network metering systems which had been established specifically to support access to retail competition. Early registrations did not require the NDx or NRx activity classes of tables 1 or 3 to be recorded. With the introduction of the amended rules governing embedded networks, we will cease to apply class NRO5. This is on the basis that the default position is that in all NEM jurisdictions where access to competition is available, all metering installations will be required to be capable of facilitating that competition, either immediately or following additional metering works.

For all embedded networks for which an ENM has been appointed, registration in the relevant activity class or classes is required. An existing registration must be updated or amended where necessary to record each relevant NDx or NRx activity class. An existing registration may also be amended to add or revise any other relevant activity classes. An amendment should be lodged with the AER within 20 business days of the appointment of the ENM.

4.4.4 AEMO metrology and guideline requirements

The metering arrangements for customers obtaining supply from a NEM registered retailer must comply with all applicable NER and AEMO requirements for the installation and maintenance of a metering installation, the registration of meters, provision of metering data and, where necessary, the transfer of the customer to another retailer. These requirements are published by AEMO in a metrology procedure and the associated AEMO embedded Network Guideline.27

An exempt embedded network service provider is required to appoint an accredited ENM to perform these tasks. These tasks may only be performed by an exempt embedded network service provider if that exempt embedded network service provider has obtained

accreditation from AEMO and holds a current registration with AEMO which has not been suspended or revoked.

4.5 Distribution loss factors

Unless you are setting up a large new private network, you own a large generator in a private network or you are very large load in a private network (think large factory) this section does not apply to you. Your distribution loss factor is the ‘standard’ loss factor applied by the local distributor to other customers similar to you. See sub-clause 4.5.1 below.

Network losses in a small private network will generally not be of sufficient magnitude to warrant calculating a distribution loss factor (DLF) for meters within that network. To avoid imposing additional costs on private networks we apply a policy that for small customers the losses within the private network can be ignored for each individual child meter. This policy means the exempt embedded network service provider must absorb the cost of losses in the private network in their overheads. Offsetting this cost though, we also note that we allow shadow pricing to apply to network charges. This results in a differential between network costs paid by the exempt embedded network service provider and the sum of the costs paid by customers, which differential will normally favour the exempt embedded network service provider. We consider this policy is balanced and fair as the profits made on the network charge can compensate the exempt embedded network service provider for the electrical losses incurred.

DLFs are governed by clause 3.6.3 of the NER. Under clause 3.6.3(b)(2)(i)(B) a ‘small load’ is any load or a collection of loads which, in total, is less than 10MW peak demand or 40 GWh per annum. It is rare for a private network to exceed this size.

1. In private networks which constitute a ‘small load’ and which serve a number of smaller loads (‘children’), the DLF of each child meter is the published DLF that would be applied by the local DNSP at the metered point of connection if the DNSP were serving the customer directly. If this DLF cannot be readily ascertained, the DLF is the DLF otherwise applicable to the connection of the embedded network to the local distribution network, i.e. at the ‘parent’ meter.

Under this policy, for all small loads it is assumed the effective DLF of the embedded network is 1.000. The losses within the private network are ignored. Instead, we apply the standard DLF applicable to ordinary distribution customers in the equivalent distribution tariff class to the ‘child’ meters within the installation. This is the approved DLF as would be determined by the local DNSP if the local DNSP were supplying that metering installation.\(^\text{28}\) The means that the operator of a private network applying clause 4.5.1 does not need to calculate and seek annual AER approval of a DLF for the child meters within that network.

Large loads, generators and site specific loss factors

Where the parties are large corporate entities or large customers applying charging group C and settlement is handled privately, AER approval of an agreed DLF methodology is not

\(^{28}\) See: http://www.aer.gov.au/node/484, select the category: ‘Distribution Loss Factors’ and the most recent year.
required. Annual approval may take the form of an annual confirmation that the pre–agreed methodology for calculation of the DLF continues to apply. The agreed DLF must be reported to the AER annually and remains subject to publication by the AER and AEMO under clause 3.6.3 of the NER. However, in the absence of a private agreement and if the combined loading results in an embedded network becoming a significant load, condition 4.5.2 or 4.5.3 below will apply.

Clause 3.6.3(b)(2)(i) of the NER governs the calculation of a DLF for large loads and generators connected to a network. In private networks involving loads or generators otherwise described in clause 3.6.3(b)(2)(i), a site–specific DLF for those loads or generators must be calculated in accordance with clause 3.6.3(b)(2)(i) using the methodology published for this purpose by the local DNSP.

2. The methodology for calculating a DLF is the same as that published by local DNSP; or

3. Where the methodology of the local DNSP is not suitable for the calculation of a site–specific DLF for any reason, the network operator and the connecting party may jointly approach the AER and seek approval of an alternative methodology for determining the applicable allocation of electrical losses between the parties. Approval by the AER will be subject to there being no material impact on the rights of another party as a consequence of the alternative mechanism.

