

**Australian Energy Market Commission**

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## **RULE DETERMINATION**

### **National Electricity Amendment (Embedded Networks) Rule 2015**

**Rule Proponent**

Australian Energy Market Operator

17 December 2015

**RULE  
CHANGE**

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AEMC 2015, Embedded Networks, Rule Determination, 17 December 2015

## **About the AEMC**

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

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## Summary

The Australian Energy Market Commission (AEMC or Commission) has made a final rule to clarify the regulatory arrangements for embedded networks and reduce the barriers to embedded network customers accessing retail market offers. Embedded networks are private networks which serve multiple premises and are located within, and connected to, a distribution or transmission system in the National Electricity Market through a parent connection point. Common examples of embedded networks include shopping centres, retirement villages, caravan parks, apartment blocks and office buildings.

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 retail electricity services that suit them best. This relates directly to the AEMC's strategic priority of empowering consumers to participate in all parts of the energy supply chain where they desire to do so.

The AEMC has made this final rule determination in response to a rule change request proposed by the Australian Energy Market Operator (AEMO). The rule change request stemmed from recommendations in the AEMC's Energy Market Arrangements for Electric and Natural Gas Vehicles and Power of Choice reviews.<sup>1</sup> The interaction between this rule change process and other Power of Choice projects is explained in Chapter 8 of this final rule determination.

*What is the problem with the current regulatory arrangements?*

Table 1 compares the regulatory arrangements of off-market embedded network customers, on-market embedded network customers and customers outside of embedded networks. It highlights that the current arrangements do not make any one party responsible for market interface services for on-market embedded network customers. These are the services that link customers to the National Electricity Market systems that allow them to purchase electricity from retailers. These services include providing National Metering Identifiers to customers, maintaining National Metering Identifier standing data (for example, a customer's address) within AEMO's market solutions and transfer solutions system and facilitating transfers between retailers. Without a party being responsible for performing market interface services, embedded network customers which are off-market and are seeking to become on-market, or are on-market and seeking to change retailer face uncertainty and barriers to undertaking such actions.

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<sup>1</sup> AEMC, Final Advice, Energy Market Arrangements for Electric and Natural Gas Vehicles, December 2012 and AEMC, Final Report, Power of Choice Review - Giving Consumers Options in the way they use Electricity, November 2012.

**Table 1 Legal instruments and service providers of electricity services**

Service	Off-market embedded network customers		On-market embedded network customers		Customers outside of embedded networks	
	Who provides the service?	Under what instrument?	Who provides the service?	Under what instrument?	Who provides the service?	Under what instrument?
Network	Embedded network operator	AER network exemption guideline	Embedded network operator	AER network exemption guideline	DNSP	NER
Metering	Embedded network operator	AER network exemption guideline	Accredited providers	NER and NERR	Accredited providers	NER and NERR
Market interface	Not required	Not required	No party is responsible	No instrument allocates responsibility	DNSPs	NER and AEMO procedures
Retail (sale of electricity)	Embedded network operator	AER exempt selling (retail) guideline	Retailers	NERR	Retailers	NERR

*How does the final rule address the problem?*

The final rule introduces a new accredited provider role into the National Electricity Rules – the embedded network manager – to be responsible for performing market interface services for embedded network customers.

The changes implemented by the final rule will establish the new role. The detailed functions, procedures, governance arrangements and criteria for when an embedded network manager must be appointed will then be set out in AEMO procedures and the Australian Energy Regulator's (AER) network exemption guideline. In particular:

- the AER's network exemption guideline will specify which embedded network operators will be required to appoint an embedded network manager;
- AEMO's procedures will specify the exact functions and instructions for performing the functions in the National Electricity Market systems; and
- AEMO will create accreditation procedures for embedded network managers to ensure embedded network managers are capable of performing the functions.

### *Implementation schedule*

The final rule also sets out a timeline for implementing the proposed changes. This is displayed in Table 2.

**Table 2**            **Embedded networks implementation schedule**

<b>Date</b>	<b>Action</b>
17 December 2015	AEMC published final determination and rule
1 September 2016	AEMO to finalise systems and procedures changes
1 December 2016	AER to finalise ring fencing and network exemption guidelines <sup>2</sup>
1 March 2017	AEMO to finalise embedded network manager services level (and accreditation) procedures
1 December 2017	Embedded network framework commences, requiring relevant embedded network operators to appoint an embedded network manager

The Commission has designed this implementation schedule after liaison with the AER, AEMO and industry to minimise implementation costs by coordinating the changes with changes to the National Electricity Rules, AEMO systems and procedures, and the AER's guidelines occurring as a result of the Expanding Competition in Metering and Related Services final rule.

### *Benefits of the final rule*

The final rule is expected to:

- Promote competition in the retail market for electricity services for customers within embedded networks by decreasing the barriers to embedded network customers accessing retail market offers. Retail competition in these markets is likely to lead to lower prices and a greater range of products and services for embedded network customers in the long run.
- Provide a clear, understandable and transparent regulatory framework for embedded networks. The final rule removes the ambiguity in the current regulatory arrangements by identifying and assigning the market interface functions for embedded network customers to embedded network managers. This is likely to promote confidence in the regulatory framework which should

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<sup>2</sup> The AER is required to update its ring fencing guideline by 1 December 2016 under the Expanding Competition in Metering and Related Services final rule. This requirement is therefore not included in the embedded networks final rule but the AER will consider ring fencing arrangements for embedded network managers as part of the update.

encourage authorised retailers to participate in the supply of retail services to customers within embedded networks.

- Minimise compliance costs and administrative burden for stakeholders by:
  - providing an open market for the provision of embedded network management services by allowing any party which meets AEMO's accreditation requirements to provide embedded network management services. This is likely to provide embedded network operators with a wide choice of suppliers of embedded network management services, including the option of performing the functions themselves;
  - aligning implementation obligations with those made in the AEMC's Expanding Competition in Metering and Related Services final rule to allow for the changes to systems, procedures and accreditation processes to be streamlined. Alignment of the implementation timeframes for any rules arising from either the Meter Replacement Processes or the Updating the Electricity B2B Framework rule change processes is also expected to assist in managing administrative burden;<sup>3</sup>and
  - allowing the AER to determine which embedded network operators are required to appoint an embedded network manager taking into account the costs and benefits of doing so.

#### *Differences between the final rule, the draft rule and the rule change request*

The final rule is a more preferable rule. It adopts the majority of the proposed rule, including the creation of the embedded network manager role to perform the market interface services that link embedded network customers to the National Electricity Market systems. The key difference between the proposed rule and the final rule is that the final rule includes a more flexible approach to deciding when an embedded network manager must be appointed by an embedded network operator.

The final rule is consistent with the draft rule in policy intent and effect. However, the final rule is different to the draft rule. This is because the final rule amends the National Electricity Rules as they were amended by the Expanding Competition in Metering and Related Services final rule on 26 November 2015. A marked-up version showing changes to the version of Chapter 7 as made by the Expanding Competition in Metering and Related Services final rule is available to stakeholders on request.

The final rule also includes minor changes from the draft rule to clarify the definition of an embedded network and what constitutes an embedded network customer exercising its right to a choice of retailer.

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<sup>3</sup> The Updating the Electricity B2B Framework rule change process stems from rule change requests from the COAG Energy Council and Red Energy and Lumo Energy. These rule change requests were submitted following the publication of the AEMC's Implementation Advice on the Shared Market Protocol. A consultation paper initiating the rule change process was published on 17 December 2015.

### *Recommended changes*

The regulatory framework for embedded networks includes the National Electricity Rules, the National Energy Retail Rules, the AER's network and retail exemption guidelines, AEMO's systems and procedures, and jurisdictional legal instruments.

In addition to the changes to the National Electricity Rules in the final rule, the final rule determination includes a number of recommendations for changes to these other instruments. The Commission does not have the power to make these changes itself, and if the changes are not made the final rule will still result in the benefits described above. Nevertheless, the benefits from the final rule will be enhanced if these recommendations are made and a total embedded network reform package is implemented. Specifically, the Commission recommends:

- changes to jurisdictional regulations in Queensland, Tasmania and the Australian Capital Territory to remove the barriers to embedded network customers accessing retail market offers;
- changes to jurisdictional regulations in South Australia, Victoria and New South Wales to align the jurisdictional regulations that allow embedded network customers access to retail market offers; and
- changes to the AER's network exemption guideline to reduce the barriers to customers accessing retail market offers by aligning meter reading, testing and inspection standards within and outside embedded networks and allowing embedded network customers to compare offers from embedded network operators to authorised retailers.

### *Review of the National Energy Retail Rules*

The draft rule determination set out a number of issues regarding embedded networks in relation to the National Energy Retail Rules that may potentially benefit from amendment. These issues arise because the National Energy Retail Law and Rules are designed on the basis of the tripartite relationship that typically exists between a customer, its retailer and its local network service provider. This relationship does not exist for embedded network customers because there is no local network service provider. Instead there is an embedded network operator.

The Commission therefore recommends that the COAG Energy Council request the Commission to undertake a review of the National Energy Retail Law and Rules to identify and assess the issues regarding the regulatory arrangements for embedded network customers.

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# **1 AEMO's rule change request**

## **1.1 The rule change request**

On 2 October 2014, AEMO submitted a rule change request to the AEMC proposing amendments to the regulation of embedded networks within the National Electricity Market (NEM).

AEMO sought to clarify the metering and other arrangements that apply to embedded networks and reduce the barriers to embedded network customers accessing retail market offers. AEMO anticipated that this would promote competition by allowing embedded network customers to choose whether to be supplied electricity and related services by the provider of the embedded network or by an authorised retailer participating in the NEM.

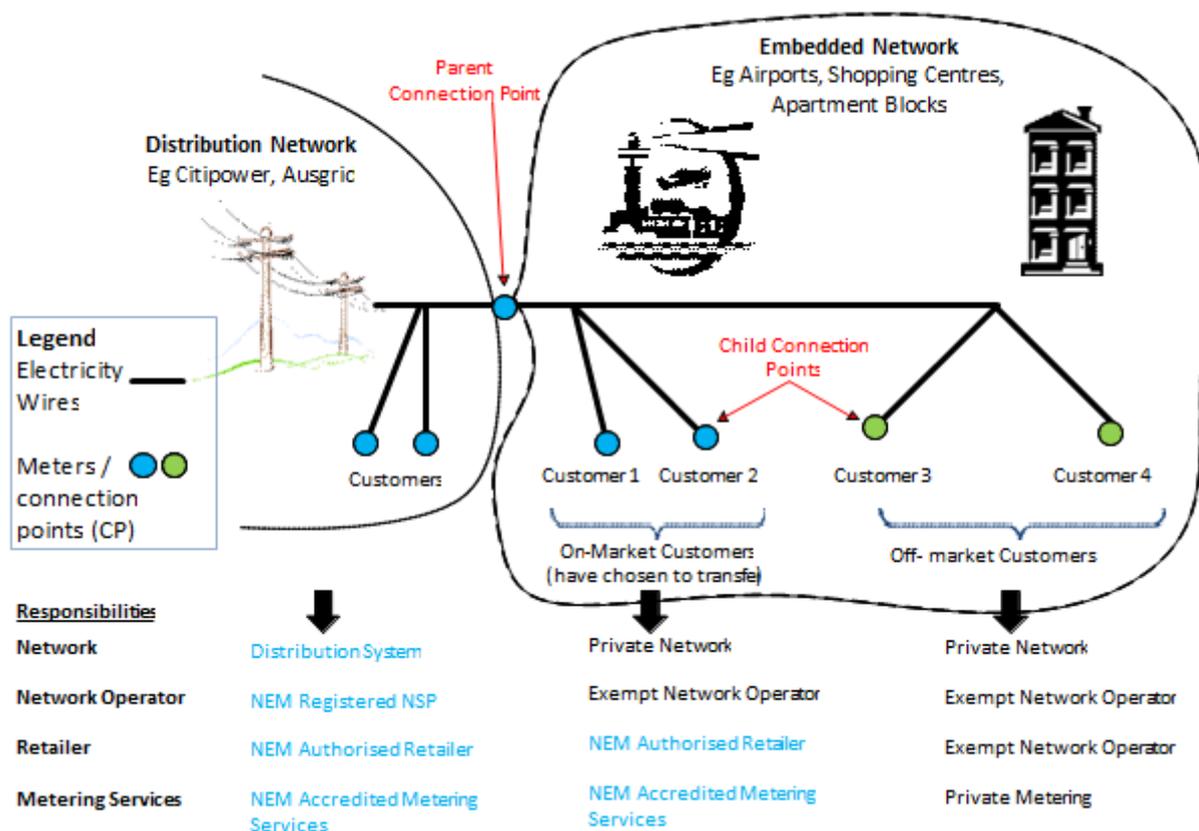
## **1.2 Current arrangements**

### **1.2.1 Current operation of embedded networks**

Embedded networks are private networks which serve multiple premises and are located within, and connected to, a distribution or transmission system in the NEM through a parent connection point. Common examples of embedded networks include shopping centres, retirement villages, caravan parks, apartment blocks and office buildings.

Figure 1.1 shows an embedded network within a distribution network and contrasts the responsibilities of various parties to customers within and outside of embedded networks.

**Figure 1.1 Embedded network operations in a distribution network**



Source: AEMO rule change request, September 2014, p.14.

The standard arrangements for customers in the NEM are displayed on the left of Figure 1.1. The NEM registered local network service provider (LNSP) owns and operates the distribution network which connects directly to the customers' premises. Customers choose between retail market offers from NEM authorised retailers. Metering services, including installation, maintenance and meter reading are provided by accredited providers, as arranged by the responsible person – the retailer or LNSP – relevant to the specific connection point.<sup>4</sup>

The network arrangements and the responsibilities of market participants within embedded networks are different to this standard arrangement. While the LNSP is responsible for electricity supply to the parent connection point (as it is on the LNSP's network), it is not responsible for supply to customers within the embedded network. Instead, any assets beyond the parent connection point are owned and operated by the embedded network owner and embedded network operator respectively. These parties are not NEM registered network service providers (NSPs), are not subject to economic regulation by the AER and may be the same person.

<sup>4</sup> From 1 December 2017 when the metering aspects of the Expanding Competition in Metering and Related Services (Competition in Metering) final rule commence metering services will be arranged by the metering coordinator, not the responsible person.

There are two possible arrangements for the provision of retail and metering services to customers within embedded networks. One arrangement, displayed on the far right of Figure 1.1, is that retail and metering services are provided by the embedded network operator, who is not an authorised retailer or accredited provider. This type of arrangement is known as "off-market" activity because the customers are not visible in the NEM systems or to AEMO or NEM participants. From discussion with stakeholders the Commission understands this is currently the arrangement for the majority of embedded network customers.

In the second arrangement, as displayed in the middle of Figure 1.1, customers have chosen an authorised retailer instead of the embedded network operator as their retailer. The authorised retailer provides retail services and metering services are arranged by the responsible person.<sup>5</sup> Customers are still provided with network services by the embedded network operator. This type of arrangement is called "on-market" activity because the customers are included in the NEM market systems and are visible to AEMO and NEM participants.

Where an off-market customer within an embedded network elects to become on-market, the customer must still pay the embedded network operator for the provision of network services. Typically this will occur by the customer paying the embedded network operator directly, but in some cases the retailer and the embedded network operator will co-ordinate to allow the customer to pay a single invoice to the retailer for network and energy services. The retailer then passes on the network component to the embedded network operator.

Network charges to embedded network customers consist of embedded network operators passing on charges from LNSPs for the provision of network services to the parent connection point. Embedded network operators are not permitted to charge for provision of the embedded network through electricity charges.<sup>6</sup> To charge for the embedded network the embedded network operator would require a formal determination by the AER under Chapter 6 of the National Electricity Rules (NER).<sup>7</sup>

## 1.2.2 NER and NERR arrangements

There is currently no specific reference in the National Electricity Law (NEL), NER, National Energy Retail Law (NERL) or National Energy Retail Rules (NERR) to embedded networks. Instead, to be able to provide network and/or retail services embedded network operators must gain (or be eligible for) exemption from registration as a NSP and/or authorisation as a retailer from the AER. Embedded network operators must then comply with the terms and conditions of these

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<sup>5</sup> Similar to the arrangements on the left of Figure 1.1, from 1 December 2017 when the metering aspects of the Competition in Metering final rule commences, metering services for on-market embedded network customers will be arranged by the metering coordinator.

<sup>6</sup> Depending on contractual arrangements and jurisdictional instruments, embedded network operators may be able to recover the costs of running the embedded network through non-electricity charges (for example, rent).

<sup>7</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.36.

exemptions under the AER's *Electricity Network Service Provider Registration Exemption Guideline* (the network exemption guideline) and *(Retail) Exempt Selling Guideline* (the retail exemption guideline).<sup>8</sup>

### 1.2.3 The exemption framework

The AER has discretion over the kinds of network service provider and retail exemptions that it can grant. It also has discretion regarding the conditions that apply to each kind of exemption. The current exemption guidelines are extensive. They outline the various classes and kinds of exemptions available, general requirements for a large number of possible conditions to an exemption and cover a very broad range of types of embedded networks.

The AER has categorised both network and retail exemptions into three classes: deemed, registrable and individual. Within these classes there are many kinds of exemptions for different types of embedded networks. Each kind of exemption is subject to particular conditions. Appendix D sets out the kinds of network and retail exemptions and the conditions that apply to each. Of most relevance to this rule change request are the conditions relating to accessing retail market offers, metering standards and network and retail pricing. Specifically, these conditions include:

- Access to retail market offers: embedded network operators must not impede a customer's access to retail market offers if they are available in the relevant jurisdiction. The network guideline sets out that this condition means that an embedded network operator must actively facilitate access to competitive retail market offers (where allowed).<sup>9</sup> For example, an embedded network operator, when requested by a customer must provide details of the parent metering configuration without undue delay.
- Metering requirements: embedded network operators are required to meet the same metering accuracy standards as those of authorised retailers for customers outside of embedded networks. However, the guidelines do not require the same reading, testing and inspection standards.<sup>10</sup>
- Retail pricing: embedded network operators may not charge small commercial or residential customers more than the standing offer price of the relevant local retailer for retail services.<sup>11</sup>
- Network pricing: the network element of embedded network operators' charges may only relate to passing through the parent LNSP's network charges from the parent connection point. That is, embedded network operators are not allowed to

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<sup>8</sup> For embedded networks which require an individual exemption, the terms and conditions are set out in the individual exemption specific to the embedded network operator instead of the network and retail exemption guidelines.

<sup>9</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.25.

<sup>10</sup> *ibid*, p.46.

<sup>11</sup> AER, *(Retail) Exempt Selling Guideline - version 3*, April 2015, p.43.

charge for provision of the embedded network through electricity charges.<sup>12</sup> The AER recommends that embedded network operators pass through the parent LNSP's network charges through 'shadow pricing'. Shadow pricing involves the embedded network operator charging the customer the same prices that the parent LNSP charges customers of a similar type. Alternatively, the AER allows embedded network operators to apportion the parent LNSP's network charges on a 'causer pays' basis. Importantly, whichever method is adopted, the AER does not allow sustained over-recovery of network charges.<sup>13</sup>

#### **1.2.4 Jurisdictional arrangements**

Victoria, New South Wales (NSW) and South Australia (SA) currently have regulatory frameworks which allow for embedded network customers to access to retail market offers. In Queensland, Tasmania and the Australian Capital Territory (ACT) embedded network customers need a direct connection to the local distribution network if they want access to retail market offers. This may require significant changes to the wiring within the embedded network, the costs of which would be borne by the customer. Appendix E sets out the legislative instruments and policy decisions in each jurisdiction that influence embedded network customer access to retail market offers.

### **1.3 Rationale for rule change request**

AEMO has identified three sets of issues with the current regulation of embedded networks that pose a barrier to customers accessing retail market offers.

1. The NER does not make it clear who has the obligation to support NEM activities for customers within embedded networks that are on-market or are off-market and are seeking to become on-market. This includes:
  - (a) Who assigns embedded network customers a national metering identifier (NMI) when they seek to go on-market?
  - (b) Who has the obligation to set up and maintain the market settlement and transfer solutions (MSATS) standing data for an embedded network?
  - (c) Who performs the NEM processes for the transfer of embedded network customers between retailers, particularly between the embedded network operator and an authorised retailer?
  - (d) Who has access to embedded network customers' metering data?

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<sup>12</sup> As noted above, only registered network service providers charge for network service provision in the NEM and this must be through a formal determination by the AER under Chapter 6 of the NER. However, subject to contractual arrangements and jurisdictional legislation, embedded network operators may be able to recover the costs of running the embedded network through non-electricity charges (for example, rent).

<sup>13</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.53.

2. The terms and conditions of the AER's exemption guidelines do not fully facilitate customers accessing retail market offers because:
  - (a) The bills that embedded network operators provide off-market customers are not required to be separated into network and retail components, making it difficult for off-market customers to compare offers from retailers, which only include energy services, to offers from embedded network operators, which can include network and energy services; and
  - (b) The meter inspection, reading and testing standards for off-market embedded network customers are lower than for on-market customers, making it more likely off-market customers will need to purchase a new meter to go on-market.
3. Jurisdictional regulations create barriers to embedded network customers accessing retail market offers. Notably:
  - (a) Queensland, Tasmania and the ACT do not have regulatory arrangements that facilitate the parent-child metering arrangements that are necessary for embedded network customers to access retail market offers; and
  - (b) The regulatory arrangements which allow access to retail market offers in NSW, SA and Victoria are inconsistent.

#### **1.4 Solution proposed in the rule change request**

To aid embedded network customers in accessing retail market offers AEMO proposed to create a new category of accredited provider – an embedded network manager – to manage embedded network customers in the NEM.

Under the proposed rule the AER would only be permitted to grant an embedded network operator a registrable or individual exemption from the requirement to be registered as a NSP if an embedded network manager has been appointed for the embedded network.<sup>14</sup>

AEMO expects that the embedded network manager would facilitate the transfer of customers between the embedded network operator and authorised retailers. This includes carrying out the functions within MSATS and the Business to Business (B2B) procedures that are performed by registered NSPs, authorised retailers and accredited providers for customers outside of embedded networks.<sup>15</sup>

AEMO also recommended that the AER amend its network exemption guideline to require unbundling of embedded network customers' bills and increase the meter reading, testing and inspection standards for embedded networks to the same as those in place for the rest of the NEM. AEMO considered these requirements will make it

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<sup>14</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.4.

<sup>15</sup> *ibid.*

easier for embedded network customers to compare offers from retailers and embedded network operators and reduce the likelihood of embedded network customers needing to purchase a new meter if they choose to go on-market.<sup>16</sup>

AEMO considered that if implemented, the proposed rule would provide clarity regarding the roles and responsibilities of managing embedded networks as well as a framework to facilitate embedded network customers accessing retail market offers.<sup>17</sup>

AEMO expected this would then allow relaxation of the jurisdictional regulations which currently prevent customers from choosing who should supply their electricity. AEMO also anticipates a harmonisation of the regulations in jurisdictions which already permit retailer choice. Such jurisdictional changes are expected to increase the benefits arising from making the proposed rule. However, any such changes to jurisdictional regulations would need to be made by jurisdictions and are not within the scope of this rule change process.<sup>18</sup>

## **1.5 Context to the rule change request**

### **1.5.1 Background**

The AEMC's final advice on Energy Market Arrangements for Electric and Natural Gas Vehicles made a number of recommendations relating to arrangements that would support multiple trading relationships (MTR) at a single site, and arrangements for embedded networks in the NEM.<sup>19</sup> These recommendations were further noted in the AEMC's Power of Choice final report which set out a substantial reform package for the NEM.<sup>20</sup> The package was intended to provide households, businesses and industry with more opportunities to make informed choices about the way they use electricity and manage their expenditure on electricity.

In regard to embedded networks, the reports recommended changes to clarify the relevant metering and other arrangements, and reduce the barriers to embedded network customers accessing retail market offers.

On 31 July 2013, the Standing Council on Energy and Resources (now the COAG Energy Council) requested AEMO lead the implementation of the MTR and embedded network policy initiatives. Consequently, AEMO, with the support of a stakeholder reference group, developed a high level market design, a detailed market design and a

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16 *ibid.*

17 *ibid.*

18 *ibid.*

19 AEMC, Final Advice, Energy Market Arrangements for Electric and Natural Gas Vehicles, December 2012, p.38.

20 AEMC, Final Report, Power of Choice Review - Giving consumers options in the way they use electricity, November 2012.

proposed rule for the implementation of these initiatives.<sup>21</sup> During the design development process, AEMO separated the MTR and embedded network initiatives and submitted them as separate rule changes to the AEMC on 1 October 2014 and 17 December 2014 respectively.

### **1.5.2 Related rule changes**

On 26 November 2015 the Commission made a final rule determination for the Competition in Metering rule change request. The final rule determination sets out significant changes to the NER and NERR in relation to the provision of metering services to facilitate a market-led approach to the deployment of advanced meters.<sup>22</sup>

The Competition in Metering final rule provides for the role and responsibilities of the existing responsible person to be performed by a new type of registered participant – a metering coordinator. Under the final rule any person can become a metering coordinator subject to satisfying certain AEMO registration requirements. Retailers are required to appoint a metering coordinator for their retail customers, except where a large customer, exempt generator or non-market generator has appointed its own metering coordinator. The final rule also changes the minimum requirements for new and replacement meters for small customers.

There are close linkages between the Competition in Metering final rule and this rule change process in terms of policy development, implementation and the final rule. These linkages are discussed in Chapters 3-8 and Appendix C.

## **1.6 Commencement of the rule making process**

On 21 May 2015, the Commission published a notice advising of its commencement of the rule making process and the first round of consultation in respect of the rule change request.<sup>23</sup> A consultation paper identifying specific issues and questions for consultation was also published. Submissions closed on 2 July 2015.

The Commission received twenty nine submissions to the consultation paper. They are available from the AEMC website.<sup>24</sup> A summary of the issues raised in submissions but not otherwise discussed in this final rule determination is contained in Appendix A.

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<sup>21</sup> The rule change request for the embedded networks initiative includes a proposed rule. The rule change request for the multiple trading relationships initiative does not.

<sup>22</sup> AEMC, Rule Determination National Electricity Amendment (Competition in Metering) Rule 2015, 26 November 2015, p.9.

<sup>23</sup> This notice was published under s. 95 of the NEL.

<sup>24</sup> [www.aemc.gov.au](http://www.aemc.gov.au).

## **1.7 Publication of the draft rule determination and draft rule**

On 10 September 2015 the Commission published a notice under s. 99 of the NEL, advising it made a draft rule determination and draft rule in relation to the rule change request. Submissions on the draft rule determination closed on 22 October 2015.

The Commission received twenty one submissions to the draft rule determination. They are available from the AEMC website.<sup>25</sup> A summary of the issues raised in submissions but not otherwise discussed in this final rule determination is contained in Appendix A.

## **1.8 Extensions of time**

On 10 September 2015 the Commission published a notice under s. 107 of the NEL advising it had extended the publication date of the final rule determination by two weeks to allow the Commission time to work through changes to the NER made in the Competition in Metering final rule on 26 November 2015 into this final rule determination and rule.

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<sup>25</sup> [www.aemc.gov.au](http://www.aemc.gov.au).

## 2 Final rule determination

The Commission has determined to make a more preferable rule. The final rule creates a new accredited provider role, the embedded network manager, to assist embedded network customers to access retail market offers.<sup>26</sup>

This chapter outlines:

- the rule making test for changes to the NER;
- the assessment framework for considering the rule change request; and
- the consideration of the final rule against the national electricity objective.

Further information on the legal requirements for making this final rule determination is set out in Appendix B.

### 2.1 Rule making test

Under the NEL the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the NEO. This is the decision making framework that the Commission must apply.

The NEO is:

“to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.”

The relevant aspects of the NEO are the promotion of efficient investment in, and operation of retail and distribution electricity services for the long term interests of consumers with respect to price and quality.

### 2.2 Assessment framework

In assessing the rule change request against the NEO the Commission has considered the following assessment criteria:

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<sup>26</sup> Under s. 91A of the NEL the Commission may make a rule that is different (including materially different) from a market initiated proposed rule if it is satisfied that, having regard to the issues or issues that were raised by the market initiated proposed rule, the more preferable rule will or is likely to better contribute to the national electricity objective (NEO) and the national energy retail objective (NERO), respectively.

- Facilitating competition.

Competition can be a key driver of productivity and efficiency in markets, driving lower prices and a greater range of choices for consumers in the long run. The Commission has assessed the degree to which the framework proposed by the rule change request will promote competition in the retail market for electricity services for customers within embedded networks.

The Commission has also assessed the potential benefits from a competitive market for the provision of embedded network management services.

- Clarity, transparency and predictability.

The legal framework for the management of embedded networks, including the governing roles, responsibilities and accountabilities should be clear, understandable and result in predictable outcomes for all participants. This should promote confidence in the regulatory framework and encourage authorised retailers to participate in the supply of retail electricity services to customers within embedded networks (where allowed).

Similarly, confidence in the regulatory framework should encourage all potential providers, including DNSPs, retailers, embedded network operators and other parties to participate, and invest in providing embedded network management services.

All parties, especially consumers, should have access to sufficient information to make informed decisions. For example, for consumers within embedded networks to choose between authorised retailers and embedded network operators as their retailer they need to be able to compare the price of electricity services from each. This requires network charges to be transparent from electricity charges for embedded network consumers. Transparency is integral to consumers within embedded networks being able to make efficient decisions.

- Proportionality and regulatory burden.

Changes to the NER should not create unnecessary compliance and administrative burdens for stakeholders. A rule that is complex to administer, difficult for stakeholders to understand or results in unnecessary compliance requirements is less likely to achieve its intended purpose or will do so at a higher cost. The Commission has considered whether the administrative and compliance burden created by the proposed rule is likely to be proportionate to the benefits it is seeking to achieve. This included reductions in administrative and compliance costs as a result of the introduction of NEM-wide consistent regulations arising from the rule change request.

