

GUIDE TO EMBEDDED NETWORKS

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VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
1.0		First Issue Document incorporates: <ul style="list-style-type: none">• National Electricity Amendment (Expanding competition in metering and related services) Rule 2015. No.12;• National Electricity Amendment (Embedded Networks) Rule 2015 No. 15; and• National Electricity Amendment (Meter Replacement Processes) Rule 2016 No. 2.
1.1		Minor updates to formatting and wording

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1. INTRODUCTION

1.1. Purpose and Scope

This Guide to Embedded Networks (**Guide**) is made under clause 7.16.6B of the NER.

This document has effect only for the purposes set out in the NER. The NER and the National Electricity Law prevail over this document to the extent of any inconsistency.

1.2. Definitions and Interpretation

The Retail Electricity Market Procedures – Glossary and Framework:

- (a) is incorporated into and forms part of this Guide; and
- (b) should be read with this Guide.

1.3. Related AEMO Documents

Title	Location
Retail Electricity Market Procedures – Glossary and Framework	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Glossary-and-Framework
Service Level Procedure (ENM)	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Metering-procedures-guidelines-and-processes
MSATS Procedures	http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Retail-and-metering/Market-Settlement-and-Transfer-Solutions
Qualification Procedure (MPs, MDPs, & ENMs)	https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/Accreditation/Qualification-Procedure-MP-MDP-ENM.pdf
Accreditation Checklists	https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/Accreditation/Accreditation-Checklists.pdf

1.4. About this Guide

This Guide includes information on:

- (a) the nature of exemptions granted by the *AER* in respect of *embedded networks*;¹
- (b) which *retailers* and other persons can sell electricity to End Users *supplied* with electricity through *embedded networks*; and
- (c) the roles, responsibilities and obligations of ENMs under the NER and procedures under the NER.

This Guide provides information only and is not a substitute for the *AER*'s guidelines that apply to *embedded networks*.

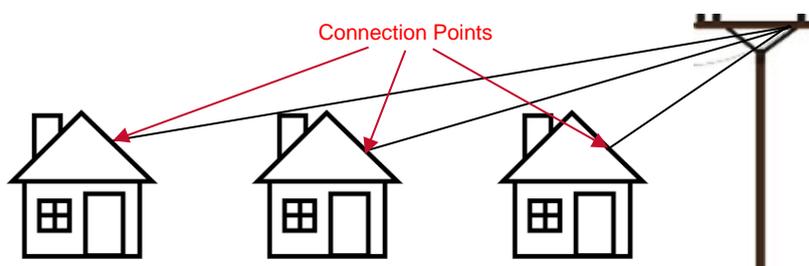
Section 1.3 details other Retail Electricity Market Procedures that apply to ENMs, which take precedence over this Guide.

¹ Victoria has not adopted the *NERL* or *NERR*. As a consequence, any person who proposes to sell electricity on a retail basis in Victoria must apply to the Essential Services Commission of Victoria for a licence. See www.esc.vic.gov.au for further information.

2. EMBEDDED NETWORK OVERVIEW

Electricity is mostly supplied to End Users through a *distribution network*. Each End User's Site is connected to the *distribution network* via a *connection point*, similar to the arrangement in Figure 1.

Figure 1 Typical End User Connection



An *embedded network* is formed when the *connection point* between the End Users and the *distribution network* becomes a *parent connection point* and multiple End User *connection points* become *child connection points*, each with their own *meters*.

Electricity is supplied to End Users in an *embedded network* by an Exempt Embedded Network Service Provider (EENSP).

2.1. Types of end users within an embedded network

There are two types of End Users within *embedded networks*: On-Market and Off-Market.

The EENSP must appoint an ENM to provide *embedded network management services* to On-Market End Users. On-Market End Users may also access a retail offer in the same way as any other End User.

3. NETWORK SERVICE PROVIDER EXEMPTION

3.1. Overview

Under section 13 of the *National Electricity Law* anyone who owns, controls or operates a *distribution system* must either be:

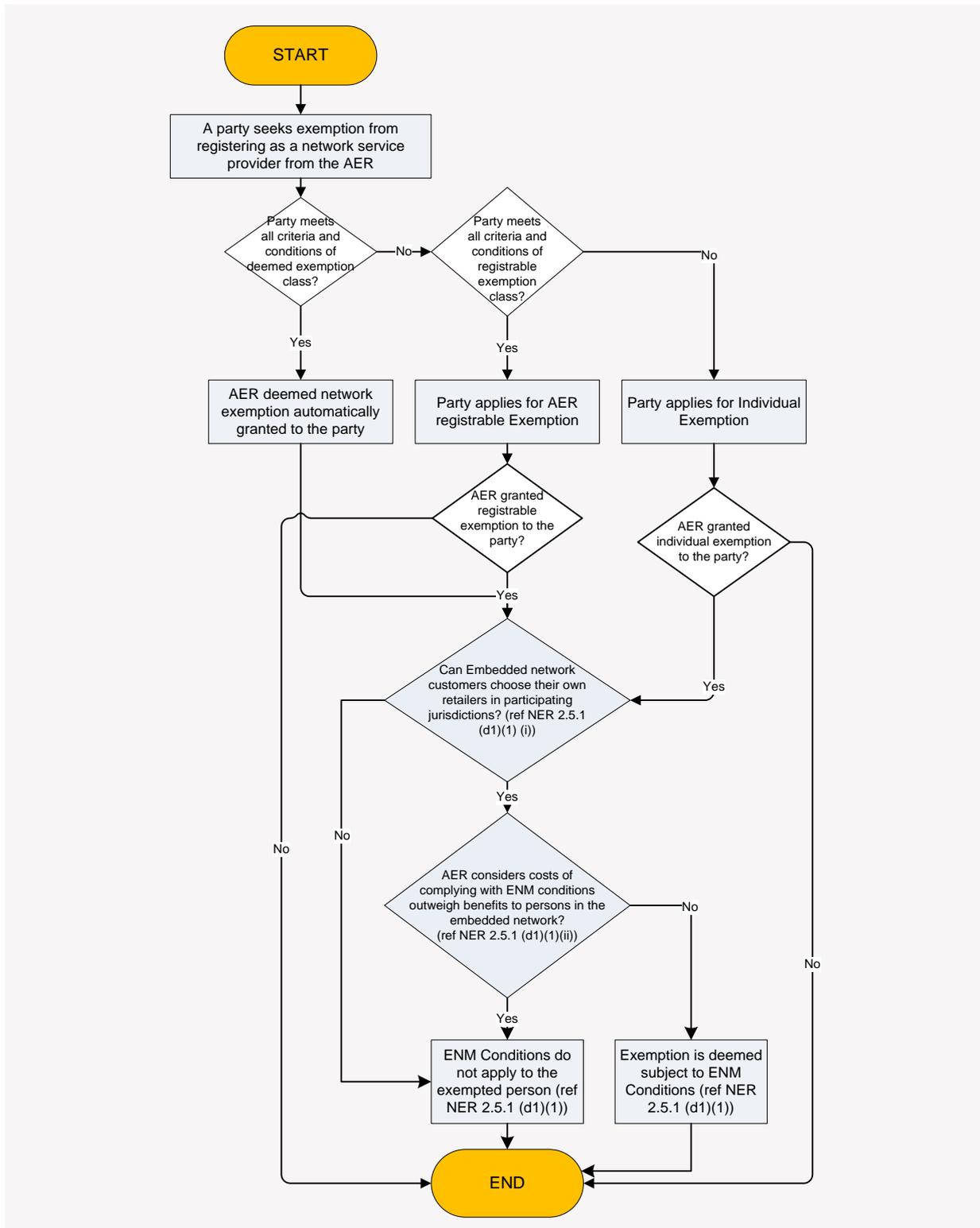
- (a) registered with AEMO as an NSP; or
- (b) exempted from the requirement to be an NSP by the *AER*.

Anyone seeking exemption from the requirement to register as an NSP must apply to the *AER*. If the exemption is granted, that person becomes an EENSP.

To assist potential applicants for exemption, the *AER* has published an Electricity Network Service Provider Registration Exemption Guideline (**Guideline**), which is available at: www.aer.gov.au.

Figure 2 provides an overview of the *AER*'s exemption application process and is not to be read as a substitute for the *AER*'s Guideline.

Figure 2 Network Service Provider Exemption Process



3.2. Types of AER Network Exemptions

There are three categories of exemption:

Deemed exemption, Registrable exemption, and Individual exemption. Refer to the AER’s Guideline for further information.

3.3. Appointment of an ENM

Unless the *AER* determines that:

- (a) an *embedded network* is located in a *participating jurisdiction* that does not allow End Users within it to choose their *retailers*; or
- (b) the likely costs of complying with the *ENM conditions* outweigh the likely benefits to End Users within an *embedded network*, the EENSP must either:
 - (i) act as an ENM for the relevant *embedded network*, in which case the EENSP must be accredited by AEMO to operate as an ENM; or
 - (ii) engage an ENM to provide the *embedded network management services* for the relevant *embedded network*, and enter into an agreement with the ENM for the provision of those services.

3.3.1. Timing of Appointment of ENM

If an ENM is required to be appointed, the EENSP must do so:

- (a) by 1 December 2017 for an existing *embedded network*; or
- (b) from 1 December 2017 immediately on the *embedded network's* commencing operation.

3.4. Accreditation of ENM

ENMs must be accredited and registered by AEMO in accordance with the Qualification Procedure.

AEMO *publishes* a list of all accredited ENMs on its website.

3.5. Embedded Network Operator

'Embedded Network Operator' is a term that is being used by the *AER*. It is not a term that AEMO uses, however, for all intents and purposes the Embedded Network Operator will be an EENSP.

4. SELLING ELECTRICITY IN EMBEDDED NETWORKS

The selling of electricity within an *embedded network* must be undertaken by:

- (a) a *retailer*;
- (b) the holder of a valid retail exemption or authorisation registered with the *AER*;
- (c) a person entitled to a deemed retail selling exemption in accordance with the *AER Exempt Selling Guideline*;² or
- (d) a person authorised to sell electricity in accordance with regulations in force in a Jurisdiction where the *National Electricity Retail Law* does not apply.

4.1. Retail Competition in Jurisdictions

Currently, only Victoria, New South Wales, and South Australia allow End Users within *embedded networks* to choose their *retailer*.

5. EMBEDDED NETWORK MANAGER OBLIGATIONS

The ENM must provide *embedded network management services* to On-market End Users (see section 2.1).

For details of the responsibilities and obligations of an ENM refer to the Service Level Procedure (ENM) and the MSATS Procedures.

² See www.aer.gov.au.