DLFs, including site–specific DLFs, calculated in accordance with conditions 4.5.2 and 4.5.3 must be approved annually by the AER in accordance with the NER, clause 3.6.3(i). Where the customers are small customers or a DLF is needed for settlement via the AEMO market settlement systems, the DLF calculated will be subject to the AER’s annual audit requirements for DLFs. The methodology used will also be subject to approval by the AER.

4.6 Pricing

The following paragraphs describe predefined pricing arrangements accepted by the AER for network charges in private networks. Table 11 sets out the charge groups which may apply to private networks.

Table 11 – Network charges – applicable charge groupings

<table>
<thead>
<tr>
<th>Charge Group</th>
<th>Description</th>
<th>Applicable situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Bundled energy and external network tariff</td>
<td>All retail selling (i.e. the vast majority of situations whereby energy is sold to customers within a private network).</td>
</tr>
<tr>
<td>B</td>
<td>No additional</td>
<td>Unrestricted: there is no charge for the network or, the applicant is billed for network services by a distributor and is passing that</td>
</tr>
</tbody>
</table>

The NER specifies that the methodology for the calculation of distribution loss factors is either the methodology published by the local DNSP or as published by the AER. However, we consider publishing a single national DLF methodology would be impractical. This is because the methodologies that apply in each jurisdiction vary widely and doing so would result in significant disruption in a number of jurisdictions to existing pricing arrangements and unduly impact consumers.
network charge | cost on to customers in proportion to their metered energy use or, the pass-through of costs incurred to meet customer requirements.
---|---
C | Value added services
Large customers and network specific activities subject to commercial arrangements agreed between consenting, well informed (i.e. sophisticated) customers. Eligible private networks only. Restricted application (see text).
Charging mechanism for network charges is specified in a commercial agreement.

D | Separate charge for private network facilities
Registered & individually exempted networks. Pricing determined by the AER.

E | Rebate for exported energy
Unrestricted.

### 4.6.1 Charge groups

**Amended treatment of charge groups**

When registering an exemption, we now only require the dominant applicable charge group be nominated. The distinction between charge groups A and B is historical. We now treat charge groups A and B as a single group. Charge group E was introduced as a transitional measure. We consider with the widespread development of embedded generation, solar PV systems and storage, separate registration in this group is no longer required if the activity occurs in conjunction with charge groups A, B or C. We now treat charge groups A, B, C and D as automatically including charge group E.

#### 4.6.1.1 Group A

May apply to any retail on-selling situation where customers are charged an energy only charge, a shadow-priced network charge or all-inclusive tariff which includes external network charges. This is the most common category of charging.

If the external network charge is clearly attributable to a specific customer, it may be passed through at cost to that customer. Alternatively, if the charge cannot be readily attributed to a particular customer, the network charge for each customer may be based on a charge no greater than the published regulated charge which the DNSP would have charged that customer, had the customer been served directly by the distributor.

In this guideline we refer to this arrangement as 'shadow pricing' of the network charge. Note that the private network must not charge fees for services which would not be charged by the distributor to a customer in the same circumstances. We have attached a schedule of charges which we consider may apply to customers in normal circumstances.

Many energy consumers are ultimately concerned with the overall expense of their energy consumption. The critical point of comparison in this situation is the bundled price of energy...
and network charges. We consider that bundled tariffs which include all network charges are unlikely to be contrary to the long term interests of consumers.30

4.6.1.2 Group B

Network only charge. Applies to an embedded network where all customers are receiving an energy only offer from a market retailer and there is no exempt selling occurring. No charge is allowed for the private network assets. However, externally imposed charges may be applied pro-rata to customers as per condition 4.6.2, which condition may apply in any private network situation.

Note that the agreed cost for the initial establishment or upgrade of a network to meet customer requirements may still occur, i.e. may be passed through to the customer, in accordance with a bona fide lease or ancillary agreement between the network owner, operator or controller (as appropriate) and the network customer. Such charges may be subject to normal commercial financing arrangements.

4.6.1.3 Group C

This charging group applies to large customers and large corporate entities. It does not apply to small residential, retail, industrial or commercial customers.

This group is applicable to network charges for exempt network classes NDO1, NDO2, NDO3, NDO4, NDO5, NDO6, NR5, NRO1, NRO2, NRO3 and NRO4 and individual exemptions approved by the AER in accordance with section 5.3 of this Guideline.

For large customers only, network charges may be based on a commercial agreement, freely entered into on mutually agreed terms. If agreement cannot be reached then charge groups A and/or B apply.

For large corporate entities, no restrictions apply. Parties must reach an agreed commercial solution or subject their disagreement to a dispute resolution process.

This group also is intended to apply to commercial, industrial and mining situations and private networks serving large customers or on-site generation exporting to the NEM. The principle which applies here is that commercial arrangements between parties with similar bargaining power should not be regulated.