## **2.3 Summary of reasons**

The final rule is attached to and published with this final rule determination. The key features of the final rule are:

- introduction of an embedded network definition into the NER to define embedded networks as private networks which serve multiple premises and are located within, and connected to, a distribution or transmission system in the NEM through a parent connection point.
- creation of a new accredited provider role – the embedded network manager – to perform the market interface functions for embedded network customers to facilitate embedded network customer access to retail market offers;
- in exempting an embedded network operator under the network exemption guideline, the NER specifies that the AER must require an embedded network operator to appoint an embedded network manager unless:
  - all of the embedded network customers will not be able to gain access to a retail market offer even if an embedded network manager is appointed; or
  - the AER considers that the costs of appointing an embedded network manager are likely to outweigh the benefits.
- where the AER has determined that an embedded network operator is not initially required to appoint an embedded network manager, the embedded network operator will be required to do so if a customer within the network exercises its right to access a retail market offer by forming a retail contract;<sup>27</sup> and
- an implementation schedule that allows AEMO, distribution network service providers (DNSPs) and retailers to implement systems and procedures changes from this final rule simultaneously with the changes resulting from the Competition in Metering final rule. Any implementation timeframes for changes arising from the Meter Replacement Processes or the Updating the Electricity B2B Framework rule change processes may also align with these implementation schedules.<sup>28</sup>

The final rule is a more preferable final rule. It is consistent with the key features of the proposed rule but guides the AER's discretion over when embedded network operators are required to appoint an embedded network manager instead of requiring all embedded network operators with registrable or individual exemptions to appoint an embedded network manager. This change provides more flexibility to the AER to examine whether the benefits of an embedded network manager being appointed for each individual kind of exemption outweigh the costs of appointment.

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<sup>27</sup> In the case of a small customer the contract will be a market retail contract.

<sup>28</sup> The Updating the Electricity B2B Framework rule change process stems from rule change requests from the COAG Energy Council and Red Energy and Lumo Energy. These rule change requests were submitted following the publication of the AEMC's Implementation Advice on the Shared Market Protocol. A consultation paper initiating the rule change process was published on 17 December 2015.

The AEMC is satisfied that the final rule will, or is likely to, contribute to the achievement of the NEO. It is likely to:

- promote competition in the retail market for electricity services for customers within embedded networks by decreasing the barriers to embedded network customers accessing retail market offers. Competition between embedded network operators and authorised retailers in these markets will likely lead to increased productivity and efficiency, driving lower prices and a greater range of products and services for embedded network customers in the long run;
- provide a clear, understandable and transparent regulatory framework for embedded networks. The final rule removes the ambiguity in the current regulatory arrangements by identifying and assigning the market interface functions for embedded network customers to embedded network managers. This is likely to promote confidence in the regulatory framework and encourage authorised retailers to participate in the supply of retail services to customers within embedded networks. Similarly, confidence in the regulatory framework should encourage all potential providers, including network service providers, retailers, embedded network operators and other parties to participate, and invest in providing embedded network management services; and
- minimise compliance costs and administrative burden for stakeholders by providing an open market for the provision of embedded network management services by allowing any party which meets AEMO's accreditation procedure requirements to provide embedded network management services. This will allow embedded network operators to choose the supplier of embedded network management services that suits them best, including the option of performing the functions themselves.

The AEMC is also satisfied that the final rule will, or is likely to, better contribute to the achievement of the NEO than the proposed rule. In particular, the final rule allows the AER to determine when embedded network operators are not required to appoint an embedded network manager. This replaces AEMO's proposal of all embedded network operators with registrable or individual network exemptions being required to appoint an embedded network manager. The final rule will decrease compliance burdens because the AER will be able to specify that an embedded network manager is not required where the costs are likely to outweigh the benefits.

The final rule also provides for an orderly implementation of changes necessary to accommodate the new framework. This is displayed in Table 2.1. The AEMC has sought to reduce implementation costs by aligning these timeframes with the implementation of the Competition in Metering final rule.

**Table 2.1 Embedded networks implementation schedule**

<b>Date</b>	<b>Action</b>
1 September 2016	AEMO to finalise systems and procedures changes
1 December 2016	AER to finalise ring fencing and network exemption guidelines <sup>29</sup>
1 March 2017	AEMO to finalise embedded network manager accreditation procedures
1 December 2017	Embedded network framework commences, requiring relevant embedded network operators to appoint an embedded network manager

## **2.4 Strategic priority**

This rule change request relates to the AEMC's strategic priority of empowering consumers to participate in all parts of the energy supply chain where they desire to do so. The final rule will directly contribute to this priority by reducing the barriers to embedded network customers choosing the products, services and provider of retail services that suits them best.

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<sup>29</sup> The AER is required to update its ring fencing guideline by 1 December 2016 under the Competition in Metering final rule. This requirement is therefore not included in the embedded networks final rule but the AER will consider ring fencing arrangements for embedded network managers as part of the update.

### 3 Benefits of retail competition

#### Summary

This chapter sets out the Commission's views on the benefits of competitive markets, the outcomes of retail competition in electricity in the NEM and the benefits of embedded network customers being able to access retail market offers.

A competitive market is where a number of suppliers compete to satisfy the wants and needs of a number of customers. In a competitive market, customers have the ability to choose from a range of suppliers and can reject a supplier's offer if the customer does not value the product or service under the conditions, including price, that the supplier is offering. As a result, suppliers in competitive markets face incentives to improve products, offer a variety of products that customers want and offer products with conditions that suit them.

The Commission conducts annual reviews of retail competition in the NEM. The 2015 review found that competition is continuing to be effective in retail markets in Victoria, SA, NSW and south east Queensland. Competition in these markets is providing customers with discounts below standing market offers and a wide variety of products, services, and terms and conditions. The 2015 review also found that satisfaction with retailers is increasing, that customers who switched retailers were generally happy with their decision and that when customer choice is introduced, significant benefits emerge quickly.

There are a number of significant benefits in allowing embedded network customers access to retail market offers. These benefits relate to price, variety of products, quality of service and access to government schemes and consumer protections. Notably, access to retail market offers may allow embedded network customers to:

- choose the price, price structure and conditions of their electricity service that suits them best, which is likely to result in prices below standing offer prices;
- choose from a wider variety of products and services;
- choose the quality of services provided to them; and
- gain easier access to government schemes and consumer protections.

Allowing embedded network customers access to retail market offers will not prevent embedded network operators from providing retail services to embedded network customers. Rather, by removing the barriers to embedded network customers accessing retail market offers, embedded network operators will face greater incentives to compete with authorised retailers, and embedded network customers will benefit from such competition.

This chapter sets out the Commission's views on the benefits of competitive markets, the outcomes of retail competition in electricity in the NEM and the benefits of embedded network customers being able to access retail market offers.

### **3.1 Competitive markets**

A competitive market is where a number of suppliers compete to satisfy the wants and needs of a number of customers. In a competitive market, customers have the ability to choose from a range of suppliers and can reject a supplier's offer if the customer does not value the product or service under the conditions the supplier is offering.

No individual supplier or group of suppliers and no customer or group of customers can individually determine market outcomes. This is because both suppliers and customers can choose to accept or reject offers from one another. Most importantly, if customers choose not to accept an offer from a supplier there are alternative suppliers that they can purchase from.

As a result, suppliers in competitive markets face incentives to improve products, offer a variety of products that customers want and offer products with better conditions so that customers are likely to choose to purchase them. This incentive is the driver of product differentiation, innovation, quality improvements and cost reductions in a competitive market. Notably:

- suppliers can differentiate products by offering a range of options so that customers can select the products that best suits their wants and needs. In this way, a supplier can increase its market share if it can develop new products that are valued by customers;
- suppliers innovate by either improving the quality of the products offered, finding ways to supply products at a lower cost or by developing new products that have not been offered before;
- quality improvements may include providing customers with better information, improving customer service, supplying customers with more flexible options in how they use products and services or any other aspect that is valued by customers; and
- if a supplier can find ways to reduce their costs such as by improving billing and customer management systems, managing wholesale costs or any other cost reduction technique then a supplier may win market share by lowering prices.

In these ways, a competitive market offers customers choices between a range of products and services delivered by a number of suppliers at prices that reflect the underlying cost of the products and services provided. As a result, customers are able to choose the combination of product attributes and prices that best suit their needs at the lowest cost.

### 3.2 Benefits of retail competition in electricity

The AEMC conducts annual reviews of retail competition in the NEM. The 2015 Retail Competition Review (the 2015 Review) found that competition is continuing to be effective in retail markets in Victoria, SA, NSW and south east Queensland. Residential customers are actively shopping around and have a choice of between 11 and 21 retail brands offering a range of plans to suit different customer preferences. Effective competition is yet to emerge for small customers in electricity markets in Tasmania, regional Queensland and the ACT, though greater choice has emerged in the ACT with the entry of a third retailer for residential customers.<sup>30</sup>

The 2015 Review found that more customers were satisfied with their retailer and fewer customers were dissatisfied than the previous year. In particular, the majority of customers who switched retailer were happy with their decision to switch. Access to the competitive retail market provides customers with an increased ability to switch between retailers to get the best retail offer with minimal switching costs, increasing their overall satisfaction. Customers in the NEM continue to actively shop around for electricity deals, with 31 per cent of all residents surveyed stating they had actively investigated electricity options to switch to in the past 12 months.<sup>31</sup>

In Victoria, SA and NSW, customers have a greater choice of retailers and plans. In these states there are higher reported levels of customer activity and higher reported satisfaction with the level of choice available. In these jurisdictions:<sup>32</sup>

- between 16 and 21 electricity retail brands are available to residents;
- around 30 per cent of customers shopped around for a better energy deal in the last 12 months;
- around 60 per cent were satisfied with the level of choice available;
- a higher level of product differentiation is occurring; and
- customers were more confident they could choose the right energy deal than in other NEM jurisdictions.

Customers who shopped around were also more likely to have found savings and were generally more satisfied with their retailer. Those who had not investigated offers or switched were less likely to have saved or be satisfied with their retailer.<sup>33</sup>

Notably, when customer choice is introduced, significant benefits emerge quickly. For example, in the ACT, where Origin has recently entered to compete with incumbent retailers, the rate of residents investigating energy options almost doubled in 12 months.

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<sup>30</sup> AEMC 2015 Retail Competition Review Final Report, 30 June 2015, p.i.

<sup>31</sup> *ibid.* p.25.

<sup>32</sup> *ibid.*

### 3.3 Potential benefits of retail competition to embedded network customers

#### 3.3.1 Prices

Embedded network operators source electricity from the retail market and then sell it to embedded network customers. Embedded network operators may be able to negotiate a lower price with an authorised retailer than each individual embedded network customer is able to negotiate due to the increased total load giving them additional bargaining power. The Commission notes that it is possible that if a number of embedded network customers elect a retailer, this bargaining power may be impacted.

However, where barriers to embedded network customers accessing retail market offers exist, some embedded network operators face limited incentive or obligation to pass those savings on to customers because the customers cannot source energy from an alternative provider and the embedded network operator is able to charge a price up to the standing offer price.<sup>34</sup> This may result in an outcome where embedded network operators have an incentive to bargain with a retailer to obtain the best price at the parent connection point, but they do not face a strong incentive to pass on any savings at the parent connection point to embedded network customers.<sup>35</sup>

The AEMC's retail competition review found that standing offers were generally at the top of the price range of market offers and sometimes above the top of the range of market offers. Customers on standing offers were also less able to benefit from discounts, if at all.<sup>36</sup> For example, Figure 3.1 below displays the relationship between the total estimated bill and the effective discount for offers to customers in NSW on Ausgrid's network of a representative residential customer using 6,500kWh per year. The information indicates that:<sup>37</sup>

- most standing offers have zero effective discount, with only one retailer offering a small effective discount;
- most market offers had significantly greater discounts, with one retailer offering an effective discount of greater than 20 per cent; and
- market offers without discounts were typically cheaper than standing offers.

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33 *ibid.* p.ii.

34 Under the AER's retail exemption guideline, embedded network operators may charge up to the standing offer price for small customers and any price for large customers.

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

36 AER, *AER (Retail) Exempt Selling Guideline - Version 3*, April 2015, p.46.

37 AEMC, 2015 Retail Competition Review Final Report, 30 June 2015, p.122.

**Figure 3.1 Total annual expenditure vs. effective discount on flat rate market and standing offers available on the Ausgrid network**



Source: Energy Made Easy accessed on 23 February 2015; AEMC analysis.

Furthermore, even if the price negotiated by the embedded network operator with the authorised retailer at the parent connection point is directly passed on to embedded network customers, the embedded network operators' offer may still not be the best choice for each embedded network customer. This is because the particular service, and notably the tariff structure, selected by the embedded network operator is unlikely to suit every embedded network customer in the embedded network. For example, Table 3.1 displays some tariff structures for residential customers in NSW which will have different effects on customers' bills depending on their total usage and load profile. The information in Table 3.1 suggests that::

- customers that use a high proportion of their energy at off-peak times will likely be better off on a time-of use tariff structure;
- customers with low overall usage will likely be better off on tariffs with no fixed charge or an inclining block tariff structure; and
- customers with high overall usage will likely be better off on tariff structures with high fixed charges and low usage charges or on declining block tariff structures.

**Table 3.1 Structure of selected retail tariffs**

<b>Retailer</b>	<b>Tariff name</b>	<b>Tariff structure</b>	<b>Description</b>
Origin	Daily saver 10 per cent electricity usage discount	Three block inclining block tariff	Customers pay a daily charge for connection to the network and then pay energy charges that increase as they consume more energy.
EnergyAustralia	Rate fix - home - time of use	Three part time of use	Customers pay a daily charge for connection to the network and energy charges which vary depending on the time of use.
Simply Energy	NSW Australia Simply guaranteed 10 - peak only	Three block declining block	Customers pay a daily charge for connection to the network and then pay energy charges that decrease as they consume more energy.
Powershop	Powershop standard power	Flat rate (no fixed charge)	Customers pay one energy rate for energy consumed.

Source: Energy Made Easy accessed on 5 August 2015 for a residential customer in Newtown; AEMC analysis.

The 2015 Review found that in addition to the variety of tariffs and tariff structures offered in the retail market, there is significant variety in the way that retailers offer tariffs. For example, Table 3.2 below describes a range of features available for flat rate market offers to residential customer in Victoria and the number of retailers with offers for each feature.

**Table 3.2 Variety in flat rate market offers for electricity in Victoria**

	CitiPower distribution area		Other distribution areas	
	Range	Retailers	Range	Retailers
All offers	-	15	-	15
Unconditional discounts	2-23%	4	2-23%	4
Conditional discounts	2-30%	15	1-30%	15
Other incentives	Yes	7	Yes	7
No fixed term / benefit period	Yes	10	Yes	10
Fixed term / benefit period	1-3 year	8	1-3 years	8
No termination fee	Yes	11	Yes	11
Termination fee	\$20-157.5	8	\$20-157.5	8

Source: My Power Planner accessed on 27 February 2015; AEMC analysis.

Over time, the Commission expects retailers will have a greater ability to meet the needs of customers through a range of retail market offers. This is because:

- The implementation of the Distribution Network Pricing Arrangements final rule will encourage DNSPs to introduce network tariffs that more closely reflect the costs of using the network at times peak demand. This will facilitate retailers offering more dynamic pricing structures that allow customers to achieve savings through reducing or shifting peak usage.
- The commencement of the Competition in Metering final rule in 2017 will facilitate a market-led approach to the deployment of advanced meters. Advanced meters will enable retailers to offer different services through their ability to measure energy usage over smaller intervals, measure energy demand (instantaneous usage) as well as usage, automate meter reading and provide real-time consumption information.

The Commission considers embedded network customers should be able to access retail market offers, allowing them to choose the contract that best suits them, just as other customers do. This will not prevent embedded network operators providing retail services to embedded network customers. Instead, it will provide a stronger incentive for embedded network operators to pass on savings negotiated at the parent connection point and offer tariff structures to embedded network customers that they value.

### 3.3.2 Quality of service

The AER's retail guideline specifies minimum terms and conditions that embedded network operators must meet when supplying embedded network customers. The conditions address a range of quality of service issues, including:<sup>38</sup>

- information entitlements;
- metering requirements;
- billing and payment arrangements;
- connection and disconnection requirements; and
- dispute resolution systems.

Many of the terms and conditions in the retail guideline are designed to reflect the obligations that authorised retailers must meet under the NERR. However, some of the requirements have been adjusted, particularly for small embedded network operators to accommodate their circumstances. This is because the AER takes into account that these operators lack the economies of scale and scope that most authorised retailers have to provide services. Furthermore, the requirements under the NERR for authorised retailers are only minimum standards, the competitive retail market provides incentives for authorised retailers to increase quality of services where customers value it.

The Commission considers that if embedded network customers value a higher quality of retail service than the embedded network operator is providing they should have the option to choose an authorised retailer's offer. Not only will this allow embedded network customers to choose the quality of service that they value, it will also provide embedded network operators with an incentive to increase the quality of service where embedded network customers value it.<sup>39</sup>

### 3.3.3 Variety of products and services

Where barriers exist to embedded network customers accessing retail market offers, embedded network operators may have little incentive to offer customers a variety of products and services that embedded network customers may seek.

The retail market offers customers a variety of products and services. For example, Table 3.2 sets out some of the products which are currently available in the retail market in the NEM. These products range from long established products such as direct load control of hot water systems and dual fuel offers to solar power purchase

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<sup>38</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.25; and AER, *AER (Retail) Exempt Selling Guideline - Version 3*, April 2015, p.46.

<sup>39</sup> Quality of service in this context does not relate to the quality of electricity supply (for example, the voltage and frequency of electricity). This is because quality of electricity supply is not influenced by the provider of retail services.

agreements and storage combinations which have only recently begun to be offered in the NEM.

**Table 3.3 Variety of products to residential customer**

<b>Product</b>	<b>Explanation</b>
Direct load control	Customers receive discounted prices on electricity used by certain devices (for example, hot water) within the premises in exchange for allowing the retailer or DNSP control over when the devices are used.
Duel fuel	Customers purchase bundled electricity and gas tariffs at discounted prices.
Solar PV	Customers purchase solar PV and then receive a feed-in tariff for energy fed back into the grid and reduced bills by consuming energy from the panels instead of from the grid. Solar leasing and solar PV power purchasing agreements are also becoming more popular. In these arrangements a supplier installs a solar PV system on the customers home or business and the customer makes monthly repayments on the system for a period of time, instead of purchasing the panels up front.
GreenPower	Customers are able to pay retailers a premium to guarantee that a proportion of their electricity usage is matched with electricity from government accredited GreenPower sources.
Solar plus batteries and home energy management	Customers combine batteries with their solar PV to allow them to store energy for use when prices are high or as backup for when energy from the grid is unavailable. Retailers and other service providers are also making available home energy management systems to maximise the savings customers can make from their solar and batteries by feeding energy back in to the grid at times of high prices and charging the batteries at time of low prices.

Source: AEMC analysis; Energy Made Easy accessed on 5 August 2015 for a residential customer in Newtown

Over the medium to longer-term the Commission expects a greater range of products to be offered and taken up in the retail market, supported by the roll out of advanced metering technology as a result of the Competition in Metering final rule.

The Commission considers that where embedded network customers value products or services available from authorised retailers the customers should be able to select an authorised retailer's offer. Such access would also provide embedded network operators which have the capability to offer a range of products and services, an increased incentive to provide them.

Some embedded network operators will have a competitive advantage in providing a range of products and services to embedded network customers which could result in significant benefits to embedded network customers. For example, an embedded network operator of a retirement home in Victoria noted to the AEMC in discussions that it had responded to a critical peak price from AusNet Services at the parent connection point by providing its tenants with activities located outside of the

retirement village on the five critical peak days of the year. This significantly decreased the embedded network operators' retail bills and allowed it to provide lower prices the next year to its tenants. The Commission considers that embedded network operators should be incentivised to use their competitive advantages through exposure to competition and that this will likely result in a share of the reduced costs being passed on to embedded network customers.

### **3.3.4 Access to government schemes and consumer protections**

Jurisdictional governments have a variety of government schemes and consumer protection mechanisms that are easily accessed by customers of authorised retailers. Key examples of these schemes include access to free dispute resolution services by the relevant state ombudsman and hardship policies.

While access to these schemes is not within scope of this rule change process, an additional benefit of access to retail market offers for embedded network customers is likely to be their ability to easily access these schemes if they choose an authorised retailer's offer. This may in turn provide an incentive for embedded network operators to assist in allowing customers access to such schemes.

## **3.4 Conclusion**

There are a number of benefits in allowing embedded network customers access to retail market offers. These benefits relate to price, quality of service, variety of products, and access to government schemes and consumer protections. Notably, access to retail market offers may allow embedded network customers to:

- choose the price, price structure and conditions of their electricity service that suits them best, which may result in prices below standing offer prices;
- choose from a wider variety of products and product offerings;
- choose the quality of services provided to them; and
- gain easier access to government schemes and consumer protections.

The Commission notes that access to retail market offers does not mean that embedded network operators will be prevented from providing retail services to embedded network customers. Instead, by removing the barriers to embedded network customers accessing retail market offers, embedded network operators will face greater incentives to compete with authorised retailers on price, quality of service and variety of products. This will also provide a greater incentive for embedded network operators to make effective use of their competitive advantages, including their natural small scale aggregation function, their existing commercial relationships with embedded network customers and their familiarity and regular use of the physical premises.

## 4 Regulatory framework for embedded networks

### Summary

This chapter sets out the overall regulatory framework for embedded networks under the final rule, particularly in regard to allowing embedded network customers access to retail market offers.

The current regulatory arrangements do not make any one party responsible for performing market interface services for on-market embedded network customers. These are the services that link customers to the NEM systems that allow them to purchase electricity from retailers. These services include providing NMIs to customers, maintaining NMI standing data (for example, a customer's address) within MSATS and facilitating transfers between retailers. Without a party responsible to perform these services, embedded network customers which are off-market and are seeking to become on-market, or are on-market and seeking to change retailer face uncertainty and barriers.

To address this problem AEMO proposed to introduce a new accredited provider role into the NER – the embedded network manager. AEMO also recommended changes to jurisdictional instruments and the AER's network exemption guideline to further reduce barriers to embedded network customers accessing retail market offers.

The final rule adopts the majority of the proposed rule, including the creation of the embedded network manager role in the NER to perform market interface services for embedded network customers. The key difference between the proposed rule and the final rule is that the final rule includes a more flexible approach to deciding when an embedded network manager must be appointed by an embedded network operator.

The Commission also considers changes to the NERR would be beneficial to clarify the regulation of authorised retailers supplying embedded network customers. However, it does not have the power to do so under this NER rule change request. The Commission therefore recommends that the COAG Energy Council request the Commission to undertake a review of the NERL and NERR to identify and assess the issues regarding the regulatory arrangements for embedded network customers.

This chapter sets out the Commission's overall regulatory framework for embedded networks, particularly in regard to allowing embedded network customers access to retail market offers. It provides:

- AEMO's view of the current barriers to embedded network customers accessing retail market offers and its proposed solution;
- stakeholders' responses to AEMO's proposed solution and the draft rule determination; and

- the Commission's analysis and changes to the regulatory framework for embedded networks.

The individual elements of the regulatory framework highlighted in this chapter are then addressed in more detail in Chapters 5-8 and Appendix C.

## **4.1 AEMO's proposal**

### **4.1.1 Barriers to retail competition**

AEMO's rule change request identified that there are three key areas of regulation which create barriers to embedded network customers accessing retail market offers. These include:<sup>40</sup>

1. The NER does not make it clear who has the obligation to support NEM activities for customers within embedded networks that are on-market or are off-market and are seeking to become on-market. This includes:
  - (a) Who assigns embedded network customers a NMI when they seek to go on-market?
  - (b) Who has the obligation to set up and maintain the MSATS standing data for an embedded network?
  - (c) Who performs the NEM processes for the transfer of embedded network customers between retailers, particularly between the embedded network operator and an authorised retailer?
  - (d) Who has access to embedded network customers' metering data?
2. The terms and conditions of the AER's exemption guidelines do not fully facilitate customers accessing retail market offers because they do not require:
  - (a) embedded network operators to separate off-market customers' bills into network and retail components, making it difficult for off-market customers to compare offers from retailers, which only include retail services, to offers from embedded network operators, which include network and retail services; and
  - (b) the meter inspection, reading and testing standards for off-market embedded network customers to be the same as for on-market customers, making it more likely off-market customers will need to purchase a new meter to go on-market.
3. Jurisdictional regulations create barriers to embedded network customers accessing retail market offers. Notably:

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<sup>40</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.4.

- (a) Queensland, Tasmania and the ACT have not designed regulatory arrangements to facilitate the parent-child metering arrangements that are necessary for embedded network customers to access retail market offers; and
- (b) The regulatory arrangements which allow access to retail market offers in NSW, South Australia and Victoria are inconsistent.

#### **4.1.2 Solution**

Figure 4.1 sets out the proposed changes to the embedded networks regulatory framework to remove these barriers to embedded network customers accessing retail market offers.

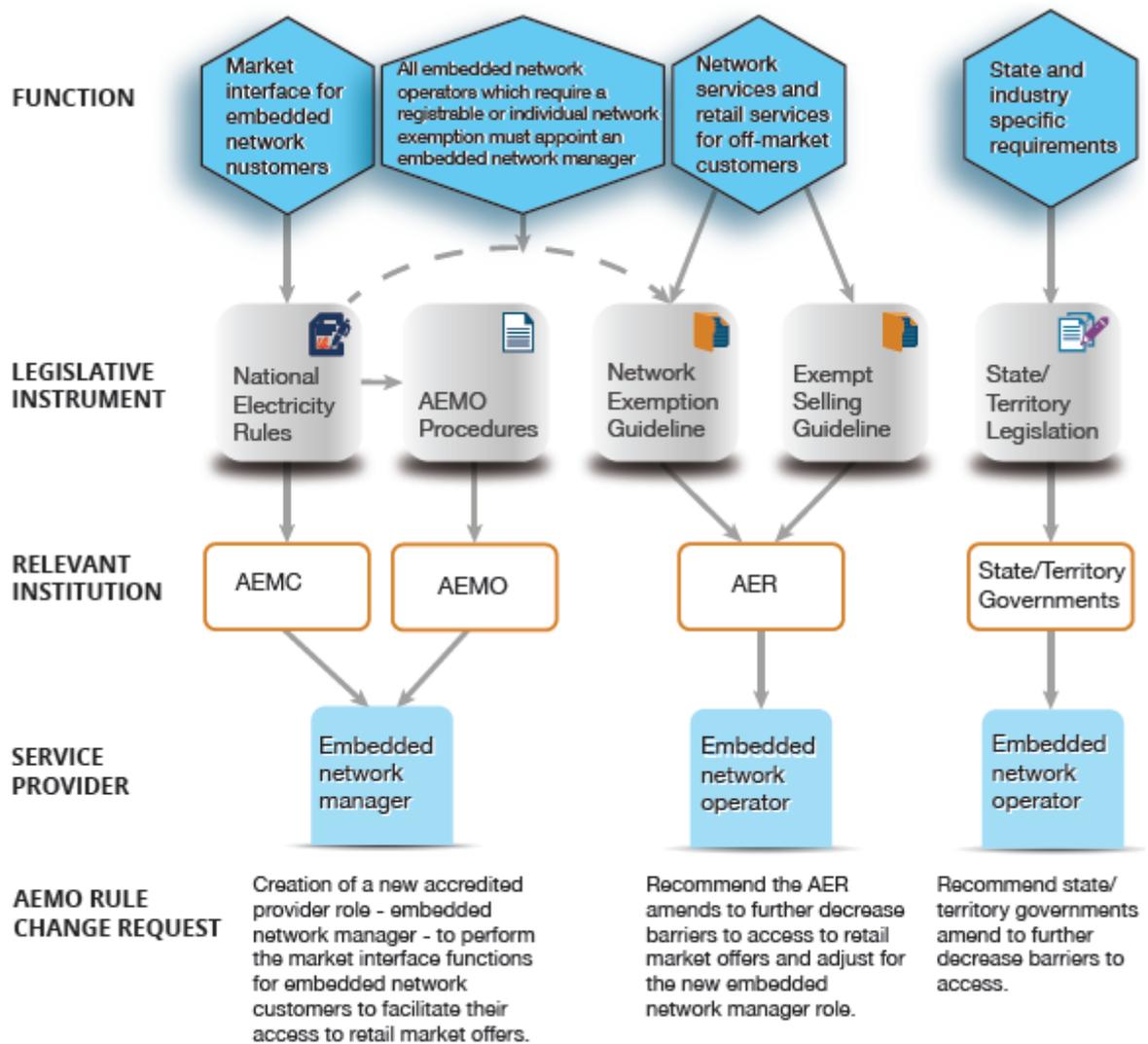
The key features of the proposed regulatory framework are:<sup>41</sup>

- creation of a new accredited provider role – embedded network manager – to perform the market interface functions for embedded network customers required to facilitate embedded network customer access to retail market offers;
- a requirement that the AER only grant an embedded network operator a registrable or individual network exemption if the embedded network operator has appointed an embedded network manager; and
- recommendations to the AER and jurisdictional governments to amend the network exemption guideline and jurisdictional regulations respectively to further reduce barriers to embedded network customers accessing retail market offers.

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<sup>41</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.4.

**Figure 4.1 AEMO's proposed regulatory framework**



## 4.2 Submissions

In regard to AEMO's proposed regulatory arrangements, submissions fell into three groups:

- stakeholders that supported the proposed regulatory framework;
- stakeholders that supported the framework but considered that substantial further changes are necessary; and
- stakeholders that opposed the framework.

#### 4.2.1 Support for the embedded network framework

The AER, DNSPs, retailers, consumer groups and large embedded network operators supported AEMO's proposed regulatory framework in submissions to the consultation paper.<sup>42</sup>

For example, AGL Energy considered that the proposed framework would:<sup>43</sup>

- significantly increase the clarity of the role and responsibilities of embedded network operators;
- enable customers within embedded networks to have greater access to the competitive market. This is expected to increase competition (especially for third party sites) within the embedded network; and
- create a new market role, the embedded network manager, which is a new competitive service that will allow improved management of embedded networks.

The draft rule adopted the majority of AEMO's proposed regulatory framework but with a more flexible approach to determining when embedded network operators are required to appoint an embedded network manager. The draft rule determination also recommended analysis of potential changes to the National Energy Retail Rules and recommended changes to jurisdictional legal instruments and the AER's network exemption guideline.

The AER, DNSPs, retailers, consumer groups and embedded network operators all supported the regulatory framework in the draft rule determination.<sup>44</sup> For example, SACOSS considered that:<sup>45</sup>

“SACOSS supports the Commission’s Draft Determination. SACOSS believes the key features – creation of a new accredited provider role, clarity about network exemptions, provision of customer rights in exercising their rights to a retail market offer and an implementation framework for AEMO, DNSPs and retailers – support the goal of assisting embedded network customers to access retail offers. SACOSS believes this is an important goal as it addresses the imbalance between customers in embedded networks and customers of authorised retailers, in terms of access to consumer protections. The fact that embedded network customers will now have a choice

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<sup>42</sup> For example, submissions from: AER, 26 June 2015, p.1; AusNet Services, 2 July 2015, p.1; AGL Energy, 2 July 2015, p.1; PIAC, 2 July 2015, p.1; and SCCA, 2 July 2105, p.1.