Energy on-selling to small customers is not permitted within this charge group in accordance with the relevant provisions of the AER’s Retail Exempt Selling Guideline.

Where it can be demonstrated that access to the NEM would not otherwise be available except at significant incremental cost to the affected customers, the network may also service supporting infrastructure, isolated communities, emergency services, farms and pastoral holdings and unrelated loads or generators on reasonable commercial terms.

30 This charge implicitly is a form of ‘shadow price’. A customer is able to compare this price with other retail offers and thus can make an informed selection.
4.6.1.4 Group D

Charge group D is for new individual exemptions only. Exemptions applying this charge group require an individual exemption approval by the AER in accordance with section 5.3 of this Guideline. Approval will only be contemplated in exceptional circumstances.

Parties wishing to earn a commercial return on network assets should generally be registered as a network service provider and be subject to the operation of chapter 6 or chapter 6A of the NER. Applicants in this charge group would need to demonstrate that NEM registration and compliance costs would be disproportionate to the size of the community to be served by the network and that compelling grounds exist for an exemption to be considered.

4.6.1.5 Group E

Where a generator within a private network earns credits for energy exported to the NEM all credits remain the property of the embedded generator. All credits must be rebated to the embedded generator or, if more than one, to each embedded generator in proportion to the credits earned. This requirement does not prevent the owner of an embedded generator from entering into an agreement with another party to reallocate those credits.

For example, a retirement village may develop a community scheme whereby each resident with a PV system surrenders their rights to the credits earned on appropriate terms.

Where relevant, this charge group will apply automatically, in conjunction with any other applicable charge group (i.e. charge group A, B, C or D). This is to accommodate the addition of a generating option to an existing embedded network.

4.6.2 External network charges

External network charges may be levied by a registered NEM network service provider and charged to the parent meter of a private network. These charges are known variously as ‘transmission use of system charges’ (TUOS), ‘distribution use of system charges’ (DUOS) and ‘network use of system’ (NUOS) charges depending on the State in which the network is located. Such charges may be apportioned to each customer in a private network on a ‘causer pays’ basis in proportion to the metered energy consumption of each customer over the equivalent period no matter which charge group or groups apply (see Table 11).

Alternatively, the charges borne by each customer may be determined on a ‘shadow price’ basis. In this context a ‘shadow price’ is charging each customer a tariff no greater than the tariff that would have applied had that customer obtained supply directly from the local NEM registered distribution or, where appropriate, transmission company.

We recognise that these charges may be difficult to apportion on a precise basis, especially where time variable charges apply. The shadow price approach may be simpler to implement in those situations or in situations where bulk supply is obtained at a different voltage level.
4.6.3 Internal network charges

We do not encourage separate network charges for private networks. Few, if any, situations currently exist where such charges are warranted. The formal determination of network charges by the AER is a complex and involved process, the costs of which will usually be disproportionate to the scale of a private network.

Where an embedded network exists within a commercial building, shopping centre, airport, residential apartment building, retirement village or the like, the AER considers the network development costs to have been met in the initial establishment of the facility. Such costs are capital in nature and are normally recoverable through lease payments, fit–out charges or the like. A charge for network services is not appropriate as it may result in the customer being charged twice for the same facility.

Accordingly, no charge is permitted for energy network services except where the parties have entered into an agreement on mutually agreed terms and both parties are:

- large customers; or
- large corporate entities.

4.6.4 Charging customers

Our agreement to a network charging mechanism is predicated on a requirement that there must not be a sustained over–recovery of any network charge. Where an over–recovery occurs, it is required to be rebated to customers at intervals of not more than annually. Note that the energy component of any charge is subject to the Retail Exempt Selling Guideline.

An exempt embedded network service provider must:

(a) not impose any network charge on an exempt customer that would not be charged by the relevant local area distributor to that customer if the customer were directly connected to the distributor and subject to a standard distribution connection contract;

(b) provide notice to the exempt customer of any change in the exempt customer network tariff as soon as practicable, and no later than the exempt customer’s next bill; and

(c) limit any fee charged to a customer for late payment to a recovery of reasonably incurred costs by the exempt embedded network service provider as a result of the customer’s late payment.

A charge under this provision must be directly linked to a tariff schedule approved by the AER and published by the relevant local distributor. A charge may not exceed (but may be less than) the applicable tariff schedule item.

4.6.4.1 Meter reading charges

A meter reading charge may only be levied at a frequency of once per billing cycle (if the billing cycle is greater than monthly) and, in any other circumstances, not more than once per month.
A manual meter reading charge may only be charged for a type 5 or type 6 metering installation which was compliant with this guideline at the date of commissioning or first use of the metering installation.

Where the installed meter type is an advanced technology meter, the applicable metering charge and the charge for energisation, re-energisation or de-energisation must not exceed the published applicable distributor charge for an advanced technology meter. For advanced technology meters, a manually read meter charge is only permitted when a customer requests a physical read of the meter and the read is subsequently performed by physical inspection of the meter.

4.6.4.2 Summary

Our pricing condition permits the network owner or operator to charge:

**Small customers**
- A bundled energy tariff (Group A)
- Actual costs incurred in making metering changes or service capacity upgrades requested by the tenant (Group A or Group B)
- A pro-rata charge levied by a registered distributor no greater than the charge the distributor would have made to the customer had the distributor serviced the customer directly (4.6.2)
- Charges specified in a residential or commercial lease, tenancy agreement or similar instrument but only where such charges are permitted under relevant jurisdictional legislation.

**Large customers**
- A bundled energy tariff (Group A)
- Actual costs incurred in making metering changes or service capacity upgrades requested by the tenant (Group A or Group B)
- A pro-rata charge levied by a registered distributor no greater than the charge the distributor would have made to the customer had the distributor serviced the customer directly (4.6.2)
- Mutually agreed additional charges or value added services under a commercial agreement (Group C).

**Large corporate enterprises**
- Charges agreed commercially between the parties (Group C: charging not restricted).

**Individual Exemptions**
- Other charging mechanisms as approved by the AER (Group D).
4.7 Embedded Network Manager – Appointment and Reversion

4.7.1 Appointment and cost recovery

The NER definition of ENM conditions provides:

\[ \text{ENM conditions} \]

An Exempt Embedded Network Service Provider must:

(a) act as the Embedded Network Manager for the relevant embedded network; or

(b) engage an Embedded Network Manager to provide embedded network management services for the relevant embedded network; and

(c) enter into an agreement with an Embedded Network Manager for the provision of embedded network management services where that person has engaged an Embedded Network Manager under paragraph (b).

Any costs which arise through non–competitive processes or the payment of a bounty are inevitably recovered through additional fees paid by current and future residents and/or tenants. Therefore, we consider the appointment of anyone with a statutory right to recover fees from a captive group of customers may be contrary to the long–term interest of those consumers if no safeguards are provided against improper practices.

The operators of an embedded network may think our safeguards are intrusive on their business model. However, we think it is incumbent upon those operators to demonstrate that their network offers benefits to customers and that any costs incurred can be demonstrated to be the minimum necessary. In any event, under limb (a) of the definition above, the exempt embedded network service provider may seek accreditation and thereby, maintain their control over the metering installation.

Note that under some circumstances the effect of this condition 4.7 is to allow every customer in an embedded network to be served exclusively by the exempt embedded network service provider. This may be an advantage in a group buying situation but it also carries a substantial risk of price exploitation of customers otherwise. This condition may allow a community group to delay the appointment of an ENM until such time as a fellow resident accepts a retail market offer but, under clause 2.5.1(d2) of the NER, you cannot defer the appointment of an ENM indefinitely.

This is because every customer in an embedded network in a jurisdiction which allows access to retail competition has an absolute right of access. It would be a breach of our conditions for exemption if an exempt embedded network service provider were to restrict this right in any way.

Our conditions for the appointment of an ENM are:

(a) Unless the requirements of condition 4.7.1.1 are met, any cost resulting from the accreditation of any person as an ENM or from the appointment or provision of
services by an ENM must be borne by the exempt embedded network service provider. Cost recovery is not permitted from any other person.

(b) An ENM must not pay an advance fee or a rebate to a property owner, developer or exempt embedded network service provider or any other person in connection with the provision of ENM services or to secure a right to provide services to an embedded network regulated by the AER.

(c) Also, an exempt embedded network service provider must not seek an advance fee or a rebate from any other person in connection with the provision of ENM services or to secure a right to provide services to an embedded network regulated by the AER.

4.7.1.1 Cost recovery in an eligible community

Note: This condition applies where an eligible community elects to appoint an ENM for any reason and the cost of ENM services is to be recovered from ENM customers. See condition 4.7.2 if the community wish to not appoint or to revoke an appointment of an ENM.

This condition applies to an embedded network serving eligible community based groups registered in activity classes ND2, NR2, NR3, and NR4. In particular, eligible community based groups include caravan park, manufactured home site and retirement communities and other groups of a similar nature participating in a group purchasing scheme whereby the benefits of bulk purchasing are shared across all members of the community. An eligible community (or a person or body corporate acting on behalf of the community) may act as an exempt embedded network service provider.

If the eligible community is an exempt embedded network service provider, the cost of the ENM services may be recovered from consumers in the embedded network as provided for in this condition 4.7.1.1. An important consideration for the AER in the appointment of an ENM in this situation is to ensure the appointment of the ENM by the exempt embedded network service provider is also in the long–term interests of consumers. To mitigate against the possibility of future customers being locked in to long–term binding contracts that are not in their interests we require that:

(a) the appointment of an ENM is conducted as an arm’s length transaction through a robust competitive process which includes a poll of network customers conducted in accordance with condition 4.7.3; and,

(b) an ENM must not pay an advance fee or a rebate to a property owner, developer or exempt embedded network service provider or any other person in connection with the provision of ENM services or to secure a right to provide services to an embedded network regulated by the AER.