<sup>43</sup> AGL Energy submission, 2 July 2015, p.1

<sup>44</sup> For example, submissions from: AER, 29 October 2015, p.1; Energy Networks Association (ENA), 22 October 2015, p.1; Energy Retailers Association of Australia (ERAA), 22 October 2015, p.1; South Australian Council of Social Service (SACOSS), 22 October 2015, p.1; and Shopping Centre Council of Australia (SCCA), 22 October 2015, p.1.

<sup>45</sup> SACOSS submission, 22 October 2015, p.1.

about accessing additional protections is an important step towards harmonising customer protections across the NEM customer base.”

#### **4.2.2 Substantial other issues need to be addressed**

Jemena and the SA Department of State Development provided support for the intent of the rule change request but suggested there are further reforms that are necessary for the regulatory framework for embedded networks. These are described below.

##### **Bottom up reform**

Jemena supported both the intent of the rule change request and the introduction of the embedded network manager role to facilitate access to retail market offers.<sup>46</sup> However, it considered that the scope of the rule change request assessment should be expanded to review all of the regulatory framework for embedded networks, particularly the validity of the exemption framework. Jemena considered this fuller assessment should include consideration of:

- embedded networks in gas;
- whether the binary two tiered system of current regulation – registered DNSPs/authorised retailers compared to exempt network service providers/exempt retailers – is appropriate; and
- whether embedded networks have the potential to allow customers to benefit from new and evolving technologies.

Jemena stated there is a need to start from first principles to consider whether the current framework is appropriate.

Submissions to the draft rule determination did not address this issue.

##### **Right to access standing and market offers**

The SA Department of State Development submitted that a core problem for embedded network customers accessing retail market offers is the availability of offers for embedded network customers and their ability to compare these offers to those of embedded network operators. To address this problem the SA Department of State Development proposed that the Commission should consider:<sup>47</sup>

- a more preferable rule under which the embedded network customer has the right to access currently available standard and market offers which include the network component of the regulated network service provider at the parent connection point; and

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<sup>46</sup> Jemena submission, 2 July 2015, p.5.

<sup>47</sup> SA Department of State Development submission, 30 June 2015, p.3.

- a more preferable rule which requires retailers to offer at least one generally available offer for embedded network customers.

In the draft rule determination the Commission set out that while it supports the intent of providing embedded network customers easier access to retail market offers, the regulation of such offers occurs under the NERL and NERR, and are beyond the scope and Commission's powers under this NER rule change process (see Chapter 7).

In its submission to the draft rule determination the SA Department of State Development maintained that the current market retail contract framework is not sufficient to ensure small embedded network customers have visibility of retail energy offers and considered that a low cost approach to enhance that visibility is to mandate that authorised retailers must publish any offers it has available for small embedded network customers. The department also considered this issue could be monitored for effectiveness by the AEMC through regular competition reporting.<sup>48</sup>

The SA Department of State Development suggested an alternative to this would be a recommendation that the AER consider amending its Retail Pricing Information Guidelines to ensure that the definition of "generally available" market offers specifically includes market offers available to embedded network customers.<sup>49</sup>

### **4.2.3 Do not support the proposal**

#### **Submissions**

TradeCoast Central opposed the proposed rule. It stated in its submission to the consultation paper that the costs of the rule change outweigh the benefits because the cost-benefit analysis undertaken by SKM Jacobs for AEMO only returned a marginally positive result and it did not take into account the cost of embedded network operators hiring embedded network managers.<sup>50</sup>

In the draft rule determination, the Commission set out that the benefits of access to retail market offers are likely to be significantly larger than that set out in SKM Jacob's cost benefit analysis. The Commission also set out that the costs are likely to be lower due to coordinated implementation with the other power of choice rule changes.

No submissions to the draft rule determination provided further comments on this issue.

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<sup>48</sup> SA Department of State Development submission, 31 October 2015, p.2.

<sup>49</sup> SA Department of State Development submission, 31 October 2015, p.2.

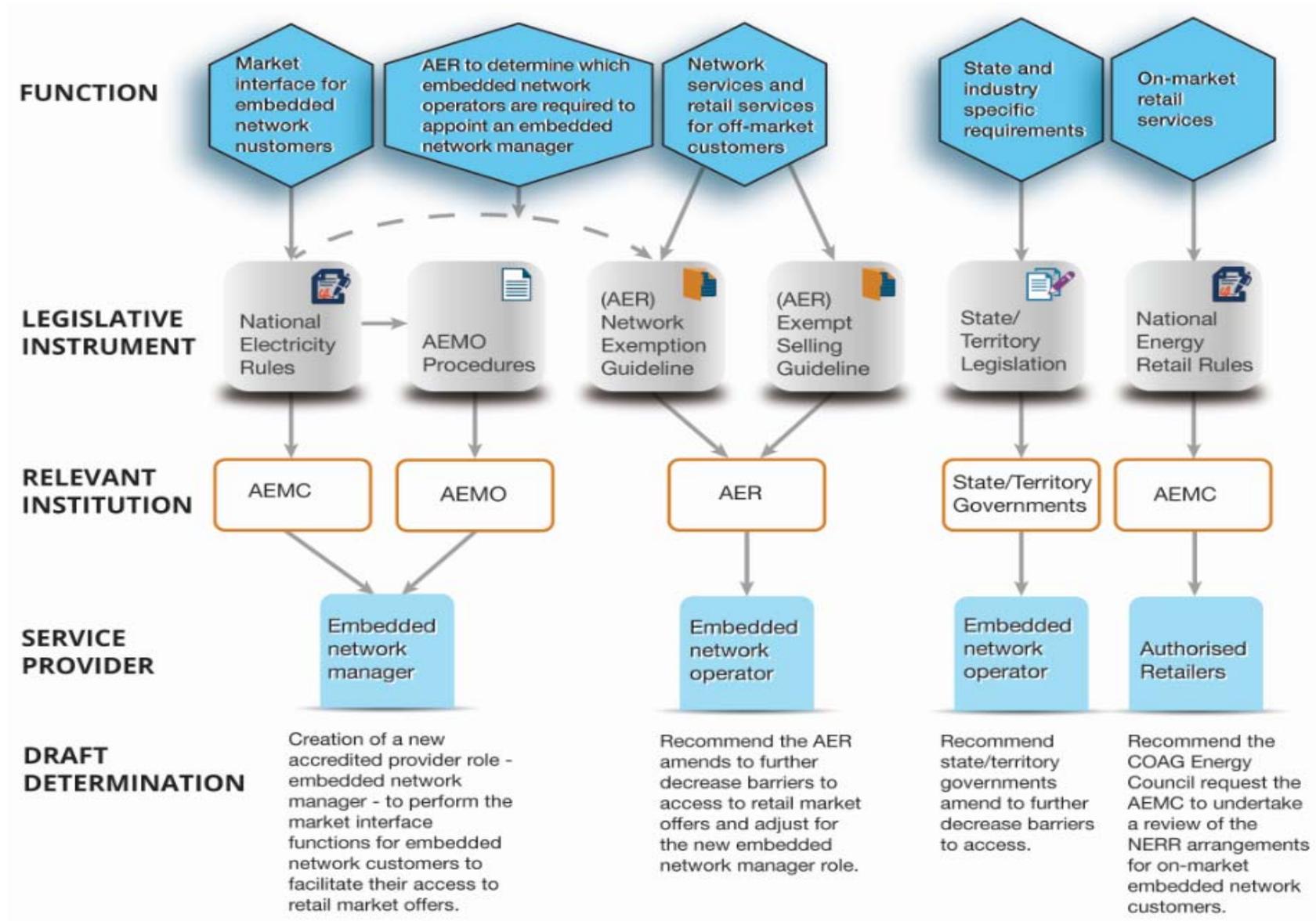
<sup>50</sup> TradeCoast Central submission, 2 July 2015, p.1.

## **4.3 Commission's analysis**

### **4.3.1 Regulatory framework**

The Commission's final rule is largely consistent with AEMO's framework but with some changes, amendments and additions. The Commission's framework is displayed in Figure 4.2.

Figure 4.2 AEMC's regulatory framework



The major differences between the proposed framework and the final rule are:

- Instead of requiring all embedded network operators with registrable or individual network exemptions to appoint an embedded network manager, the final rule guides the AER's discretion to determine which embedded network operators are required to appoint an embedded network manager.
- Implementation of the changes required for the new framework is provided for in the final rule. This removes the need for the proposed deeming and grandfathering provisions by providing adequate time for interested parties to be accredited as embedded network managers and relevant embedded network operators to appoint an embedded network manager prior to commencement of the proposed rule on 1 December 2017; and
- The Commission considers changes to the NERR will be beneficial in clarifying the regulation of retailers supplying embedded network customers. However, it does not have the ability to make these changes as part of this rule change process. The rule change request was made under the NEL only, not the NERL, and the Commission's limited power to make corresponding changes to the NERR insufficient to make such changes. The Commission therefore recommends that the COAG Energy Council request the Commission to undertake a review of the NERL and NERR to identify and assess the issues regarding the regulatory arrangements for embedded network customers.

Each element of the Commission's framework is set out in Chapters 5-8. Specifically:

- Chapter 5 sets out the introduction of the embedded network manager role and the threshold for which embedded network operators will be required to appoint an embedded network manager;
- Chapter 6 sets out recommended changes to jurisdictional regulations and the AER's exemption guidelines;
- Chapter 7 sets out the nature of the NERR issues arising and recommends the COAG Energy Council request the Commission to undertake a review of the NERR for embedded network customers; and
- Chapter 8 sets out the implementation schedule for the final rule.

#### *Changes from draft to final*

The overall regulatory framework in the final rule is the same as in the draft rule.

The final rule includes minor changes from the draft rule to clarify the definition of an embedded network and what constitutes an embedded network customer exercising 'a right to a choice of retailer' (seeking to go on-market). These are set out in Appendix C and Chapter 5 respectively.

### 4.3.2 Response to other stakeholder issues

#### Bottom up reform

Jemena raised a number of important issues regarding the regulatory framework for embedded networks in both electricity and gas. Notably:

- the National Gas Law and Rules do not cater for embedded networks;
- while the NER provides a framework to incentivise network service providers to adopt new technologies in provision of network services and retail competition provides incentives to retailers to do the same, the light-handed regulatory framework for embedded networks does not do the same; and
- the exemption framework was not originally designed to deal with embedded networks on the scale and scope that they have been recently developing.

Accordingly, Jemena advocated for a wholesale review of embedded networks.

These problems are substantial and require a broader review of the AER's exemptions framework for electricity and gas, and the issue of how third party providers (parties that are not retailers or NSPs) that offer products and services are regulated. These issues are beyond the scope of this rule change process and so cannot be assessed. In addition, the Commission does not have the power as part of this NER rule change request to make changes to how gas embedded networks are regulated under the National Gas Rules. For these reasons, the final rule does not address these particular matters raised by Jemena.

The Commission's view of a broad review of embedded networks is set out in Chapter 7.

#### Right to access standing and market offers

The Commission supports the intent of the SA Department of State Development submissions to the consultation paper and draft rule determination of providing easier access to, and greater transparency of retail market offers for embedded network customers. However, mandating the availability or publication of retail offers would require changes to the NERL and NERR, and are therefore beyond the scope of this NER rule change process (see Chapter 7).

The Commission also cautions against placing obligations on retailers binding them to make or publish offers to embedded network customers where the offers have been designed for customers directly connected to DNSPs' networks. If such an obligation was to be imposed, more significant changes to the NERL, NERR and exemption guidelines would be likely to be required to recognise embedded networks. Therefore, while the inclusion of embedded network customers may be appropriate in the Retail Pricing Information Guidelines, the Commission does not recommend that the definition of "generally available" market offers specifically includes market offers available to embedded network customers.

The Commission considered expanding the market definition for the 2015 retail competition review to include off-market embedded network customers and will do so again in future reviews.<sup>51</sup>

### **4.3.3 Response to submissions that do not support the proposal**

The Commission notes TradeCoast Central's views on the consultation paper regarding the SKM Jacob's cost benefit analysis. However, the benefits of allowing embedded network customers access to retail market offers are likely to be substantially greater than those quantified in SKM Jacob's cost benefit analysis. While considering that there are likely to be a wide range of benefits, SKM Jacobs only quantified one benefit of embedded network customer access to retail market offers – the benefit of a reduction in dead weight loss from increased demand by embedded network customers responding to lower prices in the retail market. Further discussion on the wide range of benefits from allowing embedded network customers access to retail market offers is set out in Chapter 3 of this final rule determination.

In addition, the costs of implementing the final rule are also likely to be less than SKM Jacobs estimated. SKM Jacobs cost estimation consisted of asking stakeholders what the cost of implementing and applying the embedded networks proposal as a stand-alone project or a project combined with the implementation of a specific design of the Multiple Trading Relationships rule change is likely to be. Stakeholders were therefore not able to take into account cost reductions from the Commission's proposed coordinated implementation with changes arising from the Competition in Metering rule change process. As stakeholders have highlighted in submissions, the incremental cost of the changes will be substantially below the stand alone cost.

Accordingly, as noted in Chapter 2, the Commission is satisfied that the likely benefits of the final rule for embedded networks outweigh the likely costs.

The Commission's final rule provides a regulatory framework for embedded network management that is likely to minimise the cost of provision of the market interface functions. By creating a market where any party that meets the accreditation requirements, including the embedded network operator itself, can provide embedded network management services, costs will be minimised through competition to provide the services. Furthermore, in cases where customers under the current arrangement have managed or sought to go on-market, the framework is likely to result in cost reductions because the current arrangements are unclear and do not provide for any party to perform the functions.

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<sup>51</sup> AEMC, 2015 Retail Competition Review, Final Report, 30 June 2015, p.6.

## 5 Embedded network management

### Summary

This chapter provides the Commission's assessment of the proposed new accredited provider role – the embedded network manager – to be responsible for providing market interface services to embedded network customers.

The final rule is consistent with the proposed rule relating to the key market interface services to be performed, the creation of the embedded network manager role as an accredited provider, and allowing an open market for the provision of embedded network management services.

Unlike the proposed rule, the final rule provides a flexible threshold for when an embedded network operator is required to appoint an embedded network manager. The threshold specified in the final rule requires embedded network operators to appoint an embedded network manager unless:

- all of the embedded network customers will not be able to gain access to a retail market offer even if an embedded network manager is appointed; or
- the AER considers that the costs of appointing an embedded network manager are likely to outweigh the benefits.

Further, where the AER determines that an embedded network operator is not initially required to appoint an embedded network manager, the embedded network operator would be required to do so if a customer within the network exercises its right to a choice of retailer.

The key advantages of this more flexible threshold are:

- all customers in jurisdictions that allow access to retail market offers that seek a retail market offer will have access facilitated by an embedded network manager;
- embedded network operators in jurisdictions that do not allow access to retail market offers will not bear the cost of appointing an embedded network manager;
- embedded network operators operating where the costs of appointing an embedded network manager are likely to outweigh the benefits (for example, an embedded network with very few customers) will not be required to bear the costs unless a customer seeks to go on-market; and
- providing the AER with discretion to set the threshold will allow flexibility to adjust to evolutions in embedded networks.

### *Changes from draft to final*

The Commission has made a minor change to the threshold for appointing an embedded network manager by clarifying that a customer exercising a right to a choice of a retailer involves forming a contract with that retailer.<sup>52</sup>

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<sup>52</sup> In the case of a small customer this means entering a market retailer contract and the relevant cooling off period expiring. In the case of a large customer this means the formation of a contract for the supply of energy with a retailer.

This chapter provides the Commission's assessment of the proposed new accredited provider role, the embedded network manager. This chapter sets out:

- a summary of market interface functions required to allow embedded network customers smooth access to retail market offers;
- the choice of market participants and accredited providers that the functions could be assigned to;
- consideration of applying a threshold over which embedded network operators are required to appoint an embedded network manager; and
- the potential market for embedded network management services.

The detailed design and related issues the Commission has considered in relation to the embedded network manager role are addressed in Appendix C.

## **5.1 Market interface functions required to facilitate access to retail market offers**

### **5.1.1 AEMO proposal**

The market interface functions AEMO considered are required to allow embedded network customers access to retail market offers included:<sup>53</sup>

- The LNSP role provided for in MSATS and the B2B procedures for the on-market embedded network child connection points. For example:
  - requesting AEMO to provide NMI and allocating these NMIs to child metering installations in MSATS when an off-market embedded network customer requests to become on-market;
  - maintaining all standing data required in connection with on-market embedded network child NMIs; and
  - managing MSATS and B2B interfaces for the embedded network connection points.
- Allocating a unique name for the embedded network, which would be an identifying embedded network code, to the parent NMI in MSATS and maintaining that code when embedded network customers become on-market customers. This demonstrates in MSATS that the parent and all of the on-market child connection points are part of the same embedded network.
- Maintaining and communicating information regarding embedded network customers to market participants and accredited providers. For example:

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<sup>53</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.9.

- maintaining information about the subtractive metering arrangements relating to the configuration of the metering installation and making that information available on request to any retailer to whom an embedded network customer is proposing to transfer or to that retailer’s metering provider;
- where electricity supply must be maintained for life support requirements, notifying the financially responsible market participant of the parent connection point of the requirement; and
- communicating with local retailers, market customers and distribution network service providers in relation to all on-market and prospective on-market embedded network customers.

## 5.1.2 Submissions

### Core functions

Retailers, DNSPs, large embedded network operators and consumer groups supported the need for AEMO's proposed functions to be performed by a person to facilitate embedded network customers accessing retail market offers.<sup>54</sup>

Several small embedded network operators did not agree that the market interface functions proposed by AEMO would be necessary. For example, the Caravan, Camping and Touring Industry and Manufactured Housing Industry Association of NSW (CCIA) considered that it is unnecessary for the NER to make it clear who has the obligation to support NEM activities related to customers within embedded networks because under the AER’s exemption guidelines it is the responsibility of an embedded network operator to manage its own network.<sup>55</sup>

In the draft rule determination the Commission considered that the core functions proposed by AEMO are necessary to allow embedded network customers to go on-market and do not relate to embedded network operators operating the embedded network.

Retailers, DNSPs, embedded network operators and consumer groups supported the position in the draft rule determination that the core functions need to be performed to facilitate embedded network customers accessing retail market offers.<sup>56</sup>

### Life support

Submissions to the consultation paper did not address this issue.

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<sup>54</sup> For example, submissions from: Origin Energy, 2 July 2015, p.2; Energy Networks Association, 2 July 2015, p.3; Shopping Centre Council of Australia, July 2015, p.11; and Consumer Utilities Advocacy Centre, 25 June 2015, p.4.

<sup>55</sup> CCIA submission, 1 July 2015, p.3.

<sup>56</sup> For example, submissions from: AER, 29 October 2015, p.1; ENA, 22 October 2015, p.1; ERAA, 22 October 2015, p.1; SACOSS, 22 October 2015, p.1; and SCCA, 22 October 2015, p.1.

In the draft rule determination the Commission considered that life support services must continue to be undertaken by embedded network operators, not embedded network managers because there will not be an embedded network manager for all embedded networks.

Retailers, DNSPs, embedded network operators and consumer groups supported the position in the draft rule determination that embedded network operators must be required to perform the life support functions instead of embedded network managers.<sup>57</sup>

### **Additional functions**

While agreeing with the functions specified, DNSPs considered that network functions that would usually be the responsibility of DNSPs should also be added. For example, the ENA considered the functions should also include safe management of de-energisation and re-energisation and meter installation exchanges.<sup>58</sup>

In the draft rule determination the Commission considered that the additional functions proposed by DNSPs are network functions and are therefore the responsibility of embedded network operators.

The DNSPs supported the position in the draft rule determination that the additional functions must be allocated to embedded network operators not the embedded network manager.<sup>59</sup>

### **5.1.3 Commission's analysis**

#### **Core functions**

The Commission notes CCIA's submission to the consultation paper that the functions outlined by AEMO do not need to be performed because embedded network operators have the responsibility to manage their own networks. However, as set out in Chapter 4, the functions proposed by AEMO are separate from the provision of network, retail and metering services to embedded network customers. Instead, the functions proposed by AEMO relate to actions that need to be performed in the market systems to provide the link between embedded network customers and market participants.

Many of these functions, such as maintaining standing data in MSATS, are the same for small electricity customers generally as they are for on-market embedded network customers. The NER specifies that the LNSP must perform these functions for non-embedded network customers. While the functions are not necessary for off-market embedded network customers, the NER does not currently assign

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<sup>57</sup> For example, submissions from: Origin Energy, 22 October 2015, p.4; ENA, 22 October 2015, p.4; and CCIA, 22 October 2015, p.4.

<sup>58</sup> ENA submission, 2 July 2015, p.3.

<sup>59</sup> ENA submission, 22 October 2015, p.4.

responsibility to perform them to any party for on-market (or off-market customers seeking to become on-market) embedded network customers.

This lack of role assignment provides a significant barrier to embedded network customers accessing retail market offers because it is difficult for retailers to access information about the customers in MSATS.<sup>60</sup> As a result, the smooth flow of information provided for in the B2B procedures is prevented from occurring. The Commission therefore considers that the NER should allocate responsibility to a specific party to remove these barriers to embedded network customers accessing retail market offers.

## **Life support**

Currently, under the AER's network exemption guideline, responsibility for notification of life support requirements rests with the embedded network operator.<sup>61</sup> AEMO proposed that where electricity supply must be maintained for life support requirements within an embedded network an additional function to be performed by the embedded network manager is the notification of the financially responsible market participant (usually the retailer) at the parent connection point of the life support requirement.<sup>62</sup>

However, the Commission considers that life support notification responsibilities must continue to rest with the embedded network operator. This is essential because the embedded network manager will not necessarily be appointed for all embedded networks and life support notification is likely to be needed in some embedded networks that do not have an embedded network manager. As no change to the arrangements in the NER is needed, the final rule does not specify the allocation of this task in the context of an embedded network. Further discussion on life support notification requirements for embedded network operators is set out in Chapter 6.

## **Additional functions**

Submissions from DNSPs to the consultation paper identified a number of functions that could be the responsibility of an embedded network manager. It is important that these functions proposed by DNSPs are assigned to a specific party. However, as the DNSPs highlighted, these functions are 'network' functions. The Commission considers that network functions within embedded networks are most appropriately the responsibility of embedded network operators rather than embedded network managers. As a result, the assignment of these functions to the embedded network operator is a matter for regulation through the AER's network exemption guideline. The final rule does not include an allocation of such tasks within an embedded network.

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<sup>60</sup> The Commission notes that this is not impossible under the current arrangements but it relies on the LNSP performing functions which it is not responsible for which has resulted in variable results for customers.

<sup>61</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.25.

<sup>62</sup> AEMO, *National Electricity Rule Change Request – Embedded Networks*, September 2014, p.9.

## 5.2 Who should perform market interface functions?

### 5.2.1 AEMO's proposal

After identifying the list of market interface functions, AEMO examined who should perform the functions. AEMO concluded that a new accredited provider role – the embedded network manager should be created in the NER. AEMO proposed that the role would be contestable, using the approach taken in the NER for accrediting metering providers and metering data providers. AEMO considers that this approach would have a number of benefits, including:<sup>63</sup>

- the creation of a competitive market for embedded network management services which will allow embedded network operators to choose the lowest cost provider;
- allowing a wide range of parties to provide the services, including embedded network operators, retailers and DNSPs;
- assurance through an AEMO accreditation process of the capability of the parties to provide the services; and
- the high costs of full NEM registration would be avoided.

Prior to concluding that the new role of embedded network manager should be created, AEMO considered a number of other entities to perform the required functions. These are set out below:<sup>64</sup>

- LNSP or retailer of the parent connection point

AEMO considered that these market participants have the capability and expertise to provide the embedded network management functions because they are already familiar with MSATS and the B2B procedures. However, AEMO considered that if the functions were simply assigned to these parties the benefits of a contestable market for embedded network management services would be lost and other parties would be prevented from providing the services. Further, although the LNSP and retailer are capable in general, in the specific case of embedded networks, they have no relationship with embedded network customers. In this sense the functions – as applied in context of embedded networks – do not fit well with the LNSP or retailer.

- The embedded network operator

The functions could be allocated to the embedded network operator by adding to the conditions of network exemptions under the AER's network guideline. AEMO considered some embedded network operators may be capable of performing the embedded network management functions (and will be able to be accredited under AEMO's proposal) but others will not have the expertise or resources to do so. This would therefore risk some embedded network operators breaching their exemption

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<sup>63</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.10.

<sup>64</sup> *ibid.*

conditions, compromising the MSATS and B2B procedures, and impacting on the services provided to customers.

- A new classification of market participant

AEMO considered market regulation is not warranted because the embedded network management functions are providing services to others rather than trading in the market. The increased costs of the registration requirements of a participant category are therefore unnecessary.

- Some other entity

The Competition in Metering final rule introduces a new market participant – the metering coordinator – that will take on the current roles and responsibilities of the responsible person and could be assigned the embedded network management functions. However, the role primarily relates to coordinating accredited service providers, such as metering data providers, to undertake functions for customers, not performing functions themselves. Furthermore, similar to the parent retailer and LNSP, the parent metering coordinator will have no direct relationship with customers.

### **5.2.2 Submissions**

Initial submissions from retailers, DNSPs, embedded network operators and consumer groups all supported the creation of a new accredited provider role to perform the market interface functions proposed by AEMO.<sup>65</sup>

Second round submissions from retailers, DNSPs, embedded network operators and consumer groups supported the creation of a new accredited provider role to perform the market interface functions as set out in the draft rule determination.<sup>66</sup>

### **5.2.3 Commission's analysis**

The Commission has considered AEMO's analysis of the potential entities to perform the market interface functions. In particular, it notes that:

- DNSPs, retailers and metering coordinators of the parent connection point are not well placed to perform the functions as they are unlikely to have a relationship with embedded network customers;
- the child connection point retailer or metering co-ordinator cannot perform the required functions as they are not in place to initiate the transfer from the embedded network operator to an authorised retailer and the customer may change retailer or metering coordinator at a later date;

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<sup>65</sup> For example, submissions from: Origin Energy, 2 July 2015, p.2; AusNet Services, 2 July 2015, p.7; Shopping Centre Council of Australia, July 2015, p.11; and Consumer Utilities Advocacy Centre, 25 June 2015, p.4.

<sup>66</sup> For example, submissions from: ERAA, 22 October 2015, p.1; ENA, 22 October 2015, p.1; Shopping Centre Council of Australia, 22 October 2015, p.1; and SACOSS, 22 October 2015, p.1.

- the functions could not become a requirement for all embedded network operators to perform under the AER's exemption guidelines because not all embedded network operators will have the expertise required to perform the functions; and
- a registered participant classification is not necessary.

The final rule therefore provides for the creation of the new accredited provider role - the embedded network manager.

### **5.3 When should an embedded network manager be required?**

#### **5.3.1 AEMO proposal**

AEMO proposed that all embedded network operators that are required to gain a registrable or individual network exemption from the AER under the AER's network exemption guideline also be required to appoint an embedded network manager. Embedded network operators eligible for deemed network exemptions would not be required to appoint an embedded network manager.<sup>67</sup>

Appendix D provides details of which embedded network operators are currently required to gain a registrable or individual network exemption. Broadly, the AER's network exemption guideline provides for deemed exemptions for embedded network operators operating embedded networks of a small scale and with a low number of customers. Registrable or individual exemptions are required to be sought for embedded network operators responsible for embedded networks of a larger scale or with a larger number of customers. For example, under the current network guideline, the deemed exemption class covers small industrial or commercial networks with less than ten customers. Larger networks or networks with more than ten customers are often required to gain registrable or individual exemptions.

However, as indicated in Appendix D, there are several important exceptions to this:

1. all retirement villages and caravan parks with permanent residents are required to gain registrable or individual exemptions regardless of the number of customers or size of the network; and
2. for those jurisdictions which have regulatory arrangements which allow for access to retail market offers (currently Victoria, South Australia and NSW), if an embedded network customer seeks access to a retail market offer, an existing deemed exemption becomes registrable, even if the embedded network is small and has less than ten customers.

AEMO's proposal would give the AER some discretion over which embedded network operators would be required to appoint an embedded network manager. The AER would not be able to require an embedded network operator to appoint an embedded network manager through the terms and conditions of the embedded network

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<sup>67</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.4.

operator's exemption. Instead, it would need to change the embedded network operator's exemption from deemed to registrable to require appointment of an embedded network manager.

### 5.3.2 Submissions

Submissions highlighted that the threshold for appointing an embedded network manager is one of the key issues and was the focus of many submissions.

A wide range of views regarding AEMO's proposed threshold were expressed, including proposals for both a higher and lower threshold.

A number of stakeholders, including retailers, embedded network operators and metering providers supported AEMO's proposed threshold. They considered that it provides an appropriate balance between regulatory burden and access to embedded network management services by requiring larger embedded network operators to appoint an embedded network manager but not requiring small embedded network operators to do so until a customer within the network seeks access to a retail market offer.<sup>68</sup>

DNSPs generally considered that the threshold should be lower. For example, Jemena stated that there was no reason why any embedded network customer should face a higher barrier to access retail market offers than other customers and therefore all embedded network operators (including those eligible for deemed exemptions) should be required to appoint an embedded network manager.<sup>69</sup>

While generally considering that the proposed threshold was appropriate, a number of stakeholders were concerned that it would require an embedded network manager to be appointed even where the customers would not seek to go on-market or are prevented from going on-market. For example, Strata Community Australia (Queensland) highlighted that under the proposed rule its members would be required to appoint, and bear the cost of appointing, an embedded network manager although there would be no benefit because under state policy embedded network customers in Queensland cannot access retail market offers.<sup>70</sup>

In addition, some embedded network operators opposed being required to appoint an embedded network manager even when a customer seeks to go on-market. For example, the CCIA considered that the requirement would mean that an embedded network operator would be faced with a potentially large compliance cost to manage just one on-market customer.<sup>71</sup>

Under the draft rule embedded network operators would be required to appoint an embedded network manager unless:

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<sup>68</sup> For example, submissions from: Origin Energy, 2 July 2015, p.3; Network Energy Services, 29 June 2015, p.2; and Metropolis Metering, 21 May 2015, p.2.

<sup>69</sup> Jemena submission, 2 July 2015, p.9.

<sup>70</sup> Strata Community Australia (Queensland) submission, 2 July 2015, p.3.