The appointment of an ENM other than the operator of an embedded network must be conducted by a transparent competitive process and with the agreement of a two–thirds majority of customers of the embedded network, each voting once.

A resolution under this condition must include the name of the party making each competing competitive offer and, if the recommended party is not the lowest price offer, a statement of reasons why each offer has been preferred or not preferred, as appropriate.
Where an ENM trigger event has occurred for one or more of the activity classes applicable to an embedded network, the exempt embedded network service provider, if the exempt person is not an accredited ENM, must appoint an accredited ENM within 40 business days of the occurrence of an ENM trigger event.

4.7.2 Non-appointment of an ENM and reversion

This condition only applies to an embedded network serving eligible community based groups registered in activity classes ND2, NR2, NR3, and NR4. In particular, eligible community based groups include caravan park, manufactured home site and retirement communities and other groups of a similar nature participating in a group purchasing scheme whereby the benefits of bulk purchasing are shared across all members of the community. This condition provides a mechanism for eligible communities to not appoint an ENM immediately or, if no community member is served by a market retail offer, to cease to engage an ENM. In this condition, an eligible member is any person who is subject to a requirement to pay a charge for service by the exempt embedded network.

If requested by to do so by the lesser of 10 per cent of eligible members or ten eligible members, an exempt embedded network service provider must, within 30 days, prepare a resolution and conduct a poll of eligible members whether to adopt the resolution. A poll may be sought at any time, however, an exempt embedded network service provider is only required to conduct one poll in any twelve month period.

For eligible communities for which an exempt embedded network service provider offers price-matching in accordance with condition 4.9.4, the exempt embedded network service provider may, if requested by the eligible member, offer to match the prices offered by a relevant market retailer.

If no counter-offer is made or, if the counter offer is not accepted, the exempt embedded network service provider must appoint an ENM when the ENM condition trigger is satisfied.

4.7.3 Poll requirements

Where an eligible community proposes by a resolution of its members to appoint, or not appoint, or to cease to appoint, an ENM the exempt embedded network service provider must:

1. provide a notice at least 14 calendar days prior to a vote to all eligible members of the intention to consider a resolution
2. provide every eligible member with a copy of the notice required under condition 4.8.1, a copy of the proposed resolution and written information supporting or opposing the resolution
3. conduct a poll of eligible members in which eligible residents may vote once (but voting is not compulsory)
4. record and report to the AER separate tallies of the total votes for and against the resolution, the total proxy votes for and against, the total number of eligible voters and the total number of informal votes and excluded votes.
5. report the results of the poll to the AER (electronically is preferred) within a further ten business days, including a copy of all material circulated to members under condition 4.7.3.2 and a detailed description of the benefit sharing mechanism.

If a two-thirds majority of eligible members of the community who vote are in favour of a resolution and the AER is satisfied with the conduct of the poll and that the benefit sharing mechanism is equitable, the AER will determine whether the exempt embedded network service provider may appoint, not appoint, or cease to appoint, an ENM as the case requires. The decision of the AER does not take effect until receipt of a notice from the AER of this decision.

An application under this condition may be treated as a public matter and may be subject to publication as discussed in section 2.4 of this guideline.

4.8 Information provision

An exempt embedded network service provider must provide information to customers on request, maintain a contact point and keep records as set out in this condition 4.8.

4.8.1 Provision of exempt selling information to exempt customers

1. The exempt embedded network service provider must advise an exempt customer, in writing, at the start of their tenancy/electricity sale agreement of the following:
   a. any right of the exempt customer, under state or territory laws, to elect to purchase energy from a retailer of their choice and information on the options for metering that would allow this choice
   b. the exempt customer’s rights in relation to dispute resolution including:
      i. the exempt person’s procedures for handling disputes and complaints
      ii. any right that the exempt customer has to access the energy Ombudsman scheme or any other relevant external dispute resolution body in the state or territory in which the exempt customer is located.
   c. the conditions applicable to the exemption that the exempt embedded network service provider is operating under
   d. unbundled details of the network tariffs and all associated fees and charges that will apply to the exempt customer in relation to the sale of energy
   e. contact numbers in the event of an electricity fault or emergency, including the number for a 24-hour emergency contact line.

2. In addition to the requirement to provide the information at the commencement of the exempt customer’s tenancy/agreement, the information set out in paragraph 1 of this condition must be provided by the exempt embedded network service provider at any time on request by the exempt customer or the AER.
4.8.2 Contact details

1. The exempt embedded network service provider must provide a means of contact for account inquiries and complaints that can be readily accessed by exempt customers. Where a telephone number is provided, the charge for this call must be no more than the cost of a local call.

4.8.3 Maintaining records

1. The exempt embedded network service provider must maintain records of the following for each of its exempt customers:
   a. The name of the exempt customer.
   b. The address of the exempt customer’s premises.
   c. The identifier of the meter for the exempt customer’s premises (if applicable).
   d. The date that the customer account was created.
   e. Copies of any bills issued for the previous 12 months.
   f. The date of the most recent meter read for the customer (if applicable).
   g. The basis for determining any estimates of consumption for the purpose of billing where a meter read could not be obtained.

4.9 Conversion of an existing site (Brownfield conversion)

An existing electricity distribution system may be converted to an embedded network without the consent of every customer but only if the alternative requirements specified in this condition are strictly applied. Condition 4.9 replaces conditions 4.1.12(e) and 4.1.12(f). The balance of condition 4.1.12 continues to apply.

4.9.1 Provision of retrofit information

1. The exempt embedded network service provider must provide notice, by letter, to all tenants at the retrofit location, of the plan to install an embedded network at the site.

2. The exempt embedded network service provider must provide each tenant with the following information regarding the installation of the embedded network:
   a. a written notice which provides the tenant with information concerning:
      i. the tenant’s right to choose their own retailer, even within an embedded network
      ii. the tenant’s ability to enter into an energy only contract with an authorised electricity retailer
      iii. the obligations regarding electricity offer matching, as set out in conditions 4.9.3 and 4.9.4
      iv. the obligations regarding duplication of network fees, as set out in condition 4.9.5.
   b. a copy of the electricity sales agreement to be offered by the exempt person
   c. the contact details of a representative of the exempt embedded network service provider who will address any concerns and queries relating to the planned retrofit.
3. The exempt embedded network service provider must ensure that information regarding the proposed retrofit is clearly, fully and adequately disclosed, and that it has regard to a person’s capacity to provide consent.

**4.9.2 Collecting and recording explicit informed consent**

1. The exempt embedded network service provider must provide the tenant with the information set out in condition 4.9.1, prior to seeking the tenant’s explicit informed consent to the retrofitting of the embedded network.

2. The exempt embedded network service provider must keep records of the consent obtained. These records must:
   a. include copies of the information provided to tenants
   b. include records of consultations and meetings held with tenants
   c. identify and record which tenants have not consented and the reasons for non-consent
   d. record the outcome of any negotiation and/or dispute resolution with tenants
   e. be kept for a period of two years
   f. be provided to the AER on request.

3. The exempt embedded network service provider must engage with prospective customers who do not consent, and seek to mitigate their concerns.

4. The exempt embedded network service provider must obtain the tenant’s consent for the retrofit in a separate document, that is, the document recording the exempt customer’s consent to the retrofit must be separate to a document acknowledging that the exempt customer is selecting the exempt embedded network service provider as its electricity supplier.

**4.9.3 Offer matching for large customers**

This condition applies only if the large customer was a tenant or resident at the time of the creation of the embedded network.

1. If a tenant, who is categorised as a large electricity customer, does not consent to becoming part of the embedded network, the exempt embedded network service provider must:
   a. facilitate, within the embedded network, the continuation of the tenant’s electricity contract with their current retailer, or
   b. facilitate the tenant’s direct connection to a registered distributor, or
   c. if a or b do not apply, fulfil a request made by the tenant that the exempt embedded network service provider match any genuine electricity offer that would be available to the particular tenant if they were still a grid connected customer.

2. The exempt embedded network service provider must fulfil any subsequent request made by a tenant to match an electricity offer if the request is made 12 months or more after a previous request.
3. In the absence of a subsequent request to match an electricity offer, the exempt embedded network service provider need only apply the matched offer for a period of 12 months.

4. The exempt person’s obligation to match an electricity offer expires upon termination or renewal of the large customer’s tenancy/lease.

4.9.4 Offer matching for small customers

This condition applies only if the small customer was a tenant or resident at the time of the creation of the embedded network.

1. If a tenant, who would be categorised as a small electricity customer, does not consent to becoming part of the embedded network, the exempt embedded network service provider must:
   a. facilitate, within the embedded network, the continuation of the tenant’s electricity contract with their current retailer, or
   b. fulfil a request made by the tenant that the exempt embedded network service provider match any genuine electricity offer that would be available to the particular tenant if they were still a grid connected customer.

2. The exempt embedded network service provider must fulfil any subsequent request by a tenant to match an electricity offer if the request is made 12 months or more after a previous request.

3. In the absence of a subsequent request to match an electricity offer, the exempt embedded network service provider need only apply the matched offer for a period of 12 months.

4. The exempt person’s obligation to match an electricity offer expires upon termination or renewal of the small customer’s tenancy/lease.

4.9.5 Duplication of network charges

This condition applies only if the customer was a tenant or resident at the time of the creation of the embedded network.

1. The exempt embedded network service provider must take steps to remedy any duplication of network charges experienced by tenants who have entered into an energy supply contract with an authorised retailer.