<sup>71</sup> CCIA submission, 1 July 2015, p.7

- all of the embedded network customers will not be able to gain access to a retail market offer even if an embedded network manager is appointed (for example, in a jurisdiction that does not allow for retail contestability in embedded networks); or
- the AER considers that the costs of appointing an embedded network manager are likely to outweigh the benefits.

Further, where the AER determined that an embedded network operator is not initially required to appoint an embedded network manager, it would still be required to do so if a customer within the network exercised its right to access a retail market offer.

Submissions from the AER, DNSPs, retailers and metering providers supported the threshold proposed in the draft rule.<sup>72</sup> For example, AGL Energy considered:<sup>73</sup>

“AGL also agree with the AEMC’s position, that the Draft Determination is a more preferable rule change, due to the increased flexibility provided to the AER in determining which embedded networks should be required to appoint embedded network managers. Specifically we believe that embedded network manager mandatory appointment will be cost efficient and increase retail competition for larger embedded networks or for an embedded network operator with multiple sites such as shopping centres, sizable apartment complexes or office buildings. However, we do not consider that small embedded networks should be forced to appoint an embedded network manager, particularly where the costs of the appointment will outweigh the benefits. We therefore welcome the Draft Determination’s guidance to the AER to enforce the embedded network manager role on a case by case basis.”

The AER also noted that:<sup>74</sup>

“the AEMC has asked in our revision of the guideline that the AER consider for the various network exemption categories and classes whether an embedded network manager should be appointed. We believe this is desirable. We note that a number of respondents to your consultation raised concerns whether, in their circumstances, they should be required to appoint an embedded network manager. We consider for some network exemption classes is unnecessary (eg rail networks, mining and primary production). Further, in other classes (small networks, retirement homes, community based schemes, etc) the benefits of the embedded network manager role may not be economically justified. We would address this issue as part of our broader consultation.”

While supporting the enhanced flexibility provided in the draft rule, and noting that some of these issues are most appropriately addressed in the AER's network

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<sup>72</sup> For example, submissions from: AER, 29 October 2015, p.1; ENA, 22 October 2015, p.1; Origin Energy, 22 October 2015, p.2; and Metropolis Metering, 22 October 2015, p.2.

<sup>73</sup> AGL Energy submission, 22 October 2015, p.2.

<sup>74</sup> AER submission, 29 October 2015, p.1.

exemption guideline, the CCIA suggested that additional issues be taken into consideration, including:<sup>75</sup>

- establishment of a formal process to ensure that a customer's exercise of a right to access a retail market offer is a bona fide act;
- development of clear factors that the AER must consider when determining the costs compared to the benefits of appointing an embedded network manager, including any circumstances unique to a particular embedded network;
- embedded network operators be given a chance to make submissions to the AER and for those submissions to be taken into account; and
- a process to deal with instances where a customer changes their mind about going on-market or an on-market customer reverts to an off-market customer.

The Victorian Caravan Parks Association (VCPA) opposed any threshold that would result in Victorian caravan parks being required to appoint an embedded network manager. The VCPA considered that while there may be an argument for the introduction of embedded network managers in other commercial environments to better regulate selling of electricity and protect customers in those environments, the draft rule is not workable in caravan park operations. The VCPA considered that:<sup>76</sup>

- the impact of any proposed increase in the existing levels of regulation of the supply of electricity to customers in caravan parks could impact future supply of both tourist and residential accommodation;
- the caravan park industry is highly-regulated and is currently working co-operatively with the CFA and the Department of Transport, Planning, Lands and Infrastructure to review and reduce current levels of burdensome regulation;
- it is neither appropriate nor justifiable to impose further licensing regulations for the supply of a service to caravan park customers that is incidental and not central to the caravan park business; and
- to date these embedded networks have operated adequately under General Exemption Orders and there is no demonstrated rationale in the draft determination to advocate for any change.

### **5.3.3 Commission's analysis**

#### **Policy position**

The Commission has concluded that there are significant benefits from allowing embedded network customers access to retail market offers and that smooth access to retail market offers requires an embedded network manager for the respective

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<sup>75</sup> CCIA submission, 22 October 2015, p.2.

<sup>76</sup> VCPA submission, 23 October 2015, p.1.

embedded network.<sup>77</sup> As such, all embedded network customers should have the right to access retail market offers and to facilitate this, embedded network operators should be required to appoint an embedded network manager.

However, there will be a number of embedded networks where appointment of an embedded network manager would serve no purpose and therefore should not be required. For example, embedded networks in jurisdictions which do not allow customers access to retail market offers (currently Queensland, Tasmania and the ACT).

There are also some embedded networks where the benefits of appointing an embedded network manager before a customer seeks to go on-market are likely to be less than the costs. For example, an embedded network with only two customers is less likely to have a customer seek to go on-market than an embedded network with one hundred customers and therefore the potential benefits of appointing an embedded network manager may be smaller. In these situations embedded network operators should not be required to appoint an embedded network operator before a customer seeks to go on-market.

However, if a customer does exercise its right to access a retail market offer, then this should trigger the appointment of an embedded network manager as there will be a benefit to that customer and any others that may follow. This will result in a delay for customers in such embedded networks in accessing a retail market offer because they will have to wait for an embedded network manager to be appointed. For this reason, this approach should not be the default position for all embedded networks.

This policy position requires embedded network operators to appoint and pay for an embedded network manager when a single customer or small number of customers exercise their right to access a retail market offer.<sup>78</sup> This is essential to reduce the barriers to all embedded network customers (in jurisdictions which allow access to retail market offers) accessing, and therefore receiving the benefits of, access to retail market offers. This will also enhance regulatory certainty and decrease costs substantially because every embedded network with an on-market embedded network customer will have an embedded network manager. This removes the need for a separate set of regulatory arrangements for on-market customers without an embedded network manager.

## **Final rule**

The detailed assessment required to determine whether each specific type of embedded network operator should appoint an embedded network manager under the above framework is considerable. It also needs to be flexible, taking into account the particular circumstances of the embedded network, policy and market developments at any point in time. For this reason, it is most appropriately addressed in the AER's network exemption guideline, not directly in the NER. This will allow the

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<sup>77</sup> As set out in Chapter 3 and section 5.1.

<sup>78</sup> Embedded network operators also have the option of gaining accreditation from AEMO and performing the services themselves.

AER to adjust which embedded network operators are required to appoint an embedded network manager based on the specific circumstances of the embedded network operator and embedded network customers. For example:

- when considering the costs and benefits of appointment of an embedded network manager the AER will be able to take into account the number of customers in the embedded network and the likely cost of appointing an embedded network manager in that area; and
- whether customers within the network will be able to gain access to retail market offers if an embedded network manager is appointed may depend on jurisdictional regulations in place.

However, the Commission considers that the AER's discretion regarding the determination of the exemption should be guided to reflect the above policy positions. The final rule therefore deems network exemptions to be subject to a new condition that the embedded network operator must appoint an embedded network manager unless:

- the embedded network customers are unable to gain access to a retail market offer in a relevant jurisdiction; or
- if the AER determines the costs of appointing an embedded network manager are likely to outweigh the benefits. In these cases the AER must require an embedded network manager to be appointed when a customer exercises its right to access a retail market offer.<sup>79</sup>

In the latter case where the requirement to appoint an embedded network manager will be triggered by a customer exercising its right to access to a choice of retailer, it is expected the AER will specify the timeframe for the appointment of an embedded network manager to occur in its conditions to the network exemption.

The Commission considers that this approach has a number of advantages:

1. all customers in jurisdictions that allow access to retail market offers that seek a retail market offer will have access facilitated by an embedded network manager;
2. embedded network operators in jurisdictions that do not allow access to retail market offers, or with customers which are not potential market customers, will not bear the cost of appointing an embedded network manager;
3. embedded network operators operating embedded networks where the likelihood of customers seeking to go on-market is low will not be required to bear the costs unless a customer seeks to go on-market; and
4. providing the AER with discretion to set the threshold will allow flexibility to adjust to evolutions in embedded networks.

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<sup>79</sup> Under the final rule, to 'exercise a right to access a retail market offer' a small customer must enter a market retail contract and the cooling off period in relation to that contract must expire. For a large customer, the customer must enter a contract for the sale of energy.

### *Changes from draft to final*

CCIA suggested that a formal process be established to ensure that a customer's exercise of a right to access a retail market offer is a bona fide act. While a formal process to establish this is not necessary, the Commission considers that further clarity is needed over what 'exercising a right to a choice of retailer' means and what the test is for when an embedded network manager must be appointed in these circumstances.

The final rule therefore adjusts the draft rule by requiring that an embedded network manager must be appointed when:

- in relation to a small customer, it enters a market retail contract and the cooling off period in relation to that contract has expired; and
- in relation to a large customer, it enters a contract for the sale of energy.

### **Commission's analysis of issues raised by the CCIA and VCPA**

The CCIA raised a number of important issues regarding how the AER will determine the threshold for the appointment of embedded network managers in its network exemption guideline. The Commission considers that these issues are most appropriately addressed in the AER guideline and that the final rule provides the AER with appropriate guidance to do so. Specifically:

- embedded network operators will have the opportunity to make submissions to the AER and for those submissions to be taken into account in the development of the network exemption guideline. Under the rules consultation procedures the AER is required to consult with stakeholders when developing guidelines. This specifically includes requirements that the AER must request submissions and address each submission;<sup>80</sup>
- the AER has discretion to set provisions in the network exemption guideline regarding situations where all of the embedded network customers that are on-market revert to off-market. For example, the AER could specify that if the embedded network operator was not required to appoint an embedded network manager until a customer went on-market, then it is not required to do so if all customers revert to off-market status;
- clear factors are not needed for the AER to take into account when determining the costs and benefits of appointment of an embedded network manager. Similar to the other terms and conditions that the AER places on embedded network operators through the network exemption guideline, the AER will be required to assess the costs and benefits in accordance with the NEO; and
- the AER will be able to take into account the circumstances of specific embedded networks and specific types of embedded networks in amending its network exemption guideline. As noted above, this is one of the key benefits of the

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<sup>80</sup> NER, clause 8.9(j).

assessment of the costs and benefits occurring in the guideline rather than the NER.

The final rule does not adopt the VCPA's suggestion that embedded network operators in Victorian caravan parks should not be required to appoint an embedded network manager under any circumstances. Chapter 3 and section 5.1 of this final rule determination set out that the benefits of embedded network customers being able to access retail market offers are likely to be substantial and that these benefits are only likely to be achieved if an embedded network manager is appointed. To allow these benefits to be achieved and minimise unnecessary compliance costs, the final rule provides for the AER to allow embedded network managers to not be appointed in circumstances where the costs are likely to exceed the benefits. The Commission considers that this framework for determining when an embedded network manager is required to be appointed is robust for all types of embedded networks in all jurisdictions. It should therefore apply to caravan parks in Victoria.

## **5.4 The embedded network manager market**

### **5.4.1 AEMO proposal**

AEMO proposed to facilitate an open market for embedded network management services by allowing any party that meets the accreditation requirements to provide embedded network management services. AEMO considered this would have a number of benefits, including:<sup>81</sup>

- it would create a competitive market framework for embedded network management services, thereby allowing embedded network operators to choose the lowest cost provider of embedded network management services;
- allowing a wide range of parties to provide the services, including embedded network operators themselves, retailers and DNSPs; and
- assurance through an AEMO accreditation process of the capability of the parties to provide the services.

AEMO anticipated that a number of the existing embedded network operator businesses will become accredited as embedded network managers and offer to carry out embedded network management services for other embedded network operators. AEMO considered that many embedded network operators would either have, or could readily develop, the skills and systems required to undertake the specified tasks without major additional costs. AEMO also considered that existing market participants such as retailers and DNSPs may also seek to provide embedded network management services.<sup>82</sup>

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81 AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.10.

82 *ibid.*

To assist embedded network operators in appointing an embedded network manager AEMO proposed to maintain a list of accredited embedded network managers on its website.<sup>83</sup>

#### **5.4.2 Submissions**

Consultation paper submissions indicated strong support for the open competitive market framework proposed by AEMO. Stakeholders considered that there are a number of likely providers of embedded network management services. For example, AusNet Services considered that niche retailers (specialising in embedded network service provision), some large retailers, embedded network operators and some network service providers are likely to be able to provide embedded network management services.<sup>84</sup>

Several submissions anticipated a problem if no embedded network manager is available for an embedded network operator to appoint. To overcome this, the Shopping Centre Council of Australia suggested there may be merit in requiring DNSPs to provide the services at a regulated rate as a "fallback" option.<sup>85</sup>

The draft rule adopted AEMO's proposed open market for embedded network management services.

In general, submissions to the draft rule determination did not address the open market framework. However, Living Utilities made a number of suggestions for transitional provisions for the embedded network management market which if adopted would provide restrictions on the open market framework.<sup>86</sup> These are addressed in Chapter 8 of this final rule determination.

#### **5.4.3 Commission's analysis**

AEMO's proposed market for embedded network management should result in the efficient provision of embedded network management services. Notably:

- allowing interested parties to compete to provide embedded network management services should provide incentives to decrease cost, lower prices and provide high quality services;
- AEMO's accreditation and monitoring processes should provide for minimum service standards to be met by all providers;
- embedded network operators should benefit from being able to choose the embedded network manager that suits them best, including the option of gaining accreditation themselves; and

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83 *ibid.*

84 AusNet Services submission, 2 July 2015, p.8.

85 Shopping Centre Council of Australia submission, July 2015, p.12.

86 Living Utilities submission, 5 November 2015, p.2.

- the requirement for AEMO to keep a list of accredited embedded network managers will result in a transparent market.

The Commission considers that a default arrangement, as suggested by the Shopping Centre Council of Australia would result in significant costs because the AER would need to undertake detailed assessment of the costs of providing the services for each DNSP throughout the NEM. Furthermore, the Commission does not consider that a default embedded network manager is necessary because the prospects of a competitive market for embedded network management services are strong. This is because:

- embedded network management services exhibit low barriers to entry for suppliers because the only requirement is to gain accreditation under AEMO's embedded network management procedures;
- there are a large number of potential providers that already have the skill sets to provide embedded network management services, including DNSPs, retailers, embedded network operators and metering data providers; and
- there are a number of parties that have an incentive to supply embedded network management services. For example, retailers seeking to provide retail services to embedded network customers could establish relationships with embedded network customers through the embedded network manager role and embedded network operator businesses seeking to operate more embedded networks could build relationships with embedded network owners.

For these reasons, the final rule provides for any party who is able to satisfy the relevant criteria (set out in Appendix C) to become an embedded network manager. The Commission is satisfied that this open policy will result in a workably competitive market for embedded network management services and that the creation of a regulatory framework to apply to DNSPs will not be necessary.

## **6 Jurisdictional regulations and the network exemption guideline**

This chapter sets out the Commission's analysis of AEMO's recommended changes to jurisdictional regulations and the AER's network exemption guideline to allow embedded network customers easier access to retail market offers. Stakeholders also raised a number of other possible changes to the network exemption guideline and these are discussed.

### **6.1 Recommended changes to jurisdictional regulations**

#### **6.1.1 AEMO proposal**

AEMO considered that with the introduction of the embedded network manager role, and changes to the AER's network exemption guideline, the jurisdictional regulations in Queensland, Tasmania and the ACT which currently prevent customers choosing a registered retailer should be relaxed. AEMO also considers that harmonisation of the regulations in jurisdictions which already permit retailer choice would increase the benefits arising from making the proposed rule.<sup>87</sup>

#### **6.1.2 Submissions**

Submissions to the consultation paper generally did not focus on changes to the jurisdictional regulations relating to embedded network customer access to retail market offers.

In the draft rule determination the Commission recommended removing the jurisdictional regulations in Tasmania, Queensland and the ACT and harmonising the jurisdictional regulations in NSW, South Australia and Victoria.

The ERAA, EnergyAustralia and Metropolis Metering supported these recommendations.<sup>88</sup>

#### **6.1.3 Commission's analysis**

The jurisdictional regulations that influence embedded network customers' access to retail market offers are set out in detail in Appendix E. However, the Commission has no power to change these regulations.

Jurisdictional regulations that prevent customers accessing retail market offers in embedded networks should be removed in Queensland, Tasmania and the ACT. Furthermore, the jurisdictional regulations in Victoria, South Australia and New South Wales should be harmonised to provide a clearer and simpler system for all

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<sup>87</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.4.

<sup>88</sup> Submissions from: EnergyAustralia, 22 October 2015, p.4; ERAA, 22 October 2015, p.1; and Metropolis Metering, 22 October 2015, p.2.

stakeholders. These changes would support the final rule and result in the benefits of the final rule being more widely available. For these reasons, the Commission recommends that jurisdictional governments make the required adjustments to their instruments in time for the commencement of the rule on 1 December 2017.

## **6.2 Recommended changes to the network exemption guideline**

In this section the Commission makes a number of recommendations in relation to possible changes to the AER's network exemption guideline. The Commission notes that under s. 13 of the NEL, the AER has the power to grant an exemption, subject to the NER and on whatever terms and conditions it consider appropriate, in accordance with the NER. It is implicit in the NER that the AER will develop guidelines in relation to the granting of these exemptions. The NER requires the granting of these exemptions to be in accordance with such guidelines.

The current network exemption guideline is extensive. It outlines the various classes and kinds of network exemptions available, general requirements for a large number of possible conditions to an exemption and covers a very broad range of embedded networks. With this in mind, the Commission does not consider it appropriate, in relation to the issues discussed in this section, to include provisions in the NER that would direct the AER in relation to either the amendment of these guidelines, or otherwise guide its discretion in relation to them. Nevertheless, there are particular issues regarding the network exemption guideline and the operation of embedded networks which have been raised by AEMO and which the Commission makes recommendations in relation to.

### **6.2.1 Comparability of offers**

#### **AEMO proposal**

AEMO recommended that the AER amend its network exemption guideline to require all embedded network operators to unbundle retail bills into network and energy charges. AEMO considered this would allow embedded network customers to compare offers from retailers and embedded network operators.<sup>89</sup>

#### **Submissions**

Submissions varied on this issue substantially.

The Shopping Centre Council of Australia (SCCA) considered that compulsory unbundling of bills would increase the complexity of offers and result in increased customer confusion. It also considered that this requirement would be inconsistent with requirements relating to bills for customers outside of embedded networks.<sup>90</sup>

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<sup>89</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.12.

<sup>90</sup> Shopping Centre Council of Australia submission, 2 July 2015, p.11.

The Consumer Utilities Advocacy Centre (CUAC) supported AEMO's proposal, and considered that it would help customers compare offers from authorised retailers and embedded network operators, and provide greater transparency of network charges from energy charges.<sup>91</sup>

Retailers highlighted that while unbundling may provide benefits in some cases, it would be unnecessary and confusing in others. For example, Origin Energy noted that in many cases embedded network operators will bill the retailer directly for network costs and the retailer bills the customer a bundled charge for network and energy services, avoiding the need to unbundle bills for the customer.<sup>92</sup>

In the draft rule determination, the Commission recommended that embedded network operators be required to provide unbundled retail prices on request from either a retailer or a customer to allow embedded network customers to compare offers from retailers and embedded network operators.<sup>93</sup>

EnergyAustralia and the ENA supported this recommendation in the draft rule determination.<sup>94</sup> EnergyAustralia considered that if implemented it would avoid the cost to embedded network operators of unbundling all offers for all customers in all embedded networks and would also allow a customer to perform a suitable comparison of both on and off-market offers when required. It would also avoid any changes and possible confusion for existing customers that are familiar with their current billing arrangements.<sup>95</sup>

However, ERM Power preferred AEMO's proposal to the position in the draft rule determination. It considered that the Commission's proposal would not address the core issue of providing customers with enough information to easily compare offers from embedded network operators and retailers. ERM Power submitted that this would put embedded network customers at a disadvantage to other customers because switching to a retailer would be more difficult because they would likely require more than one phone call with a retailer to switch.<sup>96</sup>

The CCIA sought further clarity over exactly what an embedded network operator would be required to do under the recommendation in the draft rule determination.<sup>97</sup>

### **Commission's analysis**

To assess whether unbundling of bills is necessary, it is important to understand the two ways that embedded network customers can be provided retail services by authorised retailers. The first is that the retailer comes to an agreement with the embedded network operator for the embedded network operator to charge it for

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91 CUAC submission, 2 July 2015, p.4.

92 Origin Energy submission, 2 July 2015, p.5

93 AEMC, Embedded Networks, Draft Rule Determination, 10 September 2015, p.48.

94 EnergyAustralia submission, 22 October 2015, p.4 and ENA submission, 22 October 2015, p.1.

95 EnergyAustralia submission, 22 October 2015, p.4.

96 ERM Power submission, 22 October 2015, p.3.

97 CCIA submission, 22 October 2015, p.4.

network services. The retailer then bills the customer for network and energy services. The second method is that the customer pays two separate bills, one to the embedded network operator for network services and one to the retailer for energy services.<sup>98</sup>

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

AEMO's proposal of compulsory unbundling of all embedded network operators' bills would solve this problem because both retailers and customers would have the required information. A potential retailer could make an offer based on either an energy only service or the energy and network bundled service.

However, AEMO's solution would require unbundling for every embedded network customer in the NEM. This would include customers within embedded networks which are already on-market, embedded networks where no customer is seeking to go on-market and embedded networks where customers have no ability to go on-market (currently in Queensland, Tasmania and the ACT). It would also be confusing and unnecessary for customers under the first arrangement where they can simply compare the bundled charge from the embedded network operator and retailer.

The alternative solution that the Commission recommends is to require embedded network operators to provide information regarding the unbundled prices on request from either a customer or a retailer that the customer is seeking an offer from. This will allow any customer seeking to go on-market to compare offers from embedded network operators and retailers but will not incur the cost of compulsory unbundling being applied to all embedded network operators regardless of circumstance. Nor will it result in confusion for customers where the first method occurs.

To achieve this, the Commission recommends the AER consider including a requirement in its network exemption guideline that embedded network operators provide information regarding the unbundled prices when requested to do so by either a customer or a retailer that the customer is seeking an offer from. For clarity, if this recommendation is implemented, it would not require the embedded network operator to provide bills on an unbundled basis. Rather, the embedded network operator would be required to provide the customer or retailer with the split of its retail prices between network and energy components when requested to do so.

The Commission notes ERM Power's concern that this will create a delay and inconvenience for embedded network customers going on-market because they will

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<sup>98</sup> As set out in section 1.2.3, under the AER's network exemption guideline embedded network operators are not permitted to charge for provision of the embedded network. Network service charges to embedded network customers therefore only relate to the embedded network operator recovering network charges from the parent connection point.

not automatically have the information to compare a retailer's offer to that of an embedded network operator. The Commission acknowledges that its recommended approach may result in some delay for a customer seeking access to a retail market offer. However, requiring compulsory unbundling would result in greater detriments than benefits because:

- the cost of unbundling all embedded network operators' bills in the NEM is likely to be large and is not necessary for many embedded network customers;
- unbundling of bills for customers may cause confusion. This is particularly the case in situations where retailers have come to an agreement with embedded network operators to bill the customer a bundled charge for network and retail services; and
- the benefits of automatic unbundling are not likely to be significant because there is likely to be a delay for embedded network customers seeking to go on-market even if their bills are unbundled due to the retailer needing to seek information regarding the metering within the embedded network before being able to make an offer.

For these reasons, the Commission is satisfied that its recommendation is a more preferable solution.

## **6.2.2 Meter reading, testing and inspection standards**

### **AEMO proposal**

AEMO's rule change request compares the current metering regulation for customers outside of embedded networks, on-market embedded network customers and off-market embedded network customers. Table 1 displays this comparison.

**Table 6.1 Current metering requirements**

<b>Metering requirements</b>	<b>Pattern approved and verified</b>	<b>Meter accuracy</b>	<b>Routine testing and inspection</b>
Customers outside of embedded networks	National metering institute	NER, Clause 7.6, Schedule 7.2	NER, Clause 7.6, Schedule 7.3
On-market embedded network customer	National metering institute	NER, Clause 7.6, Schedule 7.2	NER, Clause 7.6, Schedule 7.3
Off-market embedded network customer	National metering institute (through the network exemption guideline)	NER, Schedule 7.2 (through the network exemption guideline)	No requirement

Source: AEMO, Embedded Networks rule change request – Detailed market design, 8 August 2014, p.22.

AEMO proposed that the AER should amend the network exemption guideline to require that embedded network operators to meet the testing and inspection requirement of Schedule 7.3 of the NER and thus align the standards for off-market customers.<sup>99</sup> AEMO considered that this would decrease the barriers to embedded network customers accessing retail market offers by increasing the likelihood that the metering within embedded networks meets the NEM standard. This would decrease the likelihood that a replacement meter is required when a customer seeks to go on-market.

### **Submissions**

Submissions from DNSPs, retailers and the Electricity and the Water Ombudsman of NSW (EWON) supported AEMO's proposal to increase the off-market meter reading, testing and inspection standards.<sup>100</sup> EWON stated that:

“In principle EWON supports the proposal that the AER should require the same routine testing and inspection of off-market child meters as for those customers directly connected to a registered NSP’s network. EWON’s investigation of complaints from customers in some of the older residential parks identified several examples of unorthodox meters – eg purchased by the park owner in a second-hand auction sale, or operated by tokens. The lack of a clear inspection and testing regime resulted in the customer having to source a private contractor to carry out the testing at their own expense.”

ERM Power also noted that meter standards are not just an issue of a barrier to access to retail market offers. It considered that where the accuracy of off-market metering installations is not maintained appropriately, the correct level of consumption may not

<sup>99</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.12.

<sup>100</sup> Submissions from: Jemena, 2 July 2015, p.3; ERM Power, 2 July 2015; and EWON, 2 July 2015, p.3.

be recorded. This can result in real cost impacts for the customer using an off-market child and/or the embedded network parent.<sup>101</sup>

In the draft rule determination the Commission recommended the AER consider requiring the same routine reading, testing and inspection standards for off-market customers as for on-market embedded network customers.<sup>102</sup>

Retailers and Metropolis Metering supported the recommendation to require the same routine reading, testing and inspection standards as required for on-market meters.<sup>103</sup> For example, ERM Power stated that:<sup>104</sup>

“ERM Power welcomes the Commission’s draft recommendation that the AER aligns the standards for meter reading, testing and inspections for off-market embedded network customers with the requirements of the NER. This proposal will improve the accuracy and reliability of embedded network customers’ meter readings and electricity bills. It may also reduce the cost barriers associated with metering installation replacement when a customer seeks to become on-market.”

### **Commission's analysis**

As stated in the draft rule determination, all customers should have accurate metering and billing regardless of whether they are inside an embedded network. This may also reduce the barriers to embedded network customers going on-market by decreasing the likelihood that the meter will need to be replaced when a customer seeks to go on-market.

The Commission therefore maintains its recommendation that the AER consider changing the standards for meter testing and inspection for off-market customers by amending the conditions to exemptions in the AER's network guideline so that the conditions match the requirements in the NER.

### **6.2.3 Life support notification**

#### **Draft rule determination**

In the draft rule determination the Commission set out that life support notification requirements must be the responsibility of embedded network operators, not embedded network managers, because an embedded network manager will not be in place for all embedded networks, some of which may have life support customers.<sup>105</sup>

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<sup>101</sup> ERM Power submission, 2 July 2015, p.3.

<sup>102</sup> AEMC, Embedded Networks, Draft Rule Determination, 10 September 2015, p.49.

<sup>103</sup> Submissions from: EnergyAustralia, 22 October 2015, p.4; ERM Power, 22 October 2015, p.3; Origin Energy, 22 October 2015, p.3; and Metropolis Metering, 22 October 2015, p.3.

<sup>104</sup> ERM Power submission, 22 October 2015, p.3.

<sup>105</sup> AEMC, Embedded Networks, Draft Rule Determination, 10 September 2015, p.36.

This position is maintained in this final rule determination and is set out in section 5.1.3.

The Commission also recommended in the draft rule determination that in addition to the current requirement in the network exemption guideline that embedded network operators notify the parent connection point LNSP of life support requirements, the AER consider amending the network exemption guideline to require that embedded network operators notify the child connection point retailer of life support requirements.<sup>106</sup>

## Submissions

Submissions supported the Commission's recommendation that the AER impose a requirement on embedded network operators to inform the child connection point retailer as well as the parent connection point LNSP if it is informed of a life support obligation upon commencement of the final rule.<sup>107</sup>

DNSPs and retailers also suggested that the embedded network operator be required to notify the parent connection point retailer rather than the parent connection point LNSP.<sup>108</sup> These stakeholders considered that while both options will result in the necessary notification, because whichever one is informed will inform the other, the embedded network operator informing the parent connection point retailer is preferable because this would align with the arrangements for customers outside of embedded networks, where the retailer is the receiver of life support notifications, not the LNSP.

## Commission's analysis

Currently under the NER and NERR retailers must arrange for disconnection with the LNSP.

As set out in section 5.1.3, embedded network operators are required, as part of their conditions to exemption, to notify the LNSP of any life support customers within the embedded network. These conditions also prevent an embedded network operator from disconnecting a life support customer.<sup>109</sup> Therefore, life support customers in embedded networks under the current arrangements are 'protected' from disconnection because these obligations prevent disconnection by the only two parties – the LNSP (at the parent connection point) and embedded network operator – that can perform disconnections.

Upon commencement of the Competition in Metering final rule on 1 December 2017:

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<sup>106</sup> AEMC, *Embedded Networks, Draft Rule Determination*, 10 September 2015, p.36.

<sup>107</sup> Submissions from: NSW DNSPs, 22 October 2015, p.3; United Energy, 22 October 2015, p.2; Origin Energy, 22 October 2015, p.4; and CCIA, 22 October 2015, p.4.

<sup>108</sup> Submissions from: NSW DNSPs, 22 October 2015, p.3; United Energy, 22 October 2015, p.2; and Origin Energy, 22 October 2015, p.4.

<sup>109</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.25.

- it will be possible for a retailer to arrange for remote de-energisation without network involvement, that is, through the metering coordinator; and
- LNSPs will be required to advise a retailer that a person residing at the premises requires life support equipment, in addition to the current notification requirements for the retailer to advise the LNSP.

Under these arrangements, when an embedded network operator informs the LNSP of a life support requirement within the embedded network, the LNSP will be required to inform the parent connection point retailer. However, there would be no requirement in the regulatory framework for the retailer of the on-market customer at the child connection point to be informed. As a result, that retailer could potentially arrange for remote disconnection through the metering coordinator without being aware of the existence of the life support customer.

To remove this gap the Commission recommends that the AER consider adding an additional life support notification requirement to the network exemption guideline to require that embedded network operators inform the child connection point retailer when they are informed of life support requirements at a child connection point.