2. The exempt embedded network service provider must not charge a connection charge to any tenant who enters into an energy supply contract with an authorised retailer in accordance with condition 4.8.14.9.1.

4.9.6 Metering arrangements

1. The exempt embedded network service provider must bear the costs of any changes to metering and other network alterations that take place in the course of the retrofitting of the embedded network.
2. The exempt embedded network service provider must ensure that metering arrangements within the embedded network allow exempt customers to access retail competition.

4.9.7 Approval by the AER

The applicant must conduct a marketing campaign for at least three months based wholly on this condition 4.9. If the applicant can demonstrate at the conclusion of that period a substantial majority of tenants and residents have agreed to conversion to an embedded network, the applicant may apply to the AER to convert the network.

The application must detail the marketing campaign undertaken and provide the AER with a report summarising the information collected under condition 4.9.2. An application must contain:

a. details of the sign-up percentage attained,

b. the views of customers both accepting and refusing to accept the conversion

c. the steps taken to mitigate these concerns and an undertaking to observe conditions 4.9.1 to 4.9.6.

If the AER is not satisfied with the application in any respect we may, at our discretion, require the applicant to rectify the defect in the application or may publicly consult on the application or both. We may include a requirement that the marketing campaign be modified or extended, the application or any supporting material provided to consumers or the AER be revised or that an undertaking be amended.

If the AER is satisfied with an application we will issue a notice of acceptance, which may specify an effective date. The network must not be converted until the effective date specified in a notice issued by the AER.
5 Part C – Registration, Applications and Revocation

5.1 Pre-registration
You can pre-register for a network exemption by following the processes outlined in this Guideline.

5.2 Registrable exemption information requirements
Registrable exemptions do not require an application to the AER, but cover network activities that must be registered with the AER to receive the benefit of an exemption. Online applications can be lodged directly from our website.

Applicants must submit the following information to record a registrable exemption:

- the name of the party for whom exemption is sought (additional parties can be added)
- details of the company registration (ABN/ACN) (ABN is preferred)
- authorised representative contact details, including physical address, email address, and telephone contact numbers
- whether registering as owner or as the controller/operator of a network
- location of the embedded or exempt network
- nature of the activities conducted which require exemption
- applicable class or classes of exemption
- date activities commenced
- applicable dispute resolution mechanism
- charging group or groups.

Applications to register or amend a registration may be submitted electronically to us at: aerexemptions@aer.gov.au, in accordance with the information requirements set out above. We operate a unified registration process for both the Network Guideline and Exempt Selling Guideline to facilitate applicants seeking an exemption from both sets of requirements.

Parties who believe a registrable exemption is applicable to their current circumstances must, within not more than 20 business days of commencing to own, operate or control a private network, complete the registration requirements. Multiple classes apply to some private networks.

We will acknowledge all registrations with a reply email and provide details of a contact person within the AER who will respond to any inquiries regarding the registration. If any of the information provided to us for the purposes of registration changes during or after registration, we should be notified within 20 business days of the change to ensure that the registered exemption remains valid.
The registered exemption applies to the owner and the operator (as appropriate) for a particular site from the time they are entered on the Register of Exempt Networks.

Should an affected party seek to vary any conditions associated with a registrable exemption, they no longer meet the requirements for a registrable exemption and would need to apply for an individual exemption.

5.3 Application for individual exemption or variation of conditions

Individual exemptions are granted by application to the AER on a case–by–case basis for network activities that do not meet the criteria for a deemed or registrable exemption.

Applicants must submit the following information to apply for an individual exemption:

- the name of every party for whom exemption is sought
- the nature of the normal business activities of the applicant
- if the application is made by an authorised agent, proof of authority for the agent to act on behalf of each named applicant
- the precise network to be subject to the exemption, including circuit diagrams if necessary (in most circumstances less complex single–line diagrams will be sufficient)
- a description of the parties connected to, or likely to connect to, or otherwise obtain services from the network
- if an industrial or commercial situation, whether the proposed on–supply is subject to agreed commercial terms between consenting parties with appropriate recourse to professional advice
- whether the applicants is seeking (or has received) exemptions from any other codes or regulations governing the ownership or operation of networks or metering requirements applicable within the relevant jurisdiction, including details of those exemptions or applications for exemptions
- whether they are seeking exemption from the requirement to register as an NSP or from the application of chapter 5 of the NER or if they are seeking to vary the conditions otherwise applicable to a defined exemption class (if so, which conditions and why a variation is justified)
- details of the registered NSP to whom the network is, or will be, connected
- details of any preliminary discussions which have taken place between the applicant and the network service provider and if relevant, AEMO.
- the arrangements proposed for setting network charges for parties using the network
- mailing details for all stakeholders affected by the grant of an individual exemption
- the arrangements proposed for energy charges (e.g. fixed percentage of total costs or direct access to retailers by tenants), and
- detailed supporting argument why exemption will serve the long–term interests of electricity consumers connected to the network and more generally, across the NEM.
An application for an individual exemption must be made in writing and may be submitted electronically to us at aerexemptions@aer.gov.au.