It is also appropriate to align the arrangements for embedded network customers with customers outside of embedded networks where possible and that outside of embedded networks it is industry practice that the retailer receives life support notifications. The Commission therefore recommends that the AER consider replacing the obligation on embedded network operators in the network exemption guideline to inform the parent connection point LNSP with a requirement to inform the parent connection point retailer. The retailer will then be obligated to inform the LNSP.

### **6.3 Other issues regarding the exemption guidelines**

In response to the draft rule determination, a number of stakeholders made suggestions for other changes to the AER's network and retail exemption guidelines.

Stakeholders have raised important issues regarding the regulation of embedded networks following the commencement of this final rule and the Competition in Metering final rule on 1 December 2017. However, the Commission does not consider there is any one solution to any of the issues raised in submissions that could apply to all embedded network operators and networks. Rather, each of these issues requires detailed analysis of the appropriate terms and conditions to apply to the different types and classes of embedded networks and embedded network operators. The AER is best placed to undertake this analysis for each type and class of embedded network and impose the appropriate conditions through its exemption guidelines.

As this is the most appropriate approach to manage these issues, the Commission has set out these issues and stakeholders views to help inform the AER's analysis of these issues, but does not make specific recommendations for changes to the exemption guidelines. Stakeholders will be able to make submissions to the AER regarding these, and any of the above issues during its consultation on the revision to the network exemption guideline in 2016.

### 6.3.1 Metering

A number of submissions recommended changes to the metering arrangements within embedded networks beyond the increase to the meter reading, testing and inspection standards proposed by AEMO and recommended in the draft rule determination. Metropolis Metering and retailers generally considered that the metering standards, providers and processes for metering services should be lifted, and in many cases match the standards included in the Competition in Metering final rule. Embedded network operators considered that the metering standards, providers and processes for metering services should remain as they are, or if any changes are made they should not be funded by embedded network operators. Each of these issues is set out below.

#### Providers of metering services

Metering services for on-market embedded network customers and customers outside of embedded networks are required to be performed by accredited metering providers and metering data providers under the NER and AEMO's guidelines. However, the AER's network exemption guideline does not currently require these services to be undertaken by accredited providers for off-market embedded network customers. Retailers and Metropolis Metering recommended that the AER alter the network exemption guideline to require that metering services for off-market embedded network customers also be undertaken by accredited providers.<sup>110</sup> For example, ERM Power submitted that:<sup>111</sup>

“AEMO-accredited metering service providers that provide metering services to customers outside of embedded networks must meet stringent requirements relating to systems, security, audit, quality, operations, contracts and insurance. These requirements do not apply to metering service providers servicing off-market metering installations under the network exemption guideline. AEMO’s accreditation requirements exist to ensure the safe, secure, and efficient provision of metering services to NEM customers. It is unclear why off-market customers should receive a lower standard of service. The additional costs associated with meeting these requirements means that metering charges incurred by customers may be higher when they use an accredited service provider. This can compromise the viability of an off-market customer choosing to contract with an authorised retailer. ERM Power recommends the AER requires AEMO-accredited metering service providers (or equivalent) to be engaged in relation to off-market meters in embedded networks. ”

#### Minimum specification

The Competition in Metering final rule introduces a minimum services specification into the NER for new and replacement meters for small customers from 1 December

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<sup>110</sup> Submissions from: ERM Power submission, 22 October 2015, p.2; and Metropolis Metering, 22 October 2015, p.3.

<sup>111</sup> ERM Power submission, 22 October 2015, p.2.

2017. The minimum specification requires meters to be capable of providing the following services and connected to a telecommunications network:<sup>112</sup>

- remote disconnection service;
- remote reconnection service;
- remote on-demand meter read service;
- remote scheduled meter read service;
- meter installation inquiry service; and
- advanced meter reconfiguration service.

From 1 December 2017 the minimum specification will apply to meters for small customers outside of embedded networks and on-market embedded network small customers. However, it will not apply for off-market embedded network customers unless the AER adjusts the network exemption guideline to require that some or all embedded network operators meet it in the terms and conditions of the network exemption guideline.

Embedded network operators raised concerns about the cost of upgrading meters to meet the new minimum specification, particularly regarding the potential need to upgrade the parent connection point meter if a child connection point meter is replaced with a new minimum specification meter.<sup>113</sup>

### **Meter transfer incentives**

The incentives for embedded network operators to allow existing meters to be used by a retailer or the retailer's metering service providers when a customer elects to go on-market include:

- an incentive to not allow the existing meter to be used to place a barrier to the customer going on-market and so increasing the chance of keeping the customer as a retail customer;
- an incentive to allow the existing meter to be used to earn revenue and avoid the meter being replaced before the costs of its installation have been recovered; and
- an incentive to develop commercial relationships with retailers and their metering service providers to allow existing meters to be used so that retailers will reciprocate if any customers seek to revert back to being off-market customers (and the barriers to reversion will be reduced).

These are the same incentives faced by retailers and their metering service providers for transfers of customers outside of embedded networks and the Competition in

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<sup>112</sup> AEMC, Expanding competition in metering and related services, Rule Determination, 26 November 2015, p.vii.

<sup>113</sup> Submissions from: CCIA, 22 October 2015, p.2; and SCCA, 22 October 2015, p.2.

Metering final rule does not require retailers to allow meters to be used by other retailers and their metering service providers. Instead, to prevent inefficient meter churn the Competition in Metering framework relies on the last two incentives noted above being stronger than the first. This is expected to arise because the regular exchange of customers between retailers will be likely to result in the cost to retailers of not developing commercial relationships to prevent meter churn being high.

While agreeing that these incentives apply to embedded network operators, Metropolis Metering submitted that the incentives for embedded network operators to cooperate with retailers to allow access to metering installations are asymmetric. Metropolis considered that:

- a customer going from an embedded network operator to a retailer must use an accredited meter provider who is fully compliant with the NER and AEMO's procedures, where as a customer returning to an embedded network operator will have lower requirements under the network exemption guideline. This skews the incentives and market power of the negotiating parties, which is likely to put a higher cost on moving from an embedded network operator to a retailer; and
- for a customer outside of an embedded network that changes retailer, the new retailer has the option of contracting with the original retailers' metering service providers to provide metering services. However, this option is unlikely to exist for an off-market embedded network customer seeking a retail market offer because the embedded network operator is not required to have metering services provided by accredited providers. This is likely to put a higher cost on moving from an embedded network operator to a retailer.

For these reasons Metropolis Metering considered that the full suite of provisions regarding metering, made by the Competition in Metering final rule, should apply to all embedded network customers.<sup>114</sup>

EnergyAustralia submitted that no regulated incentives are required to entice embedded network operators to cooperate with retailers to minimise meter churn. EnergyAustralia considered that competitive market forces will ensure that meter churn is minimised in a similar way as expected for the Competition in Metering arrangements proposed from 1 December 2017 for the national market. Embedded network operators have the incentive of lost revenue if their meter is removed and authorised retailers can avoid the cost to change a meter if a commercial arrangement is negotiated with the embedded network operator.<sup>115</sup>

### **6.3.2 Information provision**

DNSPs, retailers and consumer groups considered that it will be important for the AER's guidelines to clearly set out the information that embedded network operators

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<sup>114</sup> Metropolis Metering submission, 22 October 2015, p.5.

<sup>115</sup> EnergyAustralia submission, 22 October 2015, p.3.

will need to provide to customers regarding embedded network managers and how they affect access to retail market offers.<sup>116</sup> For example, PIAC considered that:

“many customers of certain embedded networks will have no experience of accessing the competitive retail market. In addition, an engaged electricity consumer within an embedded network would know that they are unable to access retail energy markets. PIAC, therefore, submits that the rule change should include a requirement for embedded network operators to let customers know about the rule change and its implications once it comes into effect. Without a requirement for embedded network operators to inform their customers of the change, PIAC believes there is a risk that customers will not realise that they can now access the competitive market. This is particularly true as, without a requirement that they do so, embedded network operators have a clear incentive not to inform their customers of the changes (because they will potentially lose retail customers).”

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<sup>116</sup> For example submissions from: Jemena, 2 July 2015, p.8; Origin Energy, 2 July 2015, p.5; and the Public Utilities Advocacy Centre (PIAC), 2 July 2015, p.2.

## 7 NERR issues

The rule change request was made under the NEL and set out proposed changes to the NER. It did not propose any changes to the NERR.

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

The NERL and NERR are designed on the basis of the tripartite relationship that typically exists between a customer, its retailer and its LNSP. This relationship does not exist for embedded network customers because there is no LNSP at the child connection point. Instead there is an embedded network operator. This different circumstance raises a range of retail market issues that require consideration and possible changes to the NERR, and potentially the NERL. For example, the obligations on retailers regarding the content of bills, de-energisation and re-energisation and how tariffs and charges are to be presented in contracts.

Under s. 91B of the NEL, the Commission has the power to make, in relation to AEMO's request:

- 'necessary or consequential' rules under the NEL; and
- 'corresponding' rules under either the National Gas Law (NGL) and the NERL.

Therefore, in order to consider and make changes to the NERR, the Commission is limited by its rule making powers to only making those changes that are corresponding.<sup>117</sup> The nature of the likely and relevant retail issues arising are such that the Commission does not consider that such changes are corresponding and so does not have the power to make any necessary changes to the NERR to address them as part of this final rule. Further information on these issues and relevant matters for consideration are set out in Appendix F.

In the draft rule determination the Commission sought stakeholders' views on these issues, their ramifications and the importance or significance of addressing them. Retailers, DNSPs and consumer groups submitted that these issues are substantial, that they need to be addressed, and that further investigation and analysis is required to develop appropriate solutions.<sup>118</sup>

The Commission considers that analysis and consultation is required to identify all of the NERR issues and the most appropriate solutions related to on-market embedded network customers. Also, addressing some of the issues raised by stakeholders could potentially require amendments to the NERL. The Commission therefore recommends

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<sup>117</sup> While the precise nature of 'corresponding' is not defined in the NEL, it suggests that for any changes to the NERR to be within power, the changes would need to be equivalent to those being made under the NER.

<sup>118</sup> Submissions from: ERAA, 22 October 2015, p.1; AGL Energy, 22 October 2015, p.3; EnergyAustralia, 22 October 2015, p.2; Origin Energy, 22 October 2015, p.4; United Energy, 22 October 2015, p.3; and SACOSS, 22 October 2015, p.1.

that the COAG Energy Council request the Commission to undertake a review of the NERL and NERR to identify and assess the issues regarding the arrangements for embedded network customers. Such a review would then inform the preparation of a NERR rule change request regarding embedded networks.

In the course of this rule change process stakeholders have also identified other problems with the regulatory arrangements for embedded networks. Some of these issues relate to the NERL and NERR, while others relate to jurisdictional instruments, the NEL, the NGL and NGR. Broader issues regarding embedded networks have also been raised in submissions to the Commission's annual retail competition reviews and in reports by consumer groups. These broader issues regarding embedded networks include:

- issues with the two tiered regulatory system of registered NSP/authorised retailer and exempt NSP/exempt retailer;<sup>119</sup>
- issues regarding gas embedded networks;<sup>120</sup>
- the potential for lesser consumer protections for off-market embedded network customers and problems accessing hardship schemes and ombudsman services;<sup>121</sup> and
- research undertaken by consumer groups surveying the experience, outcomes and problems consumers within embedded networks experience.<sup>122</sup>

The Commission recommends that the COAG Energy Council consider whether the AEMC review of the regulatory arrangements within the NERL and NERR for embedded networks should also consider, and provide recommended solutions to, the broader embedded network issues noted above. Given the interrelated nature of many of the issues, the Commission considers that a broader review may be appropriate.

These issues noted above are longstanding issues and do not arise because of the amendments made by this final rule. Further, these issues are beyond the scope of the rule change request.

The Commission notes that there is some overlap between these issues and the issues that COAG Energy Council officials are considering in their work on the regulation of new products and services in the electricity market<sup>123</sup> and the appropriateness of existing consumer protections<sup>124</sup> and some of these issues may also be considered as part of that broader work. Any review of these issues by the Commission should

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119 Jemena submission, 2 July 2015, p.5.

120 Jemena submission, 2 July 2015, p.5.

121 CUAC submission, 25 June 2015, p.1.

122 See, for example, CUAC, *Growing gaps: Consumer protections and energy re-sellers*, December 2012, p.4.

123 See: <http://www.scer.gov.au/workstreams/energy-market-reform/demand-side-participation/new-products-and-services-in-the-electricity-market/>

124 See: <https://scer.govspace.gov.au/files/2014/05/Energy-Council-Communique-4-Dec-2015-FINAL.pdf>

commence in mid-2016, which would allow the Commission to consider any recommendations from officials' broader work on the regulation of new products and services and consumer protections.

## 8 Timing and implementation

This chapter sets out the Commission's implementation schedule and transitional provisions. It includes:

- AEMO's proposed transitional provisions;
- a summary of submissions on AEMO's proposal and the Commission's draft rule determination; and
- the Commission's implementation schedule and transitional provisions.

### 8.1 AEMO proposal

#### 8.1.1 Coordination with Power of Choice projects

AEMO did not provide a timeframe for implementation of the proposed rule. However, it considered that there are potential synergies in the timing of implementing the proposed changes with other changes arising out of the Power of Choice review, particularly in relation to how these might be related to the costs of software systems changes.<sup>125</sup>

#### 8.1.2 Grandfathering

AEMO proposed that existing embedded network operators with registrable or individual exemptions be allowed two years from the commencement of the rule to appoint an embedded network manager. This would provide existing embedded network operators sufficient time to budget any additional costs, undertake a tender process to appoint an embedded network manager or develop the systems and expertise to be accredited as an embedded network manager themselves.<sup>126</sup>

#### 8.1.3 Deeming of embedded network managers

AEMO included a provision in the proposed rule to ensure that there would be embedded network managers available at the commencement date of the rule. For six months from that date, existing market customers (for example, retailers) and NSPs who notify AEMO that they wish to be embedded network managers would be deemed to be embedded network managers.<sup>127</sup> Other interested parties would be subject to AEMO's accreditation process to become embedded network managers.

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125 AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.20.

126 *ibid.* p.13.

127 *ibid.*

## 8.2 Submissions

### 8.2.1 Coordination with Power of Choice projects

Submissions from retailers, DNSPs and metering providers supported a coordinated approach to implementation of the Power of Choice projects and noted that this could result in substantial implementation cost savings.<sup>128</sup> AusNet Services stated:<sup>129</sup>

“there are synergies available in implementing the Embedded Network rules change co-incident with the Expanding Competition in Metering rule change. Both rule changes affect the role assignment in MSATS and B2B Procedures and have similarities in system and process changes. This allows the alignment of the procedure development, consultation, build packs, IT development, and test phases in the most cost effective implementation. Aligning the changes will likely save millions of dollars across the industry.”

The Commission set out an implementation schedule in the draft rule which aligned closely with the implementation of the Competition in Metering final rule, including a commencement date of 1 December 2017.

DNSPs, retailers and Metropolis Metering supported the coordinated approach to implementing the Power of Choice projects.<sup>130</sup> However, retailers and Metropolis Metering considered that it is vital that the Competition in Metering reforms not be delayed and that if the coordinated approach was to result in a delay to any project, the embedded networks implementation should be delayed to allow on time (1 December 2017) delivery of the Competition in Metering final rule.<sup>131</sup>

### 8.2.2 Grandfathering

Embedded network operators, retailers and DNSPs considered that there is a need for existing embedded network operators to have time to adjust to changes from the final rule before they are required to appoint an embedded network manager.<sup>132</sup> However, retailers, DNSPs and consumer groups stated a preference for a shorter time from the implementation date because the two year period proposed by AEMO would lead to delays in the benefits of the rule change being realised.<sup>133</sup>

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<sup>128</sup> Submissions from: Origin Energy, 2 July 2015, p.4; AusNet Services, 2 July 2015, p.14; and Metropolis Metering, 21 May 2015, p.3.

<sup>129</sup> AusNet Services, 2 July 2015, p.14.

<sup>130</sup> Submissions from: ENA, 22 October 2015, p.3; Metropolis Metering, 22 October 2015, p.3; and Origin Energy, 22 October 2015, p.1; EnergyAustralia, 22 October 2015.

<sup>131</sup> Submissions from: Metropolis Metering, 22 October 2015, p.3; and Origin Energy, 22 October 2015, p.1; EnergyAustralia, 22 October 2015.

<sup>132</sup> Submissions from: Network Energy Service, 29 June 2015, p.3; AGL Energy, 2 July 2015 p.5; and United Energy, 2 July 2015, p.8.

<sup>133</sup> Submissions from: AGL Energy, 2 July 2015 p.5; Jemena, 2 July 2015, p.10; and CUAC, 26 June 2015, p.5.

The proposed grandfathering provisions were not adopted in the draft rule. Instead, provision for embedded network operators to adjust to the new arrangements was achieved by specifying a commencement of 1 December 2017 for the final rule. The effect would be a period of approximately two years between publication and commencement of the final rule.

Submissions from embedded network operators, retailers, and Metropolis Metering supported the draft rule implementation schedule and the removal of the grandfathering provisions.<sup>134</sup>

### **8.2.3 Deeming of embedded network managers**

The SA Department of State Development, Metropolis Metering and CUAC opposed AEMO's proposed deeming provisions. These stakeholders considered that the provisions would create an uneven playing field in the market for embedded network management services.<sup>135</sup>

CUAC proposed an alternative approach would be to invite businesses to seek accreditation as an embedded network manager well before the commencement of the rule so that there will be enough embedded network managers once the rule commences.<sup>136</sup>

The Commission did not adopt the proposed deeming provisions in the draft rule. Instead, the draft rule set out a detailed implementation schedule that provided for nine months from when AEMO would finalise the embedded network management procedures to when embedded network operators would be required to appoint an embedded network manager. This approach would provide sufficient time for parties to achieve accreditation as embedded network managers as envisioned by CUAC.

DNSPs and Metropolis Metering supported the removal of the deeming provisions and the schedule in the draft rule.<sup>137</sup> Metropolis Metering considered that the removal of the deeming provisions is important because it will allow for a robust and undistorted competitive market to arise for embedded network management services.<sup>138</sup>

However, Living Utilities expressed concern that there would be a delay in development of a competitive market for embedded network management services under the timeframes set out in the draft rule. To overcome this issue, Living Utilities recommended consideration of accelerating the accreditation process and an interim regulated price cap on embedded network management services.<sup>139</sup>

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<sup>134</sup> Submissions from: CCIA, 22 October 2015, p.2; Origin Energy, 22 October 2015, p.1; and Metropolis Metering, 22 October 2015, p.3.

<sup>135</sup> Metropolis Metering submission, 21 May 2015, p.3; and CUAC submission, 26 June 2015, p.6.

<sup>136</sup> CUAC submission, 26 June 2015, p.6.

<sup>137</sup> ENA submission, 22 October 2015, p.3; and Metropolis Metering submission, 22 October 2015, p.3.

<sup>138</sup> Metropolis Metering submission, 22 October 2015, p.3.

<sup>139</sup> Living Utilities submission, 5 November 2015, p.2.

While supporting the draft rule implementation schedule, the CCIA suggested that in the nine months from finalisation of AEMO's procedures to commencement of the draft rule, AEMO should be required to upload details of embedded network managers immediately upon their accreditation. The CCIA considered this would mean there is no 'information gap' prior to the final rule commencement date which would assist embedded network operators in comparing and arranging appropriate service contracts.<sup>140</sup>

## **8.3 Commission's analysis**

### **8.3.1 Coordination with Power of Choice projects**

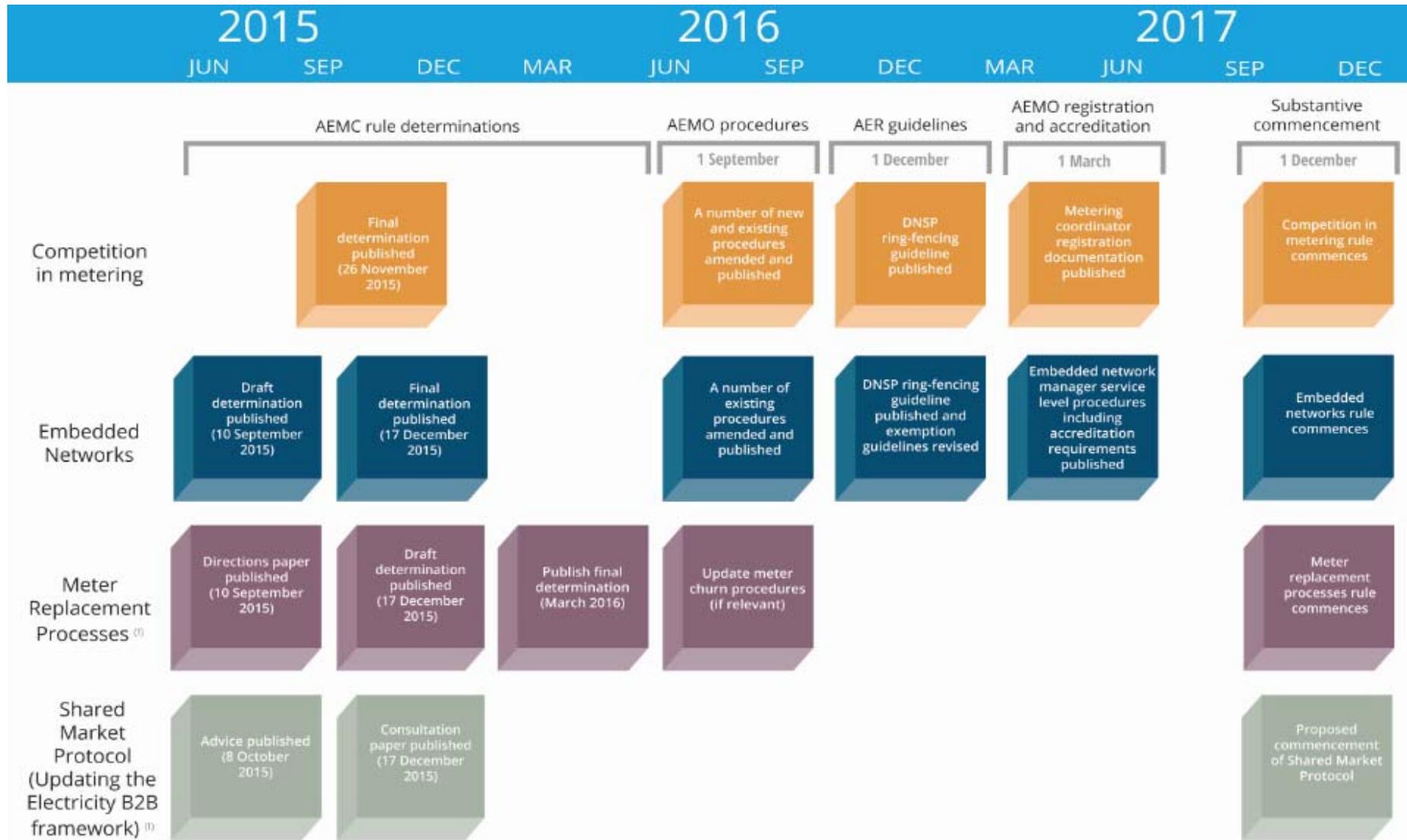
The AEMC, AEMO and the AER have been working together to develop an implementation work plan for the Power of Choice recommendations. Of particular relevance to the implementation of this rule change is the Competition in Metering final rule. The Meter Replacement Processes and the Updating the Electricity B2B Framework rule changes may also be relevant.

Figure 8.1 displays the Commission's implementation schedule for this and the Competition in Metering final rule. It also displays how the timeframes in the other two projects are best co-ordinated to streamline implementation across all four projects, noting that the final implementation timeframe for each will be determined as part of that project.

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<sup>140</sup> CCIA submission, 22 October 2015, p.2.

Figure 8.1 Implementation plan for Power of Choice reforms



(1) Preferable implementation timeframes provided for indicative purposes only, if any rule is made.

There are likely to be significant reductions in implementation costs from coordinated implementation of these projects. The timeframe will allow realisation of these benefits, including:

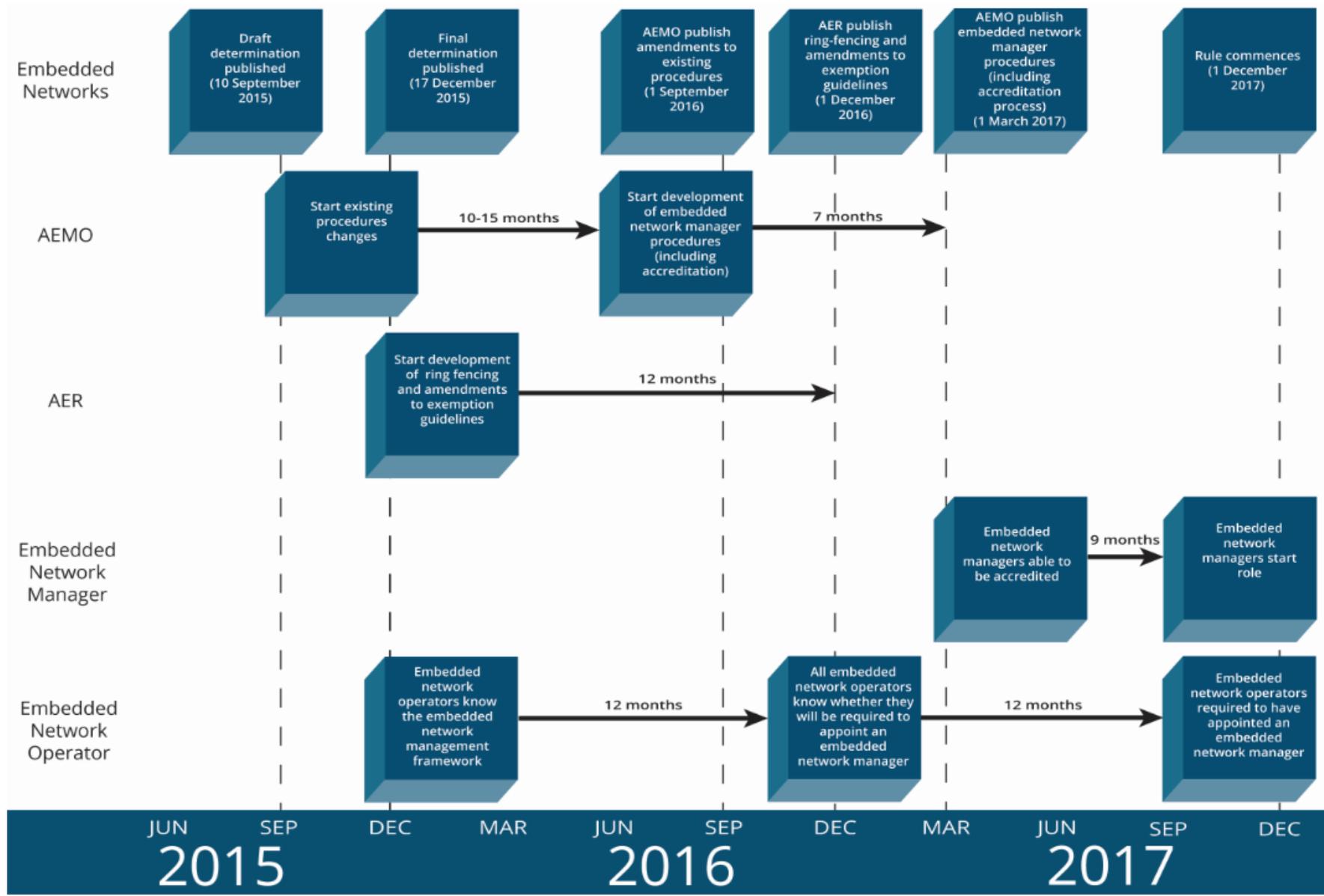
- by implementing all of the proposed changes on 1 December 2017 all parties will only be required to implement and comply with one set of changes which will reduce costs for DNSPs, retailers, embedded network operators and managers;
- the synchronisation of the systems changes will reduce costs to AEMO, retailers and DNSPs; and
- the synchronisation of changes to the AER's ring fencing and exemptions guidelines will reduce costs for the AER and stakeholders.

The Commission notes retailers and Metropolis Metering's concerns regarding any potential delay to implementation of the Competition in Metering final rule as a result of combination with the embedded networks final rule. However, the Commission does not consider that it is necessary to delay the embedded networks changes to allow for the proposed implementation of the Competition in Metering final rule. It notes that:

- consultation with AEMO and the AER indicated that the timeframes in the final rule should allow sufficient time for new procedures and guidelines to be developed or updated and for changes to be made to AEMO's Information Technology (IT) systems;
- AEMO has already begun working on revising its procedures; and
- AEMO and AEMC staff have been working closely together to reduce implementation risks as far as possible and AEMC staff have been attending AEMO's procedure development public workshops and will continue to do so in 2016.

Figure 8.2 provides the implementation schedule for the new embedded networks framework provided by the final rule. It highlights the timeframes by which implementation steps under the final rule will need to be completed.

**Figure 8.2 Embedded networks implementation schedule**



### 8.3.2 Grandfathering

In light of the implementation plan set out in Figure 8.2, the proposed grandfathering arrangements for existing embedded network operators are not required. This is because:

- the publication of this final rule determination and final rule provides existing embedded network operators almost two years to prepare for the introduction of the new regulatory framework on 1 December 2017. The final rule guides the AER's discretion in determining which embedded network operators will be required to appoint an embedded network manager. This provides embedded network operators with almost two years before the final rule takes effect in which they have a strong indication of whether they will be required to appoint an embedded network manager; and
- the AER is required to revise its network exemption guideline by 1 December 2016. This will provide embedded network operators with a definitive requirement of whether they are required to appoint an embedded network manager one year in advance of the rule taking effect.

This schedule provides similar notice to existing embedded network operators to adjust billing and contractual arrangements as proposed in AEMO's grandfathering provisions. However, it removes the delay in allowing embedded network customers within existing embedded networks the benefits of appointment of an embedded network manager.

### 8.3.3 Deeming

AEMO proposed a deeming arrangement to put in place embedded network managers before embedded network operators would be required to appoint them. These deeming arrangements are not required under the implementation schedule set out above. Under the schedule, AEMO will be required to finalise and open its embedded network manager accreditation procedures by 1 March 2017. This will provide nine months for interested parties to be accredited as embedded network managers and embedded network operators to appoint an embedded network manager. The Commission considers that this is sufficient time for interested parties to be accredited and embedded network operators to appoint their chosen embedded network managers. In this regard, it notes that:

- many parties, including retailers, NSPs and metering data providers already have the skills and procedures in place to perform the services and therefore will be able to be accredited quickly;
- similar procedures are in place for metering providers and metering data providers which will allow interested parties to become familiar with AEMO's accreditation processes prior to finalisation of the new embedded network management procedures; and

- AEMO's development of the procedures requires consultation which will allow interested parties to begin developing procedures before 1 March 2017.

The final rule does not adopt Living Utilities suggestion of an interim price cap. As set out in section 5.4.3, the prospects of a competitive market for embedded network managers are strong because embedded network management services have low barriers to entry, there are a number of businesses which already have the necessary skills to provide the services, and there are a number of businesses with significant incentives to perform the services to promote their businesses. Furthermore, an interim price cap would result in significant costs because the AER would need to undertake detailed assessment of the costs of providing the services for each DNSP throughout the NEM.

*Changes from draft to final*

The CCIA submitted that it would assist embedded network operators in appointing embedded network managers if AEMO maintained an up to date list of accredited embedded network managers between 1 March 2017 and 1 December 2017. This is a useful and practical solution to provide embedded network operators with the information they need. In transitional provisions under the final rule, AEMO is required to develop an interim list of embedded network managers between 1 March 2017 and 1 December 2017 and update it as persons are successfully accredited.

## Abbreviations

ACT	Australian Capital Territory
AEMC or Commission	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CCIA	Caravan, Camping and Touring Industry and Manufactured Housing Industry Association of NSW
CUAC	Consumer Utilities Advocacy Centre
DNSP	distribution network service providers
ENA	Energy Networks Association
ERAA	Energy Retailers Association of Australia
EWON	Electricity and the Water Ombudsman of NSW
FRMP	financially responsible market participant
IEC	Information Exchange Committee
IT	Information Technology
LNSP	local network service provider
MCE	Ministerial Council on Energy
MSATS	market settlement and transfer solutions
MTR	multiple trading relationships
NEL	National Electricity Law
NEM	National Electricity Market
NEO	national electricity objective
NER	National Electricity Rules
NERL	National Energy Retail Law

NERO	national energy retail objective
NERR	National Energy Retail Rules
NGL	National Gas Law
NGR	National Gas Rules
NMI	national metering identifier
NSP	network service provider
NSW	New South Wales
PIAC	Public Utilities Advocacy Centre
SA	South Australia
SACOSS	South Australian Council of Social Service
SCCA	Shopping Centre Council of Australia
VCPA	Victorian Caravan Parks Association

## A Summary of other issues raised in submissions

**Table A.1 Submissions to the consultation paper**

Stakeholder	Issue	AEMC Response
United Energy (p.3)	It is not clear whether the set up costs and the ongoing costs of employing an embedded network manager and the embedded network manager's accreditation costs could be charged to the child who caused the cost or smeared across all the customers within the embedded network.	The charging for network services by embedded network operators will continue to be governed by the AER through the network exemption guideline.
SCCA (p.13)	Clarification is needed on the frequency of AEMO compliance reviews to ensure these can be priced and funded.	Consistent with procedures for other accredited providers, AEMO will have discretion on the frequency of compliance reviews.
ENA (p.1)	The rule change should ensure, in both the policy intent and in detailed drafting, that the obligations placed upon the LNSP relating to embedded networks are limited to provision of the parent connection point to the NEM. The LNSP must not be left as the default service provider or service facilitator for customers within an embedded network as the LNSP has no visibility, contractual or other connection with these customers.	A number of consequential amendments to Chapter 7 of the NER have been made to limit LNSP obligations to the parent connection point.
EnergyAction (p.2)	We note from the discussion paper that LNSPs shall be required to apply ring-fencing to their embedded network manager activities yet no such requirement is proposed for the retailers. This is somewhat odd particularly as the retailer will have its own commercial interests which may be in conflict with facilitating customer opt-outs where the incoming retailer is other than that holding the role of embedded network manager. Where existing retailers act in the position of embedded network managers ring fencing should apply.	<p>The purpose of ring-fencing arrangements for LNSPs is to provide for the accounting and functional separation of the provision of direct control services from other services provided by LNSPs. By separating regulated and non-regulated entities NSPs are prevented from gaining an unfair advantage in competitive activities.</p> <p>Ring-fencing arrangements are not required for retailers because they do not undertake regulated</p>

Stakeholder	Issue	AEMC Response
		services.
NSW DNSPs (p.4)	Consideration should also be given to arrangements for continuity of supply, should the embedded network operator and/or manager run into financial difficulty which may see its customers immediately lose supply if no alternative arrangements are in place. If the embedded network fails, connecting customers to the main network may take an extended period and require significant investment in new connection infrastructure to adhere to networks required safety standards.	<p>Default arrangements for embedded network operators are addressed under the AER's exemption guidelines.</p> <p>Embedded network managers will also be subject to a deregistration process in the event of a breach of obligations. Continuity of supply in the embedded network is an issue for the embedded network operator and otherwise beyond scope of this rule.</p>

**Table A.2 Submissions to the draft rule determination**

Stakeholder	Issue	AEMC response
AusNet Services (p.7)	AusNet support embedded network operators being required to perform life support functions notification requirements because an embedded network manager will not be in place for all embedded networks. However, AusNet submit that for embedded networks with an embedded network manager, the embedded network manager should be required to undertake life support notification services. AusNet considered this would allow notification through the B2B Procedures which would lower costs and provide a more reliable information flow.	<p>Life support provisions are set out in the NERR not the NER. If obligations were to be placed on embedded network managers they would most appropriately be addressed through changes to the NERR which cannot be addressed in this rule change request.</p> <p>This issue is set out in the table of NERR issues in Appendix F and may be considered in a review of the NERL and NERR in the context of embedded networks, as recommended in Chapter 7.</p>
AusNet Services (p.3)	AusNet considered that the network exemption guideline does not properly address either:	As set out in section 5.1, because an embedded network manager will not be in place for all

Stakeholder	Issue	AEMC response
	<ul style="list-style-type: none"> <li>• notification to electricity consumers within embedded networks of planned outage notifications either resulting from onsite outage, or from the LNSP in a timely manner; and</li> <li>• provision of a 24 hour contact number for enquiries and referrals from consumers and LNSPs.</li> </ul> <p>AusNet considered that while the Victorian Electricity Distribution Code does specifically address these circumstances, situations can arise where the ENO is non-compliant to these obligations.</p> <p>AusNet considered that placing obligations on the embedded network manager would be an improvement on the current arrangements.</p>	<p>embedded networks, functions such as outage notifications must be performed by embedded network operators. This issue is therefore most appropriately addressed through the AER's network exemption guideline.</p> <p>The AER will revise its network exemption guideline by 1 December 2016 and this will provide stakeholders with an opportunity to make submissions to the AER regarding these issues.</p>
Metropolis Metering (p.4)	Metropolis Metering questioned how the AER could increase the meter reading, testing and inspection standards for off-market embedded network customers without requiring accredited providers to undertake the functions.	If the AER was to adopt this recommendation it would need to do so in a similar way to its adoption of the meter accuracy requirements in Schedule 7.2 of the NER. For example, the AER could specify that the standards in Schedule 7.3 need to be met, but the provisions relating to the providers of such services do not. This issue will be a matter for the AER.
ENA (p.7)	While supporting the coordinated implementation schedule in principle, the ENA submitted that the proposed project timelines will be very challenging to achieve.	Chapter 8 addresses the Commission's implementation schedule for this final rule.
Living Utilities (p.2)	<p>In addition to the transitional issues discussed in section 8.3.3, Living Utilities recommended that to overcome any possible delay in a competitive market for embedded network management services emerging, the Commission should consider:</p> <ul style="list-style-type: none"> <li>• unbundling of all authorised retailers' prices to permit FRC</li> </ul>	<p>In regard to these issues:</p> <ul style="list-style-type: none"> <li>• the Commission considers that unbundling of all authorised retailers' offers is not appropriate and is not within the scope of this rule change process;</li> </ul>

Stakeholder	Issue	AEMC response
	<p>transparency on retail vs network/ancillary components and that there is a clear path for the network owner to recover the costs of the network management role within any obligation to shadow price from the retailer;</p> <ul style="list-style-type: none"> <li>• requiring that customers within embedded networks that choose an external retail offer are assigned a network tariff (payable to the embedded network owner) as though they were connected directly to the local DNSP; and</li> <li>• that NUOS agreements between registered retailers and embedded network owners are mandated or agreed in good faith with the AER as final point of arbitration. Embedded network owners can re-coup the network charges directly from retailers and not have to separately bill end-users.</li> </ul>	<ul style="list-style-type: none"> <li>• the charging for network services is governed by the AER through the network exemption guideline; and</li> <li>• network use of system tariffs charged by DNSPs are governed under Chapter 6 of the NER and are not within the scope of this rule change request.</li> </ul>
SACOSS (p.2)	<p>While SACOSS acknowledged the likely positive price outcomes for embedded network consumers from the new embedded network arrangements under the draft rule, the impact of upgrading existing infrastructure may present a significant cost barrier for a significant proportion of consumers. SACOSS noted, for example, some residential and caravan parks currently operate hub meters (where dwellings with separate meters are connected to a central point, the hub, which is connected to the parent meter). SACOSS is concerned the cost of upgrading metering arrangements may prevent these customers from accessing the benefits of competitive market offers and the associated consumer protections.</p>	<p>The metering requirements for off-market embedded network customers are set out in the AER's network exemption guideline. Under the final rule the AER will revise its network exemption guideline by 1 December 2016 and this will provide stakeholders with an opportunity to make submissions to the AER regarding these issues.</p>
EWON (p.1)	<p>EWON noted that the opening up of embedded networks to the retail market may result in costs associated with re-wiring and change of child meters. It is current industry practice for these costs to be passed onto customers. This may present as a barrier to competition and deter embedded network customers from opting into the retail market. While in theory a competitive market will incentivise businesses to offer innovative</p>	

Stakeholder	Issue	AEMC response
	products to customers at minimal cost, which may perhaps include meter conversion at no charge to the customer, it is important that any costs borne by customers are clearly communicated to them. This will help customers to understand the costs involved in accessing retail energy offers and make informed decisions about the value of offers from retailers and embedded network providers.	
NSW DNSPs (p.1)	The NSW DNSPs would value an opportunity to review a mark-up of the final metering competition Chapter 7 given the additional changes being considered to the metering competition draft rule.	This final rule determination and final rule were published three weeks after the Competition in Metering final rule was published. A marked-up version of the Competition in Metering draft rule was released with the draft rule determination to inform stakeholders on how the embedded network framework would likely be reflected in the amendments sought to be made by that rule allow stakeholders to make submissions on the proposed changes.
SCCA (p.3)	SCCA reiterated its concern about the proposed changes to the AER's network exemption guidelines to increase reading, testing and inspection standards and require unbundling of bills, to the extent that this could inadvertently require the installation of new digital meters. This concern, in general terms, relates to the new regulatory framework imposing additional new capital costs on embedded network operators.	The recommendation to increase the meter reading, testing and inspection standards set out in section 6.2.2 is a separate issue to the minimum whether installation of new digital meters are required. There is no obligation to replace existing working meters with digital meters.
Origin Energy (p.1)	Origin expressed concern on is the requirement to provide embedded network customers with unbundled bills in certain circumstances. The potential costs of changing retailer billing systems to facilitate unbundling of bills are likely to outweigh the benefits to customers.	The recommendations to the AER set out in section 6.2.1 regarding comparability of market offers does not require either embedded network operators or retailers to unbundle bills for embedded network customers. The Commission recommends that the AER consider that on request from a retailer or customer, embedded network operators be required to provide the split of their retail prices into network and energy

Stakeholder	Issue	AEMC response
		components.
E2Designlab (p.1)	<p>In principle the proposed changes are supported as they promote and facilitate customer choice. However, the changes do little to promote the development of microgrids, particularly microgrids embedded in urban electricity networks. Microgrids will:</p> <ul style="list-style-type: none"> <li>• open up the embedded network market;</li> <li>• reduce energy prices to consumers;</li> <li>• safely integrate renewable generation and battery storage into the NEM;</li> <li>• protect existing consumers;</li> <li>• increase grid resilience against events such as storms; and</li> <li>• enable safe off-grid operation where appropriate.</li> </ul> <p>There is a need for changes to the NER and AER exemption guidelines in order to recognise microgrids as a new and separate class of embedded network.</p>	<p>The objective of this rule change process was to reduce the barriers to embedded network customers accessing retail market offers and to increase the clarity of the regulatory arrangements for embedded networks.</p> <p>'Microgrids' are not defined within the NER. However, where a 'microgrid' falls within the definition of an embedded network the new framework will assist in both of these areas. 'Microgrids' will only fall within the definition of an embedded network if the 'microgrid' is connected to a distribution or transmission system in the NEM, has a parent connection point and serves multiple premises.</p> <p>The classes of embedded networks within the AER's network and retail exemption guidelines are matters for the AER. The AER will revise its network exemption guideline by 1 December 2016 and this will provide stakeholders with an opportunity to make submissions to the AER regarding these issues.</p>
United Energy (p.1)	<p>United Energy considered that there should be an obligation on the embedded network operator to also advise of all embedded generation capability (size, type etc) within the embedded network to the LNSP. Under the Electricity Distribution Code United Energy has an obligation to keep a register of all embedded generation located in its area. Further, for network planning purposes United Energy needs to understand all available embedded generation (solar, wind, EV battery, battery etc) which impacts network forecasts and localised network asset</p>	<p>The obligations on embedded network operators to provide information regarding embedded generation within their networks are matters for the AER under the network exemption guideline. The AER will revise its network exemption guideline by 1 December 2016 and this will provide stakeholders with an opportunity to make</p>

Stakeholder	Issue	AEMC response
	management and planning. This is a requirement that should be added for the AER to include in the update of the exempt network guideline.	submissions to the AER regarding these issues.
SCCA (p.2)	The final determination should provide that an embedded network operator should not have capital costs imposed on them where the transfer of an off-market customer to an on-market customer would impose unreasonable costs on their network. This could be, for instance, the upgrade of a parent meter or switchboard, or the need for significant wiring changes within a network. Similar to the issue noted above, embedded network operators should be able to recover any costs imposed on them as a result of the transfer of an off-market customer to an on-market customer. Further, embedded network operators should be able to recover the costs associated with the new regulatory framework, including the cost of embedded network managers and items such as metering services and connections, and repairs and maintenance.	The charging by embedded network operators for metering and network services will continue to be governed under the AER's exemption guidelines. The AER will revise its network exemption guideline by 1 December 2016 and this will provide stakeholders with an opportunity to make submissions to the AER regarding these issues.
SCCA (p.2)	To ensure that regulatory certainty and harmonisation is achieved with the new framework, LNSPs should be expressly prohibited from imposing additional embedded network requirements outside, and in addition to, requirements in the final rule determination and rule change. Such requirements could possibly emerge in the form of a condition of development consent under state planning legislation or through the purchase of electricity. This would undermine the purpose and efficiency of the new framework	<p>The final rule reduces LNSP involvement and impact within embedded networks by placing responsibility for performing market interface services on a embedded network manager.</p> <p>The requirements that LNSPs are able to make on embedded network operators in their role as customer at the parent connection point are not affected or within scope of this rule change process.</p>
SCCA (p.2)	<p>SCCA noted that the final rule change will trigger a change in the service level procedures. It considered that there is a critical need to ensure that AEMO's establishment of these procedures must be based on:</p> <ul style="list-style-type: none"> <li>• consultation with embedded network operators;</li> </ul>	<p>Consistent with the other detailed aspects of the requirements on embedded network managers AEMO will have discretion in developing its procedures. In doing so:</p> <ul style="list-style-type: none"> <li>• AEMO must consult on these procedures, including with embedded network operators</li> </ul>

Stakeholder	Issue	AEMC response
	<ul style="list-style-type: none"> <li>• minimum standards to achieve the object of the rule change; and</li> <li>• a full consideration of the cost issues for embedded network operators.</li> </ul> <p>There is a considerable risk that AEMO could over-specify the service level procedure requirements, which could see unnecessary additional costs imposed on embedded network operators and their relatively small customer base.</p> <p>SCCA's concern with potential increased costs for embedded network operators and their customers includes issues such as the frequency of compliance reviews, as well as the provision of electrical wiring information.</p>	<p>(assuming embedded network operators identify themselves to AEMO as having an interest in the procedure and its consultation); and</p> <ul style="list-style-type: none"> <li>• AEMO must develop its procedures in accordance with the NEO.</li> </ul>

## **B Legal requirements under the NEL**

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this final rule determination.

### **B.1 Final rule determination**

In accordance with s. 102 of the NEL the Commission has made this final rule determination in relation to the rule proposed by AEMO.

The Commission's reasons for making this final rule determination are set out in section 2.3.

A copy of the more preferable final rule is attached to and published with this final rule determination. Its key features are described in section 2.3 and Appendix C.

### **B.2 Power to make the rule**

The Commission is satisfied that the more preferable final rule falls within the subject matter about which the Commission may make rules. The more preferable final rule falls within s. 34 of the NEL as it relates to:

- regulating the operation of the national electricity system for the purposes of the safety, security and reliability of that system (s. 34(1)(a)(ii));
- the activities of persons (including registered participants) participating in the national electricity market or involved in the operation of the national electricity market (s. 34(1)(a)(iii)); and
- facilitating and supporting the provision of services to retail customers (s. 34(1)(aa)).

Further, the more preferable final rule falls within the matters set out in schedule 1 to the NEL as it relates to:

- item 2 - the exemption of persons from the requirement to be registered participants;
- item 11 - the operation of generating systems, transmission systems, distribution systems or other facilities; and
- item 32 - procedures and related systems for the electronic exchange or transfer of information that relates to consumers of electricity, the provision of metering services and connection to the national electricity system, and requiring compliance with such procedures and use of such related systems.

### **B.3 Commission's considerations**

In assessing the rule change request the Commission considered:

- the Commission's powers under the NEL to make the rule;
- the rule change request;
- submissions received during first and second round consultation;
- interactions with other relevant rule changes and review recommendations;
- the AEMC's final advice on Energy Market Arrangements for Electric and Natural Gas Vehicles;
- the AEMC's Power of Choice review final report; and
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

There is no relevant Ministerial Council on Energy (MCE) Statement of Policy Principles.<sup>141</sup>

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of AEMO's declared functions.<sup>142</sup> The Commission considers that the final rule is compatible with AEMO's declared network functions because it is unrelated to them and therefore it does not affect the performance of these functions.

### **B.4 Civil penalties**

The provisions of the NEL that are classified as civil penalty provisions are listed in the National Electricity (South Australia) Regulations. While the Commission cannot create new civil penalty provisions, it may recommend to the COAG Energy Council that new or existing provisions of the NEL be classified as civil penalty provisions.

Where the final rule amends an existing clause that is currently a civil penalty provision, the Commission has considered whether the civil penalty should be retained. Where the final rule either amends an existing clause that is not currently a civil penalty provision or introduces a new clause, the Commission has considered whether that clause should be subject to a civil penalty.

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<sup>141</sup> Under s. 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy. On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated Council is now called the COAG Energy Council.

<sup>142</sup> See section 91(8) of the NEL.

In considering whether a civil penalty should apply, the Commission has taken the following general approach:

- where an existing clause is currently a civil penalty provision and the clause has not been amended substantially, the civil penalty should continue to apply; and
- where an amended clause or a new clause introduces a new obligation that is key to the effective operation of the NEM or relates to security and/or confidentiality of customer data or key consumer protections, the provision should attract a civil penalty.

The clauses of the NER that the Commission recommends should attract a civil penalty are set out in Table B.1 below.

**Table B.1 Recommended civil penalty provisions**

New clause reference (in Final Rule)	Reference to clause as it was in Draft Rule	Who the obligation is imposed on?	Recommendation
<i>Amended clauses that it is recommended should continue to attract a civil penalty</i>			
8.8.2(d)(1)	7.3.1(e)	LNSP	Retain
7.16.2(c)	7.2.8(d)	Registered Participants/ Metering Providers/ Metering Data Providers  And now Embedded Network Managers	Retain
<i>Amended clauses that it is recommend should now attract a civil penalty</i>			
7.10.3(a)	Not referred to in draft rule	Metering Data Provider	In the Competition in Metering final rule, it was recommended that this clause should be classified as a civil penalty provision as the obligation imposed on the Metering Data Provider to only provide certain data to certain persons required by the Rules and procedures is key to the protection of customer data.  This clause has only been amended to make an adjustment for an amended cross reference necessary to house the embedded networks framework.
<i>New clauses that it is recommend should attract a civil penalty</i>			

New clause reference (in Final Rule)	Reference to clause as it was in Draft Rule	Who the obligation is imposed on?	Recommendation
7.5A.1(a)	7.16.1	Embedded Network Manager	<p>This clause should be classified as a civil penalty provision as the obligation that only accredited embedded network managers undertake embedded network management services is key for the effective operation of the market.</p> <p>Embedded network management services include inputting data into MSATS which has implications for NEM financial accuracy, stability and system security.</p> <p>Similar obligations imposed on other parties that require interfacing with MSATS are currently classified as civil penalties.</p>
7.8.2(ea)	7.3.1(fa)	Embedded Network Manager	<p>This clause should be classified as a civil penalty provision as the obligation imposed on the Embedded Network Manager to apply for a NMI and register it with AEMO is key for the effective operation of the market. Importantly, without a NMI the relevant customer cannot go on market. The similar obligation imposed on LNSPs is also classified as a civil penalty.</p>
7.15.4	n/a	Embedded Network Manager	<p>The Competition in Metering final rule recommended this clause should be classified as a civil penalty provision as the obligations imposed on the Metering Coordinator and Metering Provider in relation to security controls for small customer metering installations are key consumer protections.</p> <p>In the final rule this clause has been amended to extend this obligation to Embedded Network Managers to ensure consistency of this obligation for such metering installations at a child connection point on an embedded network.</p>

## **C Embedded network manager – detailed design**

This appendix sets out the Commission's detailed design for introducing the embedded network manager role into the NER. It includes:

- the requirements under the final rule, including:
  - the requirement for interested parties to gain accreditation;
  - the embedded network management functions; and
  - the embedded network manager governance framework.
- the Commission's consideration of detailed design issues raised in submissions.

### **C.1 Functions and governance of embedded network managers**

#### **C.1.1 Gaining accreditation**

The final rule sets out key requirements for interested parties to be able to provide embedded network management services.

First, an embedded network manager must be accredited and registered by AEMO as an embedded network manager. To allow this to occur the final rule requires AEMO to establish a qualification process for embedded network managers. It must also develop and publish guidelines to assist parties wishing to be accredited and registered with the preparation of their applications.

Second, the final rule establishes a minimum set of capabilities for embedded network managers, including:

- A detailed understanding of:
  - the NER and all procedures authorised under the NER, including the embedded network management service level procedures;
  - the terms and conditions of the AER's network exemption guideline; and
  - the participant role relationships and obligations that exist between embedded network managers, metering data providers, metering providers, financially responsible market participants, LNSPs, AEMO and metering coordinators.
- The establishment of a system which will:
  - underpin all operational documentation, processes and procedures;
  - facilitate good change control management of procedures, IT systems and software;

- provide audit trail management of embedded network wiring information;
  - maintain security controls and data integrity; and
  - maintain knowledge and understanding of the NER and relevant procedures, standards and guides authorised under the NER.
- An understanding of the required logistical interfaces necessary to support the provision of embedded network management services. This will include the interfaces needed to access AEMO's systems, support the metrology procedure, B2B Procedures, service level procedures and MSATS.

### **C.1.2 Performing functions**

When performing embedded network management functions the final rule requires embedded network managers to follow AEMO's embedded network management service level procedures. These procedures must include:

- a list of embedded network management services;
- the requirements for the provision of embedded network management services;
- the requirements for the management of relevant embedded network wiring information;
- the requirements for the assignment of the parent connection point and child connection points on an embedded network;
- the application and notification of distribution loss factors; and
- information to ensure consistency in practice between the embedded network management service level procedures and other documents developed and published by AEMO, including the practices adopted in the MSATS procedures.

In addition embedded network managers must:

- comply with the confidentiality and dispute resolution frameworks in the NER, as other accredited providers do; and
- maintain information about the types and configuration of metering installations within the embedded network and about the subtractive or other arrangements used in respect of those metering installations relevant to settlements and, in accordance with the B2B Procedures, make that information available on request to:
  - the financially responsible market participant (FRMP) for any child connection point on the embedded network or that market participant's metering coordinator; or

- any market participant to whom financial responsibility for any such child connection point is to be transferred or that market participant’s proposed metering provider.

To assist embedded network managers in meeting the above requirements the final rule requires AEMO to develop a guide for embedded networks, addressing, but not limited to:

- the nature of exemptions granted by the AER to embedded networks;
- which retailers and other persons are able to sell electricity to consumers whose premises are supplied with electricity conveyed through embedded networks; and
- the roles, responsibilities and obligations of embedded network managers under the NER and procedures authorised under the NER.

### **C.1.3 Embedded network management governance framework**

The final rule requires a registered and accredited provider to perform the functions of an embedded network manager. The Commission is recommending that this provision be classified as a civil penalty.

It also sets out that AEMO must establish, maintain and publish a procedure for deregistration of embedded network managers. This must include provisions for voluntary deregistration and deregistration for embedded network managers which have breached the NER or AEMO's procedures.

The Commission notes that under the final rule if an embedded network operator does not appoint an embedded network manager when it is required to by the AER under the network exemption guideline then this is a breach of an exemption condition not a breach of AEMO's procedures. It will therefore be dealt with through the AER's network exemption framework.

## **C.2 Detailed design issues raised in submissions**

### **C.2.1 Embedded network definition**

#### **AEMO proposal**

AEMO proposed to define an embedded network as 'a distribution network forming part of the national grid which is not a network service provider's distribution network'.<sup>143</sup>

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<sup>143</sup> AEMO, Embedded Networks Rule Change: Appendix A – Draft Rule, p.15.

## Submissions

DNSPs submitted that AEMO's proposed definition was too broad. For example, the NSW DNSPs considered that the intent of the rule change is to capture only those private networks where the embedded network operator sells electricity to other customers/premises, yet the definition would capture a wide range of other private networks. The DNSPs suggested inclusion of a requirement of a parent connection point in the definition as this would target the definition to private networks where onselling occurs.<sup>144</sup>

## Draft rule determination

The draft rule defined an embedded network as 'a distribution system, connected 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'. This definition is similar to that proposed by AEMO and would capture private networks serving multiple premises without a parent connection point (where onselling cannot occur).

However, the definition in the draft rule together with the more flexible threshold for when an embedded network manager is required to be appointed, resulted in an effect different to that under the proposed rule. Under the threshold in the draft rule the AER would have discretion not to require an embedded network manager to be appointed if it considered that the likely costs of appointment would outweigh the likely benefits. The Commission expected the AER would exercise its discretion in the case of private networks without parent connection points because there are no likely benefits from appointing an embedded network manager in these situations. This is because customers inside such networks already have a connection point to their LNSP's network and therefore the LNSP is responsible for providing market interface services.

## Submissions to the draft rule determination

The NSW DNSPs considered that the draft rule addressed their concerns with AEMO proposed definition of embedded networks. The NSW DNSPs noted that the draft rule provided greater certainty regarding the responsibilities relating to embedded networks than under AEMO's proposal.<sup>145</sup>

However, the ENA, United Energy, Jemena and AusNet Services considered the definition in the draft rule was still too broad. These stakeholders argued that the definition should be amended to clarify that embedded networks only include private networks with parent connection points.<sup>146</sup> For example, the ENA submitted that:<sup>147</sup>

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<sup>144</sup> Submissions from: NSW DNSPs, 2 July, p.4; and TasNetworks, 2 July 2015, p.1.

<sup>145</sup> NSW DNSPs submission, 22 October 2015, p.1.

<sup>146</sup> Submissions from: ENA, 22 October 2015, p.6; United Energy, 22 October 2015, p.4; Jemena, 22 October 2015, p.1; and AusNet Services, 22 October 2015, p.1.

<sup>147</sup> ENA submission, 22 October 2015, p.6

“There are situations where the LNSP owns, controls and operates transformers within multiple occupancy sites and provides each customer with a connection point to the LNSP's network. The role of the body corporate in supplying electricity is incidental and each customer maintains a direct relationship with the LNSP. With the AEMC's proposed definition, the body corporate that *only* provides the wires from the consumer's mains at the group metering panel to the customer's individual premise would be deemed an embedded network. The Rules and the AER's network guideline would impose embedded network obligations on such body corporate organisations that would otherwise not be involved in the day to day supply of electricity and would also affect the customers' direct relationship with the LNSP.

The ENA suggests that the embedded network definition include a reference to metered parent connection points to provide delineation between embedded networks and multiple occupancies where the customers are LNSP customers.”

### **Commission's analysis**

The final rule amends the draft rule definition of an embedded network to only include private networks with a parent connection point. This will provide clarity that the new embedded network framework, including the potential requirement for an embedded network manager to be appointed, only applies to private networks with parent-child metering relationships. These are the private networks where an LNSP is not responsible for performing market interface services and therefore an embedded network manager may be required so that there is a party responsible for performing market interface services.

The definition of embedded networks does not affect which private networks are required to be exempted under the AER's network exemption guideline. These are two separate considerations. The requirements under the current network exemption guideline (set out in Appendix D) potentially capture a much broader range of private networks than those that are likely to meet the definition of an embedded network set out in the final rule. For example, the current network exemption guideline explains that "no matter how small the network, anyone that supplies electricity to another person over a network of any kind is providing a network service. An exemption from the AER is required for such a party to be unregistered, be that party a legal person, corporation, government department or statutory body of any kind".<sup>148</sup>

Private network operators should consult the AER if they are unsure of whether they require a network exemption for their particular private network.

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<sup>148</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013, p.5.

## **C.2.2 Ring fencing**

### **AEMO proposal**

AEMO proposed that to ensure a level playing field, any embedded network manager activities undertaken by a registered DNSP should be ring-fenced from its regulated business activities.<sup>149</sup> However, AEMO did not propose changes to the current ring-fencing arrangements in the NER. This would allow the AER to decide (subject to the NEO) which DNSP activities must be ring-fenced.<sup>150</sup>

### **Submissions and draft rule determination**

Submissions from retailers, DNSPs and consumer groups supported the proposed ring-fencing arrangements.<sup>151</sup>

To provide certainty to any DNSPs wishing to provide embedded network management services on 1 December 2017, the draft rule required the AER to publish ring-fencing guidelines by 1 December 2016.

Submissions to the draft rule determination did not address this issue.