We will acknowledge all individual exemption applications with a reply email and provide details of a contact person within the AER who will respond to any inquiries regarding the application. If any of the information provided to us for changes during or after the individual exemption application is made, we should be promptly notified of the change.

Applications for variation of conditions must explain in persuasive terms why the pre-defined conditions will result in an excessive regulatory burden and demonstrate how relief from the conditions will better serve customers. We may request additional information from applicants prior to processing an application for exemption.

We are empowered to consult affected stakeholders on any application for exemption. As stated in section 2.4.5 we may seek written submissions on the application from interested stakeholders via a notice on our website. Applications may contain confidential information. If so, a redacted version of each submission is required in a form suitable for publication electronically should the AER elect to consult widely on a particular application.

We will inform the applicant of our decision regarding the application for the grant or variation of the individual exemption. The individual exemption applies to an operator for a particular site from the time stated in a notice issued by the AER and entered on the Register of Exempt Networks.

An individual exemption is personal to the applicant, and does not apply to any other person that owns, controls or operates the network at the time of the decision or in the future. An individual exemption is not transferrable; however, we accept the need for transitional arrangements.

Where an application for individual exemption is for a network previously registered with us and we have not revoked that registration, the terms of the pre-existing arrangement will continue to apply to the new applicant until the effective date of a new exemption notified by us in response to the application.

### 5.4 Revocation of an exemption

We can revoke any network exemption granted including an exemption for a network operating under a deemed exemption or a registered exemption. The grounds for revocation are that we are satisfied that there has been a failure by the exempt party to meet the conditions imposed on them. We will consider what constitutes a ‘failure’ on a case by case basis as matters come to our attention. In general, we will conclude there to have been a failure by an exempt party where there is:

- an unacceptable impact on a connected network or
- an unacceptable impact on national electricity market operations as a result of the operation of the network or
- the exempt party has not complied with conditions imposed on them as part of their exemption and as a result, there has been a significant or widespread impact on one or more of their customers.
Subject always to there being no immediate threat to the health or safety of any party served by an exempt network and there being no adverse impact on a connected network or on market operations, we will align the process for revocation of a network exemption to the equivalent process imposed in Section 120 of the Retail Law for retail matters. This process includes the following steps:

- We will first give the exempt network proprietor a notice that it intends to revoke the exemption, and the reasons why the AER considers that grounds for revocation exist.
- The exempt network proprietor must respond to the notice in writing during the time specified by the AER, showing why the exemption should not be revoked and proposing actions the exempt network proprietor will take to rectify the problem.

If we are not satisfied with the exempt party’s response, we may fix a time for the revocation to take effect and inform the exempt party of any conditions with which they must comply. Where an exemption for an exempt party operating under a class exemption is revoked, the exempt party is no longer eligible to operate under that class. If they continue to operate the network, they will be in breach of section 11(2)(b) of the National Electricity Law, which prohibits the operation of a network without registration or exemption or an approved derogation.

Following revocation of the network exemption, customers of the exempt network will either need to obtain supply from a NEM registered distribution or transmission network service provider or must otherwise satisfy the conditions necessary to qualify for a new deemed, registrable or individual exemption.

In situations where revocation may place undue hardship on customers of an embedded network, to the extent practicable, we will seek to minimise hardship on innocent parties while enforcement action is taken. This may involve the grant of a limited individual exemption to operate the network under restricted conditions. This will be assessed on a case–by–case basis.

### 5.5 Transfer, amendment or cessation of an exemption

A notice addressed to the AER is required for all changes of ownership, accountabilities and/or registration details and for the cessation of operation of a registrable or individually exempt private network. No notice is required for a deemed exempt network.

The notice must detail the change of circumstances and should be submitted at the earliest opportunity whenever an exempt private network is to be subject to a transfer of ownership, change of registration details or a change or restructure of accountabilities. If a notice is incomplete or missing necessary detail, we may require further detail be provided before the notice is accepted and acted upon.

Note that the party acquiring an existing exempt private network is required to submit a registration application in accordance with sections 0 or 5.3 or 5.3, as appropriate. The conditions for the operation of an existing exempt network continue to apply until we determine otherwise in response to the new application.
Where a registered private network is to cease operation, the authorised representative(s) should notify us of the planned or actual date for the network to cease operation. We will deactivate the registration of the network from the date specified in a notice.

If the AER receives advice from any other party that a registered network has ceased operation we will attempt to contact the registered responsible person to confirm the status of the network. This contact may be by telephone or by a written or electronic notice addressed to the registered authorised representative. If no response is received within 20 business days we may deactivate the registration of that network without further notice.

If the AER later determines that a deactivated registered private network should be reactivated we may, at our discretion, reactivate the network on the same or amended conditions or we may require that a new application for a registrable or individual exemption be submitted.