### **Commission's analysis**

The Competition in Metering final rule published on 26 November 2015 included a requirement for the AER to publish ring-fencing guidelines by 1 December 2016. The final rule for embedded networks therefore does not repeat this requirement. Under this obligation, the AER may determine ring-fencing arrangements for a DNSP taking on the embedded network manager role.

## **C.2.3 Distribution loss factors**

### **AEMO's proposal**

AEMO proposed that embedded network operators would continue to be responsible for calculating distribution loss factors within their own embedded networks under instruction from the AER through the network exemption guideline.<sup>152</sup> However, because embedded network operators do not have access to MSATS, AEMO proposed that the embedded network manager needs to apply and enter distribution loss factors into MSATS.

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<sup>149</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.10.

<sup>150</sup> Clause 6.17 of the NER.

<sup>151</sup> Submissions from: Origin Energy, 2 July 2015, p.4; United Energy, 2 July 2015, p.6; and CUAC, 2 July 2015, p.5.

<sup>152</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.12.

To achieve this, embedded network managers will need to determine the appropriate transmission connection point and assign the child connection point to that transmission connection point in MSATS. The embedded network manager will also need to determine the distribution loss factor for the parent connection point. The proposed rule introduced drafting to impose some obligations on embedded network managers to perform these functions.<sup>153</sup>

In order to assist in performing these functions AEMO also proposed that if an embedded network manager reasonably requires any information from a NSP in order to determine the distribution loss factor then the NSP should be required to provide the information within ten business days of the request.<sup>154</sup>

### **Submissions and draft rule determination**

DNSPs opposed AEMO's proposed requirement that they provide information regarding distribution loss factors to embedded network managers. DNSPs considered the requirements were unnecessary as all of the required information for MSATS will already be available to embedded network managers.<sup>155</sup>

In the draft rule determination the Commission set out that:

- distribution loss factors will continue to be calculated by embedded network operators;
- embedded network managers' role will be limited to applying and entering distribution loss factors into MSATS;
- AEMO will be required to inform embedded network managers how to apply and enter distribution loss factors into MSATS as part of its embedded network management service level procedures; and
- DNSPs do not need to provide information to embedded network managers regarding distribution loss factors.

Submissions to the draft rule determination did not address this issue.

### **Commission's analysis**

It is appropriate that distribution loss factors continue to be calculated by embedded network operators under instruction from the AER through the network exemption guideline. Embedded network managers' role will therefore be limited to applying and entering distribution loss factors into MSATS.

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153 AEMO, National Electricity Rule Change Request – Appendix A: Draft Rule, September 2014, p.4.

154 AEMO, National Electricity Rule Change Request – Appendix A: Draft Rule, September 2014, p.4.

155 Submissions from: United Energy, 2 July 2015, p.4; and the NSW DNSPs, 2 July 2015, p.4.

The Commission does not consider it necessary to provide for the above in rules based obligations. Instead, the final rule requires AEMO to inform embedded network managers how to apply and enter distribution loss factors into MSATS as part of the embedded network management service level procedures. This approach is consistent with other detailed requirements of embedded network management services in the final rule.

Furthermore, the Commission does not consider it is necessary to require DNSPs to provide information to embedded network managers regarding distribution loss factors. The necessary information for embedded network managers to apply and enter distribution loss factors will be available without provision from DNSPs.

For clarity, this would mean the process for informing AEMO of an embedded network distribution loss factor in the majority of cases will be:

1. the embedded network operator will be responsible for calculating the distribution loss factor within its network in accordance with the requirements of the AER's network exemption guideline;
2. the embedded network manager will determine the appropriate transmission network connection point (or virtual transmission node) and assign the child metering installation to that connection point in MSATS. This information is available in MSATS to the embedded network manager and will be under instruction from AEMO in the embedded network management service level procedures;
3. the embedded network manager will need to look up the appropriate distribution loss factor for the parent connection point provided on AEMO's website under instruction from AEMO in the embedded network management service level procedures;
4. the embedded network manager will need to apply the child connection point distribution loss factor as the product of the distribution loss factor for the parent connection point and the distribution loss factor within its own network; and
5. the embedded network manager will need to enter this value in MSATS for the child connection point.

#### **C.2.4 NMI allocation**

##### **AEMO proposal**

AEMO proposed that embedded network managers be responsible for requesting AEMO to provide NMIs and then allocating these NMIs to child metering installations

in MSATS when an off-market embedded network customer requests to become on-market.<sup>156</sup>

However, AEMO did not propose to make changes to the NER to reflect this.

### **Submissions and draft rule determination**

Submissions to the consultation paper did not address this issue.

To achieve AEMO's proposed approach the draft rule obliged embedded network managers to allocate NMIs for child connection points, and AEMO to issue them.

Origin supported the change to require the embedded network manager to be responsible for allocating NMIs. However, it requested further information on whether the characteristics of NMIs allocated by embedded network managers within LNSPs' areas would match the characteristics of the LNSPs' NMIs.<sup>157</sup>

### **Commission's analysis**

Under the Competition in Metering final rule, from 1 December 2017, LNSPs continue to be responsible for issuing NMIs upon request from the FRMP. To achieve AEMO's proposed approach for embedded networks the final rule places obligations on embedded network managers to request NMIs from AEMO and issue them to the metering coordinator, FRMP and embedded network operator for embedded network customers. Consistent with the Competition in Metering final rule, embedded network managers will also be required to register the NMI for the connection point with AEMO.

Regarding Origin's request for further information, the Commission considers that NMI characteristics are a matter for AEMO through its guideline development process in consultation with stakeholders. However, discussions with AEMO reveal there is a range of options for NMI characteristics to allow identification of which LNSP network area the embedded network is in. For example, each embedded network manager could be allocated a block of NMIs with specific characteristics for each LNSP's network.

#### **C.2.5 NMI transition**

##### **AEMO proposal**

AEMO did not set out any specific provisions relating to transitioning responsibility for existing on-market embedded network customers' NMIs upon commencement of its proposed rule.

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<sup>156</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.9.

<sup>157</sup> Origin Energy submission, 22 October 2015, p.3.

## **Submissions and draft rule determination**

No submissions to the consultation paper addressed NMI transitional issues.

The draft rule determination did not address NMI transitional issues. However, the ENA and United Energy requested consideration of responsibility for managing existing NMIs for on-market embedded network child connection points upon commencement of the final rule.<sup>158</sup>

## **Commission's analysis**

No specific provisions are necessary to provide responsibility for existing on-market NMIs. Once embedded network managers are accredited and appointed, and AEMO systems are updated to take account of the embedded network manager framework, the systems will reflect that embedded network managers are responsible for the relevant NMIs.

### **C.2.6 Transitional arrangements for type five and six meters**

#### **AEMO proposal**

AEMO did not propose any transitional arrangements for existing on-market embedded network customers with type five or six meters provided by LNSPs.

#### **Submissions and draft rule determination**

United Energy noted that AEMO's proposed rule did not address the situation where LNSPs are currently providing metering services for on-market embedded network customers as the responsible person. United Energy considered that upon commencement of the Competition in Metering final rule on 1 December 2017, these meters should be treated in the same manner as type five and six meters for customers outside of embedded networks. This would require a grandfathering arrangement where the LNSP would be deemed to be the metering coordinator on 1 December 2017 for these customers.<sup>159</sup>

The draft rule did not provide grandfathering provisions for existing on-market embedded network customers with type five or six meters. The Commission considered on-market embedded network customers are not connected to LNSPs' networks and therefore LNSPs are not the responsible person for these on-market embedded network customers.<sup>160</sup>

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<sup>158</sup> Submissions from: ENA, 22 October 2015, p.3; and United Energy, 22 October 2015, p.1.

<sup>159</sup> United Energy submission, 2 July 2015, p.4.

<sup>160</sup> AEMC, Embedded Networks, Draft Rule Determination, 10 September 2015, p.65.

In response, the ENA, AusNet Services and United Energy reiterated United Energy's submission to the consultation paper that the grandfathering arrangements that apply to customers outside of embedded networks with type five and six meters should apply to existing on-market embedded network customers.<sup>161</sup>

These stakeholders submitted that while these customers may not be on their network they have been performing these services to allow embedded network customers to go on-market and a grandfathering arrangement would allow for continuity and a smooth transition on 1 December 2017.<sup>162</sup>

### **Commission's analysis**

On commencement of the Competition in Metering final rule on 1 December 2017 LNSPs that were the responsible person for a type five or six metering installation connected to the LNSP's network will be deemed to be the Metering Coordinator for that connection point.<sup>163</sup> This deeming arrangement was provided for in the Competition in Metering final rule because of the very large number (millions) of customers outside of embedded networks with type five and six meters that would otherwise need their respective FRMPs to appoint metering coordinators.

However, this deeming arrangement is not necessary in any other circumstance. Under the Competition in Metering final rule, after 1 December 2017, when a customer changes retailer or a new connection is established, the FRMP will be responsible for appointing the metering coordinator. This will allow the FRMP to appoint the metering coordinator that is able to provide the services that the customer desires on the best possible terms and conditions.

Given the relatively small number of existing on-market embedded network customers with type five or six meters the Commission does not consider it is necessary to apply a similar deeming arrangement to these customers. Instead, under the final rule, the FRMP of the respective connection points will need to appoint a metering coordinator to provide the services with effect from 1 December 2017. In many cases, it is likely that the FRMP and LNSP will agree that the LNSP will continue to provide metering services for that connection point, but it is more appropriate for that appointment to be commercially agreed than deemed on terms set out in the NER.

The Commission considers that the nine month period between finalisation of the metering coordinator accreditation procedures (under the Competition in Metering final rule) and commencement is sufficient time for the respective FRMPs to appoint metering coordinators for these customers.

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161 Submissions from: ENA, 22 October 2015, p.3; AusNet Services, 22 October 2015, p.6; and United Energy, 22 October 2015, p.1.

162 Submissions from: ENA, 22 October 2015, p.3; AusNet Services, 22 October 2015, p.6; and United Energy, 22 October 2015, p.1.

163 Clause 11.86.7 of the NER.

## **C.2.7 Embedded network operators access to data**

### **AEMO proposal**

AEMO's proposed rule granted embedded network operators access to energy data, NMI Standing Data, settlements ready data or data from the metering register for a metering installation within its embedded network.<sup>164</sup>

### **Submissions and draft rule determination**

AusNet services submitted that there is a gap in the proposed obligations on embedded network operators to maintain confidentiality of information.<sup>165</sup>

The draft rule allowed embedded network operators access to metering data, NMI standing data, settlements ready data or data from the metering register for a metering installation for each child connection point within its embedded network upon commencement of the embedded network management framework on 1 December 2017.<sup>166</sup>

The SCCA supported the requirement set out in the draft rule determination. It proposed that the requirement should be extended to start immediately and also apply to the parent connection point. The SCCA considered this was important because access to metering data better enables embedded network operators to address billing issues within embedded networks.<sup>167</sup>

AusNet Services opposed the requirement in the draft rule. It submitted that embedded network operators do not appear to have a legitimate need for this data and that they are not required to meet the same confidentiality obligations as registered participants and accredited providers and therefore should not be able to access it.<sup>168</sup>

### **Commission's analysis**

Section 6.2.1 sets out the two ways that on-market embedded network customers may be supplied network and energy services. Under one method on-market embedded network customers pay the embedded network operator for network services and the retailer for energy services separately. Under the second method, on-market embedded network customers pay the retailer for both network and energy services, and the embedded network operator bills the retailer for network services. Under both methods embedded network operators need access to metering data to allow them to bill for network services. The final rule therefore grants embedded network operators

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<sup>164</sup> AEMO, National Electricity Rule Change Request – Appendix A: Draft Rule, September 2014, p.10.

<sup>165</sup> AusNet Services submission, 2 July 2015, p.5.

<sup>166</sup> AEMC, Draft National Electricity Amendment (Embedded Networks) Rule 2015, p.8.

<sup>167</sup> SCCA submission, 22 October 2015, p.8.

<sup>168</sup> AusNet Services submission, 22 October 2015, p.12.

access to metering data for child connection points within their networks from 17 December 2015.

The Commission considers that the confidentiality issues raised by AusNet services are, if necessary, most appropriately addressed by the AER through the network exemption guideline. This is because as exempt providers, embedded network operators do not fall within the confidentiality provisions in the NER. Embedded network operators already have access to such data for all off-market embedded network customers in their role as metering provider and retailer, and are bound by appropriate confidentiality requirements relating to both on and off-market customers' metering data set out in the exemption guidelines. To the extent such data is confidential, embedded network operators will also be bound by general laws of confidence.

The final rule does not specifically grant embedded network operators access to metering data at the parent connection point as proposed by the SCCA. Under clause 7.7(a)(7) of the NER embedded network operators are already able to access such data as the customer at the parent connection point.<sup>169</sup>

#### *Changes from draft to final*

The final rule removes the embedded network operators' access to NMI standing data, settlements ready data or data from the metering register. As set out above, embedded network operators need metering data to allow them to bill for network services but do not need this additional data.

The final rule allows embedded network operators access to metering data at a child connection point from 17 December 2015, rather than from 1 December 2017 (as set out in the draft rule). This data will facilitate efficient billing within embedded networks under the current arrangements, as well as after the commencement of the new embedded networks framework, and access is therefore granted immediately.

To facilitate this access, the final rule commences key definitions relevant to the embedded network framework on 17 December 2015. The definition of small customer and an amended definition of large customer are included in the definitions commenced. The definition of 'large customer' has been amended since that inserted in the NER by the Competition in Metering final rule in the interests of clarity.

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<sup>169</sup> Where the embedded network operator is acting on behalf of the parent connection point customer to run the embedded network it can still gain access to this data as an authorised representative of the customer under clause 7.7(a)(7)(ii) of the NER, assuming the parent connection point customer provides such authorisation.

## **C.2.8 B2B procedures**

### **AEMO proposal**

AEMO proposed that:<sup>170</sup>

- as part of the proposed rule, embedded network managers be included in the list of parties who have roles and responsibilities under the B2B Procedures and that they be required to comply with these procedures; and
- as part of the transitional arrangements for implementation of the rule in a timely manner, it be required to amend various of its procedures, including the B2B procedures (in accordance with a recommendation from the Information Exchange Committee (IEC)).

However, AEMO did not propose that embedded network managers be required to use the B2B hub, be included as a member of the IEC, or to allow embedded network managers to be able to submit proposals for changes to the B2B Procedures. Effectively, this would allow the IEC to recommend changes to the B2B procedures to incorporate embedded network managers, without being required to receive any input from embedded network managers as to the content of such procedures, with which they will be bound.

### **Submissions and draft rule determination**

Stakeholders supported AEMO's proposal for changes to B2B Procedures and that embedded network managers be bound by those procedures.

The draft rule identified embedded network managers as parties who can have roles, responsibilities and obligations under the B2B Procedures. In addition, the draft rule included embedded network managers in the B2B definitions that are relevant for the making of B2B procedures.

No submissions to the draft rule determination addressed the proposed B2B changes.

### **Commission's analysis**

The final rule is consistent with AEMO's proposal and the draft rule. Embedded network managers are to be included in the list of parties who have roles and responsibilities under the B2B Procedures. Embedded network managers will be bound by these procedures. The final rule also contains transitional provisions requiring the IEC to develop a recommendation to develop amendments to the B2B Procedures to take account of the final rule, and for AEMO to make such amendments, in anticipation of and prior to the commencement of the new embedded network framework.

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<sup>170</sup> AEMO, National Electricity Rule Change Request – Embedded Networks, September 2014, p.13.

To remove any doubt that the IEC has the ability to make procedures that include and bind embedded network managers, the final rule makes consequential amendments to the B2B definitions that are key for the making of B2B procedures:

- B2B Communications, such communications being the subject of the B2B procedures; and
- B2B Objective and B2B Principles, as both of these definitions guide the IEC's decision making processes.

Each definition has been amended by the final rule to include embedded network managers. While these definitions will be subject to consideration as part of the Updating the Electricity B2B Framework rule change, the Commission considers that the changes made to the above definitions, and balance of the B2B framework, were necessary in the interim.

The Commission did not consider it necessary to require embedded network managers to use the B2B hub. There is nothing in the current provisions in the NER that will prevent embedded network managers from using the hub if the B2B Procedures so require. If embedded network managers use the B2B hub, they will need to do so in accordance with the B2B Procedures. In addition, participants can currently opt out of B2B arrangements and instead enter bilateral information sharing arrangements outside of this arrangement. It is important to leave this possible avenue of communication open.

Broader changes to the B2B procedure provisions have not been included in the final rule. For example, embedded network managers have not been specifically included in the membership of the IEC, nor has provision been made for embedded network managers to propose changes to the B2B Procedures. Such changes would require consideration to be given the B2B governance framework more generally. The Commission has not considered such changes in this rule change process. The changes that have been included in the final rule are appropriate for the circumstances for the following reasons:

- B2B Procedures govern the information exchange between market participants in relation to consumers who are currently market facing. DNSPs and retailers are therefore likely to be best placed to consider the relevant requirements to be addressed in a B2B Procedure to facilitate an off-market child in an embedded network becoming on-market. In fact, it is likely that most service orders under B2B Procedures to facilitate retail contestability on an embedded network will be at a retailer's instigation.
- While existing IEC market members are empowered under the NER to take their own interests into account (as a whole) when exercising a relevant IEC right, power or discretion, this is subject to the B2B Objective and the B2B Principles. Both the objective and the principles are to be amended to include embedded network managers. Therefore the interests of embedded network managers as a whole will need to be taken into consideration by all members of the IEC.

- The interests between embedded network managers as a whole, and those of DNSP or local retailers, are likely to be sufficiently aligned. Given the limited scope of the embedded network manager role, it is unlikely that any of the existing market members would have a competitive, or other, interest in creating B2B Procedures that may be disadvantageous to embedded network managers.
- There is nothing to prevent the IEC from seeking input from embedded network managers to the extent the IEC may consider that to be necessary. Embedded network managers are allowed to be present at IEC meetings and the IEC could invite embedded network managers to any relevant IEC or working group meetings.

Consideration of what broader changes may be necessary to the B2B governance framework, in light of the new embedded network manager role, should be considered as part of a broader review of B2B governance. The AEMC published a consultation paper on the Updating the Electricity B2B Framework rule change on 17 December 2015, which is a more appropriate forum for such issues.<sup>171</sup>

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<sup>171</sup> See AEMC, Consultation paper, Updating the Electricity B2B Framework, 17 December 2015.

## **D Summary of AER network and retail exemption guidelines**

### **D.1 Who requires an exemption?**

Under the NEL and NERL, NSPs and all energy sellers are required to register in the NEM<sup>172</sup> or be exempted from authorisation by the AER.<sup>173</sup>

The definition of NSP is very broad. No matter how small the network, anyone that supplies electricity to another person over a network of any kind is providing a network service. An exemption from the AER is required for such a party to be unregistered, be that party a legal person, corporation, government department or statutory body of any kind.

Similarly, 'energy selling' covers a wide range of activities, from energy retailing by authorised (licensed) retailers to landlords recovering energy costs from their tenants. Energy sales do not necessarily have to be for profit – simply passing on energy costs to another person is considered to be a sale. Nor are energy sales limited by the parties involved. For example, they include sales to residential homes or other places of residence (for example, a caravan park where residents permanently reside), shopping centres and commercial sites.

The broad definitions of NSP and 'energy selling' mean that almost all embedded network operators, even those for very small networks, will be required to either register and be authorised as NSP and retailer respectively, or seek an exemption from both, NSP and retailer.

### **D.2 Categories of exemptions**

The AER's network and retail exemption guidelines outline three categories of exemptions to being registered as a NSP and authorised as a retailer: deemed, registrable and individual. Each category has a different set of eligibility requirements. Notably:

- small networks are generally eligible for a deemed exemption. These do not require application or registration with the AER, but the exempt party must still comply with the conditions of the exemption, which vary depending on the type of embedded network;
- larger networks are generally required to register with the AER as a specific type of registrable embedded network to provide the AER with greater awareness and oversight of these networks; and
- larger networks which do not fit within one of the specified types of registrable embedded networks must seek an individual exemption from the AER.

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<sup>172</sup> NEL, s. 11(2)(a) and NER, clause 2.5.1(a).

<sup>173</sup> NEL, s. 11(2)(b) and NER, clause 2.5.1(d) and NERL, s. 88.

Tables D1-5 set out the network exemptions by class of exemption, under the AER's current network exemption guideline.

**Table D1: Deemed classes of exemption - energy selling**

<b>Class</b>	<b>Activity</b>	<b>Deemed exemption applicable to:</b>
ND1	Persons selling metered energy to fewer than ten small commercial/retail customers within the limits of a site that they own, occupy or operate	Current and future sellers
ND2	Persons selling metered energy to fewer than ten residential customers within the limits of a site that they own, occupy or operate	Current sellers and sellers who commence operation prior to 1 January 2015 and from 1 January 2015 holders of a retail exemption
ND3	Persons selling metered energy to occupants of holiday accommodation on a short-term basis	Current sellers and sellers who commence operation prior to 1 January 2015 and from 1 January 2015 holders of a retail exemption
ND4	DELETED	DELETED
ND5	Unmetered supply via plug-in or rack mounted equipment in any premises	All situations
ND6	Persons selling unmetered electricity to small customers in Queensland	Current sellers and sellers who commence operation prior to 1 January 2015 and from 1 January 2015 holders of a retail exemption
ND7	DELETED	DELETED
ND8	Persons selling energy to a related company	Current and future sellers
ND9	Persons selling energy to customers in conjunction with, or ancillary to, the provision of telecommunications information services	Current and future sellers
ND10	Government agencies, other than housing authorities, selling metered energy to non-residential customers	Current and future sellers

Note: Classes of exemption labelled 'ND\_' are 'network deemed' classes. Classes ND1 through ND10 (but not ND5) are aligned to the retail exemption guideline. The activity description and application criteria in this table are indicative only. Applicants should refer to the retail exemption guideline to determine eligibility for a deemed exemption.

Note: Where the customers within a private network in New South Wales, South Australia or Victoria seek access to full retail competition the exemption will be registrable, not deemed. The applicable class of exemption is table 4, class NRO5.

Source: AER, Electricity Network Service Provider Registration Exemption Guideline, August 2013, p.18.

**Table D2 – Deemed classes of exemption – other situations**

<b>Class</b>	<b>Activity</b>	<b>Deemed exemption applicable to:</b>
NDO1 174	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 solar energy system providers	Energy generation installations not intended to supply network support or demand management services to the NEM and not otherwise required to be registered with AEMO <sup>175</sup>
NDO2	Sites broadcasting television and radio signals	Current and future facilities
NDO3 176	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.)	Current and future facilities
NDO4	Temporary supply for the construction and commissioning phase of building, civil, construction industrial, transport, mining or other projects	Incidental supply to facilitate bona fide construction and commissioning of new facilities on the same or an adjoining site
NDO5	Electric traction systems supplying passenger or freight vehicles and associated infrastructure (i.e. rail networks) but not including commercial and/or retail activities	Current and future facilities
NDO6 177	Large corporate entities	Current and future facilities
NDO7	Residential, commercial and industrial sites where demand-side participation equipment and facilities is installed, including the owners and operators of the equipment and facilities	Current and future facilities

Notes: Classes of exemption labelled 'NDO\_' are 'network deemed other' classes, and have no equivalent class in the retail exemption guideline. Eligibility for a network deemed exemption is set out in this table. The supply of network services in accordance with a commercial agreement between private parties is permitted for each category listed in Table 2.

Notes: Simply owning a generator or solar inverter does not automatically mean exemption of your network is required. Exemption of the network is required only where a third party is involved. For example, a shopping centre will have tenants and often, a generator. The network must be exempted because of the supply to third parties, not because it has a generator. If the generator belongs to someone else, however, then the network must be exempted.

Notes: jurisdiction specific regulations exist which impose additional requirements on the installation of generators. Even if it is your network and it is your generator connected to the network you must still comply with the local safety requirements. Contact your local distributor for details.

Source: AER, Electricity Network Service Provider Registration Exemption Guideline, August 2013, p.19.

<sup>174</sup> This class applies only to the network to which the generator is connected. Generator registration and exemptions are handled by AEMO. Safety requirements are determined by each jurisdiction.

<sup>175</sup> If you have a contract or agreement to supply network support or demand management services based on a generator or inverter you must register under the appropriate class (NRO1) of Table 4.

<sup>176</sup> Note that no exemption is required if the charging facility is directly connected to a distributor.

<sup>177</sup> A 'large proprietary company' as defined under clause 45A(3) of the Corporations Act 2001.

**Table D3 – Registrable classes of exemption – energy selling**

<b>Class</b>	<b>Activity</b>	<b>Registrable exemption</b>	<b>Application for individual exemption</b>
NR1	Persons selling metered energy to ten or more small commercial/retail customers within the limits of a site that they own, occupy or operate	Registrable for current and future sellers	Only where exempt seller believes conditions of exemption are not appropriate for their situation
NR2	Persons selling metered energy to ten or more residential customers within the limits of a site that they own, occupy or operate	Registrable for current sellers and those who commence selling before 1 January 2015	Required for those who commence selling on or after 1 January 2015
NR3	Retirement villages selling metered energy to residential customers within the limits of a site that they own, occupy or operate	Registrable for sellers commencing selling before 1 January 2015	Required for those who commence selling on or after 1 January 2015
NR4	Persons selling metered energy in caravan parks, residential parks and manufactured home estates to residents who principally reside there	Registrable for current and future sellers	Only where exempt seller believes conditions of exemption are not appropriate for their situation
NR5	Persons selling metered energy to large customers	Registrable for current and future sellers	Only where exempt seller believes conditions of exemption are not appropriate for their situation
NR6	Persons selling metered energy to small customers at a site or premises adjacent to a site that they own, occupy or operate	Registrable for current and future sellers	Only where exempt seller believes conditions of exemption are not appropriate for their situation
NR7	Persons selling unmetered energy to small commercial/retail customers at a site that they own, occupy or operate	Registrable for current sellers, until 1 January 2015	The AER does not support unmetered energy sales to small customers

Notes: Classes of exemption labelled 'NR\_' are 'network registrable' classes. Classes NR1 to NR7 are aligned to the Exempt Selling Guideline. The activity description and application criteria in this table are indicative only. Applicants should refer to the Exempt Selling Guideline to determine eligibility for a registrable exemption.

Notes: For Class NR7, note that the AER does not support the sale of unmetered energy to small customers. The AER 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 5.2. Class NR7 excludes networks in Queensland that are deemed exempt under Class ND6 in Table 1.

Source: AER, Electricity Network Service Provider Registration Exemption Guideline, August 2013, p.20.

**Table D4 – Registrable classes of exemption – other situations**

<b>Class</b>	<b>Activity</b>	<b>Registrable exemption</b>	<b>Application for individual exemption</b>
NRO1 178	Off-market energy generation by equipment owned, operated or controlled by a third-party and connected to the NEM via a private electricity connection	Energy generation installations intended to supply network support or demand management services to the NEM	Only where exempt party believes conditions of exemption are not appropriate for their situation
NRO2 179	On-market energy generation by equipment owned, operated or controlled by a third-party and connected to the NEM via a private electricity connection	Energy generation installations required to be registered with AEMO under clause 2.5.2 of the NER	Only where exempt party believes conditions of exemption are not appropriate for their situation
NRO3	Ongoing supply to a mining or primary production facility and associated residential, commercial, industrial, processing and ancillary support facilities <sup>180</sup> in areas with restricted access to NEM supply	All bona fide installations, subject to demonstrable circumstances of remoteness from existing NEM supply infrastructure	Only where exempt party believes conditions of exemption are not appropriate for their situation
NRO4	Industrial, commercial and 'mixed-use' facilities but not including residential or energy generation activity and any activity listed in table 3. Includes the unmetered supply of energy under an agreed commercial scheme between large customers	All installations	Only where exempt party believes conditions of exemption are not appropriate for their situation
NRO5	Metered energy selling to customers in networks with metering infrastructure enabling access to full retail competition in a jurisdiction <sup>181</sup>	All installations	Only where exempt party believes conditions of exemption are not appropriate for their situation

Notes: Classes of exemption labelled 'NRO\_' are 'network registrable other' classes, and have no equivalent class in the Exempt Selling Guideline. Eligibility for a network registrable exemption is set out in this Table.

Source: AER, Electricity Network Service Provider Registration Exemption Guideline, August 2013, p.21.

<sup>178</sup> This class applies only to the network to which the generator is connected. Generator registration and exemptions are administered by AEMO. Safety requirements are determined by each jurisdiction.

<sup>179</sup> This class applies only to the network to which the generator is connected. Generator registration and exemptions are administered by AEMO. Safety requirements are determined by each jurisdiction.

<sup>180</sup> 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.

<sup>181</sup> This class applies only to private networks where customers have access to full retail competition via 'child' metering registered in accordance with applicable AEMO requirements. It does not apply where a customer arranges direct connection to a NEM registered network service provider or where customers within a network do not require access to full retail competition. In all other circumstances, table 1 or table 3 applies.

**Table D5 – Individual network exemption class**

<b>Class</b>	<b>Activity</b>	<b>Registrable exemption</b>	<b>Application for individual exemption</b>
NRI	Specific exemption of a network not otherwise described	All approved applications	Detailed application required

Notes: Exemption class 'NRI' is 'network registrable individual' exemption and has no equivalent in the Exempt Selling Guidelines. It applies to exemptions to individuals made in accordance with clause 2.5.1 of the NER.

Notes: The supply of network services in accordance with a commercial agreement between private parties is permitted for each class listed in Table 4, except class NRO5.

Source: AER, Electricity Network Service Provider Registration Exemption Guideline, August 2013, p.22.

### **D.3 Requirements under the network guideline**

The specific conditions that apply to each embedded network depend on the type of exemption required. The conditions relate to five key areas:

- safety;
- dispute resolution;
- network charging;
- metering; and
- access to retail market offers.

An overview of the exemption conditions relating to each of these is set out below. For more detail on the specific conditions and the applicability of each to the different categories of network exemption see the AER's network exemption guideline.<sup>182</sup>

#### *1. Safety*

All embedded networks must, at all times, be installed, operated and maintained in accordance with all applicable requirements (within the jurisdiction in which the network is located) for the safety of persons and property. This includes, where relevant, an industry code or guideline otherwise applicable to a network service provider providing similar services.

The exempt party is also required to co-operate with reasonable requests for information from LNSPs, maintain safety plans, be capable of load shedding in emergency situations and be capable of shutting down or disconnecting local generation in the event of loss of supply from the LNSP's network.

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<sup>182</sup> AER, *Electricity Network Service Provider Registration Exemption Guideline*, August 2013.

Where notified by a customer of the existence of a requirement to maintain supply for life support equipment ('life support customer'), the exempt party must promptly notify the LNSP of the existence of a life support requirement in accordance with the reasonable requirements of the LNSP. Further, the exempt party must not disconnect supply to a life support customer without making arrangements for the safety of that life support customer.

### *2. Dispute resolution*

The exempt party must have in place dispute resolution procedures which customers can access at no cost or on a fee for service basis. The process must be of a type ordinarily applicable to disputes of the kind, be reasonably accessible, timely, binding on the parties to the dispute and not subject to excessive or unnecessary costs nor to costs disproportionate to the amount in dispute.

### *3. Network charging*

Network charges being passed through from the LNSP may be apportioned to each customer in an embedded network on a 'causer pays' basis in proportion to the metered energy consumption of each customer over the equivalent period. Alternatively the charges borne by each customer may be determined on a 'shadow price' basis. In this context a 'shadow price' requires charging each customer a tariff no greater than the tariff that would have applied had that customer obtained supply directly from the LNSP.

Network charges for the internal network are generally not permitted.

### *4. Metering*

All meters used for the measurement of electrical energy whether delivered to, or exported by, a customer must comply with the requirements of the *National Measurement Act 1960* (Cth) and regulations made under that Act for electricity meters and sub-meters and with the requirements set out in Schedule 7.2 of the NER.

### *5. Access to retail market offers*

In SA, Victoria and NSW the exempt party must not block customers accessing retail market offers. The exempt party must provide information regarding the parent NMI upon request, not impose unfair or unreasonable terms on the customer, and provide reasonable access to the customer's metering installation within the embedded network.

## **D.4 Requirements under the retail exemption guideline**

The specific conditions that apply to each embedded network depend on the type of exemption required. The conditions relate to five key areas:

- information requirements;
- dispute resolution;

- retail pricing;
- access to retail market offers; and
- consumer protections.

The conditions generally attempt to mirror the rights that embedded network customers would have if the exempt seller was subject to the NERL and NERR. An outline of the exemption conditions is set out below. For more detail on the specific conditions and the applicability of each to the different categories of exempt seller see the AER's retail guideline.<sup>183</sup>

#### *1. Information requirements*

The exempt seller is required to provide information to customers at the commencement of supply regarding the customers' access to retail markets, contact details for complaints and inquiries, the terms and conditions of the exemption and the rights the customer has within the exemption.

#### *2. Dispute resolution*

Where disputes arise the exempt seller must make reasonable endeavours to resolve the dispute and advise the customer of rights to access to energy ombudsman schemes and other relevant external dispute resolution bodies in the relevant jurisdiction.

#### *3. Retail pricing*

For small customers where access to retail market offers is not available, or is not cost-effective to provide, the price to that customer may not be higher than the standing offer price that would otherwise be charged by the local retailer.

#### *4. Access to retail market offers*

In SA, Victoria and NSW the exempt party must not discourage or prevent embedded network customers from accessing retail market offers. The exempt party must not: require a customer to waive their ability to choose a retailer, unreasonably hindering their efforts to find another retailer and unreasonably hindering any metering or network changes required to enable choice of retailer.

#### *5. Consumer protections*

The consumer protection conditions relate to a wide variety of issues, including:

- obligation to supply;
- provision of flexible payment options;
- regularity of bills;
- application of government concession and rebate schemes;

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<sup>183</sup> AER, *AER (Retail) Exempt Selling Guideline, Version 3*, April 2015.

- requirements for life support customers;
- termination of supply contracts;
- estimation of bills; and
- reasonably payment periods.

## E Summary of jurisdictional embedded network regulations

Table E.1 below sets out the jurisdiction specific legal instruments and policy positions that effect embedded network customer access to retail market offers in the NEM.

**Table E.1 Jurisdiction specific requirements**

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
ACT	<p>Full retail contestability was introduced in the ACT with effect from 1 July 2003. Under the terms of the relevant Ministerial declaration made under the Utilities Act 2000 (the Act), retail contestability for customers in an on-supply arrangement appears to be allowable (assuming consumption thresholds are met).</p> <p>However, the position is unclear because:</p> <ul style="list-style-type: none"> <li>• an ACT specific clause in AEMO's Metrology Procedures makes the position somewhat unclear, though the drafting of the clause seems to suggest that a separately metered child in an embedded network is allowable; and</li> <li>• the stated policy position referred to in MSATS does not appear</li> </ul>	<p>Under the Act, electricity services (which includes the distribution of electricity though an electricity network) cannot be provided except in accordance with a licence or Ministerial exemption.<sup>184</sup> The Act does not otherwise regulate embedded networks.</p> <p>In defining which customers are contestable (referred to as non-franchise customers), the relevant Ministerial declaration<sup>185</sup> provides for a methodology to determine such customers. The methodology:</p> <ul style="list-style-type: none"> <li>• includes customers occupying premises that are connected to 'a distribution system or transmission system through a common meter and which are supplied with electricity under the same contract, with one person responsible for payment for electricity so supplied'<sup>186</sup> – this effectively being an embedded network; and</li> </ul>

<sup>184</sup> Section 22(1) and (2) of the *Utilities Act 2000 (ACT)*.

<sup>185</sup> Utilities (Non-franchise electricity customers) Declaration 2003 (No1), made under the section 18 of the Act as in force on 1 July 2007, which at the relevant time stated: The Minister may, in writing, declare a person to be a non-franchise customer in relation to the supply of electricity, gas or water to premises.

<sup>186</sup> See clause 1(b) of the Declaration.

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
	to be supported by legal instruments.	<ul style="list-style-type: none"> <li>includes consumption of a person being supplied under a Resupply Arrangement.<sup>187</sup></li> </ul> <p>Clause 2.5.1 of the Metrology Procedure: Part A National Electricity Market, outlines variations in accordance with jurisdictional policy. Clause 2.5.1 also seems to foreshadow that a 'child' in an embedded network in the ACT can have a metering installation of its own, which would be necessary for retail contestability in an embedded network.<sup>188</sup> MSATS notes that 'the ACT and Tasmanian regulators have not approved the use of embedded networks in their respective jurisdiction.' However, no legal instrument in support of this position could be located.<sup>189</sup></p>
South Australia	Full retail contestability was introduced in South Australia with effect from January 2003. Retail contestability for customers in an on-supply arrangement is allowable.	The Electricity (General) Regulations 2012 (made under the Act) exempts an inset network operator or inset network retailer from holding a licence under the Act on the condition that inset customers are given 'an effective right of access to a licenced retailer of the customer's choice'. An inset network is effectively defined as being an embedded network. <sup>190</sup>

<sup>187</sup> Relevantly meaning an arrangement under which the costs of electricity can be passed on to others so long as the relevant premises are separately metered, the price didn't exceed what would otherwise would be chargeable directly to that customer and no other charge was levied in relation to the supply of that electricity: s. 98 of the *Utilities Act 2000*, as at 1 July 2003.

<sup>188</sup> Clause 2.5.1 – Australian Capital Territory: (1) The responsible person must ensure that the metering installation is not for a child in an embedded network. (2) Where the metering installation is for a child in an embedded network, the responsible person must ensure that additional metering is installed accordingly which ensure that the requirements of clause 2.5.1[ACT(1)] above met.

<sup>189</sup> MSATS Procedures: CATS Procedure Principles and Obligations v4.1, Note to Table 9-A.

<sup>190</sup> An inset network is defined to mean 'a transmission or distribution network that serves only a group of premises in the same ownership or community or strata title premises': clause 15(8), *Electricity (General) Regulations 2012*.

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
		<p>The regulations outline that the above effective right of access must allow a customer to choose its retailer, install and use meters or equipment for that purpose, without having to pay a charge to the operator of the private network for doing so.</p> <p>The framework has been extended to exempt sellers within the meaning of the NERL. That is, exempt sellers can only carry on operations as either an inset network operator or inset network retailer if inset customers are given 'an effective right of access to a licenced retailer of the customer's choice'.<sup>191</sup></p> <p>Clause 2.5.1 of the Metrology Procedure: Part A National Electricity Market reflects the above policy position. It allows for retail contestability in an embedded network, by outlining the responsible person's metering obligations for the child, in the event the child elects to purchase electricity from a retailer other than the parent's retailer. A responsible person is defined in Chapter 7 of the NER and in this case is presumably the LNSP at the parent connection point.<sup>192</sup></p>
Queensland	Full retail contestability was introduced in Queensland with effect from 1 July 2007. However, retail contestability for customers in an on-supply arrangement was excluded and provisions in the Electricity Act 1994 (the Act) reflect this position. Amendments to the Act, proposed as part of Queensland's implementation of	<p>The Act requires an on-supplier to be exempt from the requirement under clause 2.5 of the NER.<sup>194</sup> Neither the Act, nor the Electricity Regulation 2006 made under it, otherwise appear to explicitly regulate embedded networks.</p> <p>MSATS reflects the Queensland Government's current policy position</p>

<sup>191</sup> Clause 44B, *Electricity (General) Regulations 2012*.

<sup>192</sup> Clause 7.2.1(a).

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
	<p>NECF, leave these restrictions in place.</p> <p>The Queensland Government’s current policy position is that adopted in 2006:<sup>193</sup></p> <p>“Queensland will delay the introduction of Free Retail Competition (FRC) to customers in an on-supply arrangement until a national harmonised solution is introduced. NEMMCO (now AEMO) should continue to develop a national harmonised solution on embedded networks, including the allocation of responsible person to child customers. Queensland will adopt this national solution once the appropriate changes to the National Electricity Rules have been gazetted.”</p>	<p>on the creation of embedded networks that it:<sup>195</sup></p> <p>“QLD jurisdiction has not approved embedded networks for “small” consumers and determined that there will be no new embedded networks for “large” consumers.”</p> <p>The reference to ‘no new’ embedded networks for large customers recognises that a small number of embedded networks involving large, contestable customers were created prior to the commencement of full retail contestability in Queensland<sup>196</sup> on 1 July 2007.</p> <p>Under the Act, customers in an on supply arrangement are generally not ‘customers’ within the meaning of the term in the Act, but are ‘receivers’.<sup>197</sup> However, even if a customer in an on supply arrangement was a customer within the meaning of the Act, they are unlikely to be able to apply for retail services because their premises are not NMI premises, as defined in, and required by, the Act.<sup>198</sup></p>

<sup>194</sup> That is, the requirement to register as a NSP when owning, controlling or operating a distribution system.

<sup>193</sup> Energy Competition Committee Policy Decisions Paper No. 2: Electricity Full Retail Competition Final Policy Decisions, 26 July 2006.

<sup>195</sup> MSATS reflects the Queensland Government’s current policy position on the creation of embedded networks: Note to Table 9-A.

<sup>196</sup> Arrangements in place immediately before full retail contestability were grandfathered under Queensland Electricity Act 1994 s. 313. See: Queensland Department of Energy and Water Supply, Electricity On-Supply in Queensland, Discussion paper, 2013.

<sup>197</sup> A receiver is ‘a person who owns, occupies or has the right to use premises and to whom electricity is supplied, or supplied and sold, by an on-supplier for the premises.’ (s. 20). Section 23 of the Act sets out who can be a customer and the various customer types. Relevantly, a receiver is only a customer if the receiver’s premises has an electrical installation that, to the reasonable satisfaction of the distribution entity whose distribution area includes the premises, is capable of receiving supply directly from a distribution entity’s supply network (ss. 23(2)).

<sup>198</sup> These are defined as follows: 1) A premises, part of a premises or a group of premises is an NMI premises if – (a) it is, or is proposed to be, connected to a distribution entity’s supply network that is part of the national grid and the premises has, or is proposed to have, a connection point; or (b) it is, or is proposed to be, connected to a

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
Tasmania	<p>Full retail contestability was introduced in Tasmania with effect from 1 July 2014.</p> <p>While a policy position has been reflected in the MSATS noting retail contestability for customers in an embedded network is not allowed, there do not appear to be local instruments in place that support this position.</p>	<p>Under the Act, up until 1 July 2014, Aurora Energy was the only retailer able to supply all residential customers and small business customers on mainland Tasmania.<sup>199</sup></p> <p>However, this restriction on who may sell energy to customers does not apply to exempt sellers,<sup>200</sup> owners of caravan parks selling to its occupants, owners of a building selling to persons occupying part of the building and owners or managers of a shopping centre selling to tenants of the centre.<sup>201</sup> The intention of these provisions appear to provide for the exempt selling framework as it existed in Tasmania prior to NECF to operate unchanged. The drafting does not lend itself to an interpretation which would allow retail contestability for customers in an embedded network.</p> <p>The Act does not otherwise appear to explicitly regulate embedded networks.</p> <p>MSATS notes that ‘the ACT and Tasmanian regulators have not approved the use of embedded networks in their respective jurisdictions.’<sup>202</sup> However, no legal instrument in support of this position could be located.</p>

distribution entity’s supply network that is not part of the national grid and the premises has, or is proposed to have, a supply point for the delivery of electricity. 2) However, the term does not include premises of an excluded customer. See s. 48C(2) of the *Electricity Act 1994*.

<sup>199</sup> Electricity Supply Industry Act 1995 ss. 38, 38A. See clause 4 of the *Electricity Supply Industry (Customer) Regulations 2012* where a ‘contestable customer’ is defined.

<sup>200</sup> Section 38A(3).

<sup>201</sup> Section 38A(1) and (2); *National Energy Retail Law (Tasmania) Act 2012*, s. 23(2).

<sup>202</sup> MSATS Procedures: CATS Procedure Principles and Obligations v4.1, Note to Table 9-A.

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
New South Wales	Full retail contestability was introduced in NSW with effect from January 2002. Retail contestability for customers in an on-supply arrangement is allowable.	<p>The Act was amended in 2000 to introduce arrangements for introducing full retail contestability.<sup>203</sup> Among other things, the Act (at the time) established a regulatory regime for smaller customers (and removed the distinction between franchise and non-franchise customers) and provided for new market rules. The legislative framework necessary to effectively implement full retail competition was completed on 1 July 2001 under the 2000 amending Act by addressing arrangements for metering, customer transfer and the Electricity Tariff Equalisation Fund. No restrictions were placed on customers accessing retail competition.</p> <p>The Act does not otherwise appear to explicitly regulate embedded networks.</p> <p>Clause 2.5.1 of the Metrology Procedure: Part A National Electricity Market reflects the above policy position in allowing for retail contestability in an embedded network by outlining the responsible person's metering obligations for the child, in the event the child elects to purchase electricity from a retailer other than the parent's retailer. A responsible person is defined in Chapter 7 of the NER<sup>204</sup> and in this case is presumably the LNSP at the parent connection point.</p>
Victoria	Full retail contestability was introduced in Victoria with effect from January 2002. Retail contestability for customers in an on-supply arrangement is allowable.	Under the Electricity Industry Act 2000 (Victoria) (the Act), there is a prohibition on generating, transmitting, distributing or retailing electricity without a licence. <sup>205</sup> Exemptions from licencing can be made by way of an Order in Council. A current Order in Council <sup>206</sup> exempts the

<sup>203</sup> *Electricity Supply Amendment Act 2000.*

<sup>204</sup> *Electricity Supply Amendment Act 2000.*

<sup>205</sup> Section 16(1).

<sup>206</sup> Made with effect from 1 May 2002.

Jurisdiction	Position in relation to retail competition in embedded networks	Summary of relevant local or other legal instruments
		<p>distribution and supply of, and sale of,<sup>207</sup> metered electricity<sup>208</sup> in embedded networks from licensing on a number of conditions.</p> <p>In relation to distribution and supply of electricity in embedded networks, the exemption granted does not apply to existing or new premises, if the premises are structured in such a way as to have the effect of denying a licenced retailer the ability to sell electricity to a customer with an approved meter.</p> <p>In relation to the sale of metered electricity in a embedded network, an express condition of the exemption includes:</p> <p style="padding-left: 40px;">“in the case of the sale of electricity to a large business customer or a small business customer, the exempt person must, when it commences selling electricity to the customer, inform the customer in writing that it may have the right to elect to purchase electricity from a licensed retailer of its choice.”</p> <p>Clause 2.5.1 of the Metrology Procedure: Part A National Electricity Market reflects the above policy position in allowing for retail contestability in an embedded network, by outlining the responsible person’s metering obligations for the child, in the event the child elects to purchase electricity from a retailer other than the parent’s retailer. A responsible person is defined in Chapter 7 of the NER (Clause 7.2.1(a)) and in this case is presumably the LNSP at the parent connection point.</p>

<sup>207</sup> Order in Council, 1 May 2002, Schedule Part A, clause 2.

<sup>208</sup> Order in Council, 1 May 2002, Schedule Part A, clause 3.

## F NERR issues for embedded networks

This appendix sets out a number of possible issues in the NERR related to embedded networks.

**Table E.1 NERR issues for embedded networks**

Relevant aspect of the retail framework	Overview	Issues arising
Customer classification	<p>For the purposes of the NERL, a customer on an embedded network is likely to be considered a customer with the meaning of the NERL<sup>209</sup> and is likely to fall within the definitions of both a small customer and a residential customer.<sup>210</sup></p> <p>The framework for classifying customers is set out in Part 1, Division 3 of the NERR. Under this framework, the retailer will need to classify the customer. There is no ‘corresponding distributor’ for the purposes of the classification framework, the ‘distributor’ in this case being the owner/operator of the embedded network. However, these rules will still be relevant the extent that the customer makes application for re-classification.</p>	<ul style="list-style-type: none"> <li>• Are any amendments to this classification framework necessary to take account of retail contestability in embedded networks (especially as customers in embedded networks are not ‘shared’ between retailers and distributors)?</li> </ul>
Standing retail offers and contracts	<p>Under s22(5) of the NERL a designated retailer is not obliged to make a standing offer to a small customer if the customer’s premises are not, or are not proposed to be, connected to a distributor’s distribution system.</p> <p>The premises of a customer in an embedded network are not connected directly to the distributor’s distribution system. The obligation to supply is unlikely to extend to customers in an embedded network. The AER’s retail exemption guideline effectively replicates this obligation for such customers, by obliging the holder of the exemption to supply a customer</p>	<ul style="list-style-type: none"> <li>• Should the existing standing offer and contract framework be extended to customers in an embedded network seeking to go on-market?</li> <li>• Should a purpose specific Standard Retail Contract (SRC) be developed for inclusion in the NERR as a</li> </ul>

<sup>209</sup> A customer is a person to whom energy is sold for premises by a retailer or who proposes to purchase energy for premises from a retailer (s. 5(1) NERL). Premises is not defined in the NERL or NERR. Its plain English meaning is usually a house, building, site or place which will capture the premises associated with a customer on an embedded network.

<sup>210</sup> Assuming they purchase energy principally for personal, household or domestic use at premises and consume below relevant consumption thresholds: s. 5(2) NERL)

Relevant aspect of the retail framework	Overview	Issues arising
	<p>who meets the criteria for the exemption class.</p> <p>A retailer can only provide customer retail services to small customers under either a SRC or a MRC.<sup>211</sup></p>	<p>separate schedule for such customers?</p> <ul style="list-style-type: none"> <li>Is the Market Retail Contract (MRC) framework sufficient for making retail offers to customers in an embedded network seeking to go on market?</li> </ul>
Market retail offers and contracts	<p>Under the existing retail framework, there is no barrier to a retailer making a market retail offer to a customer in an embedded network seeking to go on-market.</p> <p>Section 33 of the NERL provides:</p> <p><i>A small customer and a retailer may, subject to and in accordance with this Division and section 147, negotiate and enter into a market retail contract for the provision of</i></p> <p><i>(a) customer retail services; and,</i></p> <p><i>(b) any other services, as agreed between the small customer and the retailer.</i></p> <p>However, a retailer will need to ensure that the MRC is not inconsistent with the applicable minimum requirements set out in the NERR.<sup>212</sup> MRCs can also deal with other things so long as the rules do not prohibit such things being dealt with in the contracts.<sup>213</sup></p> <p>“Subject to and in accordance with this Division” means that any MRC offered to a small</p>	<ul style="list-style-type: none"> <li>Are any amendments to the MRC framework necessary to take account of retail contestability in embedded networks?</li> <li>Are the current minimum requirements set out in the NERR relevant to customers on embedded networks? Are there any additional requirements? Should the application of any of these requirements be amended as they relate to customers in an embedded network seeking to go on market?</li> </ul>

<sup>211</sup> Section 20 NERL.

<sup>212</sup> Section 34(2) NERL which provides the NERR may set out (a) minimum requirements that are to apply in relation to small customers who purchase energy under a market retail contract; and (b) minimum requirements that are to apply in relation to the terms and conditions of market retail contracts.

<sup>213</sup> Section 34(3) of the NERL.

Relevant aspect of the retail framework	Overview	Issues arising
	<p>customer will need to meet “minimum requirements”. The terms and conditions of a MRC have no effect to the extent they are inconsistent with any minimum requirements, and the minimum requirements are to apply to the extent of the inconsistency (unless the terms and conditions provide for a higher level of service to the customer).<sup>214</sup></p> <p>To be able to offer a valid MRC to a customer on an embedded network, a retailer will need to comply with the minimum requirements set out in the NERR. If it cannot meet these requirements, the retailer will have the following options:</p> <ul style="list-style-type: none"> <li>a) not offer a MRC at all if it cannot meet the minimum requirements;</li> <li>b) offer a MRC which meets the ‘spirit’ of the minimum requirements so as to avoid inconsistency; and</li> <li>c) offer a MRC which contains terms and conditions that are better than the minimum requirements in.</li> </ul> <p>A range of minimum requirements may give rise to issues in the context of customers on embedded networks and these are discussed below.</p>	
<p><b>Minimum requirement:</b> Pre-contractual duty of retailers <b>(NERR rule 16)</b></p>	<p>This rule applies where a retailer is contacted by a small customer who is seeking to purchase energy for premises.</p> <p>The rule outlines the obligations for a retailer who is ‘the designated retailer for the premises’ and for the retailer who isn’t.</p> <p>Under the NERL, a designated retailer is defined in terms of where there is and isn’t an existing connection in relation to a small customer’s premises. Connection is defined as being a ‘physical link between a distribution system and a customer’s premises to allow for the flow</p>	<ul style="list-style-type: none"> <li>• Is a pre-contractual duty of retailers, of the kind provided for under this rule necessary for customers on embedded networks, especially as they are cannot (currently) access standing offers?</li> </ul>

<sup>214</sup> Section 36 of the NERL.

Relevant aspect of the retail framework	Overview	Issues arising
	<p>of energy'. There is no physical link between the premises of a customer on an embedded network and the distribution system.</p> <p>Therefore, at pre-contractual stage, there cannot be either a designated or financially responsible retailer for a customer who is seeking to go on market.<sup>215</sup></p>	
<p><b>Minimum requirement:</b> Contents of bills</p> <p>NERR rule 25</p>	<p>This rule requires a retailer to prepare a bill so that a small customer can easily verify that the bill conforms to their customer retail contract. It outlines what it must include: Relevantly, the bill must include:</p> <p><i>(a) tariffs and charges applicable to the customer;</i></p> <p><i>(b) the basis on which tariffs and charges are calculated;</i></p> <p><i>(c) a separate 24 hour telephone number for fault enquiries and emergencies, the charge for which is no more than the cost of a local call, being the telephone number for the distributor and giving the name of the distributor.</i></p> <p>This rule is classified as a civil penalty provision.</p>	<ul style="list-style-type: none"> <li>• In its current form, strict compliance with this rule may be difficult, depending on the arrangements in place between a retailer and the operator of an embedded network. What amendments are necessary?</li> <li>• Further, contact details of the operator of an embedded network may be more relevant to a customer on an embedded network seeking to go on market. What other changes will be of assistance to customers in embedded networks seeking retail contestability?</li> </ul>
<p><b>Minimum requirement:</b> Tariffs and charges</p> <p>NERR rule 46</p>	<p>This rule provides relevantly:</p> <ol style="list-style-type: none"> <li>1. <i>A retailer must set out in a market retail contract with a small customer all <u>tariffs and charges</u> payable by the customer..</i></li> <li>2. <i>The retailer must give notice to the customer of any variation to the <u>tariffs and charges</u> that affects the customer.</i></li> </ol>	<ul style="list-style-type: none"> <li>• In its current form, strict compliance with this rule may be difficult, depending on the arrangements in place between a retailer and the operator of an embedded network. What amendments are necessary?</li> </ul>

<sup>215</sup> However, once a customer on an embedded network goes on market, the retailer that accepts that customer will; then be the 'financially responsible retailer', this being "the retailer who is the financially responsible Market Participants responsible for the premises under the NER".

Relevant aspect of the retail framework	Overview	Issues arising
	<p>3. <i>The notice must be given as soon as practicable, and in any event no later than the customer's next bill.</i></p> <p>4. <i>The retailer must set out in the market retail contract the obligations with regard to notice that the retailer must comply with where the <u>tariffs and charges</u> are to be varied.</i></p>	
<p><b>Minimum requirement:</b> Liabilities and immunities</p> <p>NERR rule 51</p>	<p>This rule prohibits a retailer from including any term or condition in a MRC with a small customer that limits the liability of the retailer for breach of the contract or negligence by the retailer. This rule is classified as a civil penalty provision.</p>	<ul style="list-style-type: none"> <li>• Is such a prohibition still relevant in the embedded network context? Are any amendments necessary?</li> </ul>
<p>Move-in customer or carry over customer</p>	<p>The NERL deems particular arrangements between the financially responsible retailer and a move-in or carry-over customer.<sup>216</sup></p> <p>Once a customer on an embedded network goes on market, the relevant premises will be assigned a NMI and have a retailer that is financially responsible for those premises (currently). Such premises could therefore be subject to the move in or carry over arrangements.</p> <p>These arrangements are premised on the basis of the SRC and standing offer framework set out in the NERL (see above).<sup>217</sup></p>	<ul style="list-style-type: none"> <li>• Should the move-in or carry-over customer arrangements apply in the situation of an on-market customer in an embedded network?</li> <li>• How should such arrangements apply (if at all)? What changes will be necessary?</li> <li>• Can this issue be addressed through other means?</li> </ul>

<sup>216</sup> Section 54(1) NERL. Carry-over customer means a small customer who continues consuming energy at premises after the customer's previously current customer retail contract expires or terminates: (a) without provision in that contract for the terms and conditions to apply after expiry or termination for the continued provision of those services; and without applying to a retailer for the provision (after that expiry or termination) of those services. Move-in customer means a small customer who starts consuming energy at premises without first applying to a retailer for the provision of customer retail services, including rules 53 and 54 of the NERR.

<sup>217</sup> Including rules 53 and 54 of the NERR.

Relevant aspect of the retail framework	Overview	Issues arising
De-energisation and re-energisation of shared customer's premises	<p>The NERR provides for a how premises can be de-energized (disconnected). A retailer is prohibited from arranging de-energisation of a customer's premises except in accordance with Division 2 of Part 6. This division applies to MRCs and is premised on the basis that the retailer arranges disconnection with a distributor. However, it is the owner of the embedded network that will be responsible for disconnection.</p> <p>Division 4 of Part 6 relates to re-energisation and also applies to MRCs. It, like de-energisation, is premised on the basis that the retailer arranges re-energisation with a distributor. However, it is the owner of the embedded network that will be responsible for re-energisation.</p> <p>These rules are classified as a civil penalty provisions.</p>	<ul style="list-style-type: none"> <li>• What arrangements need to be in place for the de-energisation and re-energisation of premises of customers in embedded networks who are on-market?</li> <li>• Is there a gap in existing arrangements (including various conditions to exemptions that may be in place) for customers on an embedded network seeking to go on market?</li> </ul>
Life support equipment	<p>The NERR provides for various retailer obligations in relation to life support equipment.<sup>218</sup> Many of these obligations require notification to a distributor. However, it is the owner of the embedded network that has similar responsibilities to that of a distributor in relation to life support equipment, which obligations are usually addressed in conditions applying to the exemptions held by embedded network owners.</p> <p>The rule applies to any MRC and is a civil penalty provision.</p>	<ul style="list-style-type: none"> <li>• What arrangements need to be in place for life support equipment for customers in embedded networks who are on-market?</li> <li>• Is there a gap in existing arrangements (including various conditions to exemptions that may be in place)?</li> </ul>
Retailer of last resort (RoLR)	<p>Under the NERL the contractual arrangements for small customers and the relevant designated RoLR are the terms and conditions of the designated RoLR's standard retailer contract.<sup>219</sup> The prices that are applicable are the relevant designated RoLR's standing offer</p>	<ul style="list-style-type: none"> <li>• What arrangements should be in place for customers in embedded networks who are on-market in the event of</li> </ul>

<sup>218</sup> NERR rule 124

<sup>219</sup> Section 145(3) NERL

Relevant aspect of the retail framework	Overview	Issues arising
	<p>prices.<sup>220</sup> That is, the current RoLR arrangements are premised on the basis of the SRC and standing offer framework set out in the NERL (see above).</p> <p>Currently, the retail exemption guideline makes little provision for the eventuality of exempt seller failure.</p>	<p>retailer failure?</p> <ul style="list-style-type: none"> <li>• Is there a gap in existing arrangements (including various conditions to exemptions that may be in place)?</li> <li>• Should these gaps be addressed in the retail framework? Are there other avenues (e.g. network service provider exemptions)?</li> <li>• Are there other gaps in the RoLR arrangements arising in relation to customers in embedded networks who are on-market in the event of retailer failure (e.g. RoLR regulatory information notices)?</li> </ul>
Presentation of market offer prices	<p>Under the NERL a retailer must present (and publish on its website) its market offer prices (including any variation of those prices) in accordance with the AER's Retail Pricing Information Guidelines.<sup>221</sup></p> <p>Market offer prices are the tariffs and charges that a retailer charges a small customer for or in connection with the sale of energy to a small customer under a market retail contract.</p>	<ul style="list-style-type: none"> <li>• Depending on the arrangements in place between a retailer and the operator of an embedded network, a retailer may not necessarily be able to present any offer to customers on embedded networks in accordance with such requirements. What requirements should be in place for the presentation of such offers? Are</li> </ul>

<sup>220</sup> Section 145(4) NERL.

<sup>221</sup> Section 61 NERL.

Relevant aspect of the retail framework	Overview	Issues arising
		the AER Guidelines able to sufficiently address this?
Explicit informed consent (EIC)	<p>Currently the entry by the customer into a market retail contract with the retailer is a transaction that needs EIC.<sup>222</sup></p> <p>As customers in embedded networks seeking to go on market are likely to be offered MRCs (subject to any change to the SRC framework- see above) EIC will be necessary for the entry into such contracts.</p>	<ul style="list-style-type: none"> <li>• Are the current EIC requirements appropriate?</li> </ul>

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222 Section 38 NERL.