# METROLOGY PROCEDURE: PART A NATIONAL ELECTRICITY MARKET

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# 1. INTRODUCTION

## 1.1. Purpose and Scope

This is the Metrology Procedure: Part A (**Procedure**), made under clauses 7.16.3, 7.16.4 and 7.16.5 of the NER. This document also contains, for the sake of convenience, the following procedures:

(a) *minimum services specification* procedures, which AEMO is required to *publish* under clause 7.8.3(b) of the NER;

(b) *emergency priority procedures*, which AEMO is required to *publish* under clause 7.8.5(b) of the NER;

(c) *network device* procedures, which AEMO is required to *publish* under clause 7.8.6(1) of the NER; and

(d) *meter churn procedures*, which AEMO is required to *publish* under clause 7.8.9(f) of the NER.

This Procedure has effect only for the purposes set out in the NER. The NER and the *National Electricity Law* prevail over this Procedure 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 Procedure; and

(b) should be read with this Procedure.

## 1.3. Related Documents

| Title | Location |
|---|---|
| Retail Electricity Market Procedures – Glossary and Framework | Tbc |
| Metrology Procedure: Part B | http://www.aemo.com.au/Electricity/Policies-and-Procedures/Metrology-Procedures-and-Unmetered-Loads~~Tbc~~ |
| Service Level Procedure (MDP) | http://www.aemo.com.au/Electricity/Retail-and-Metering/Metering-Services~~TBC~~ |
| Service Level Procedure (MP) | http://www.aemo.com.au/Electricity/Retail-and-Metering/Metering-Services~~TBC~~ |

# 2. DISPUTE RESOLUTION

Any dispute arising out of the subject matter of this Procedure will be addressed using the dispute resolution process in clause 8.2 of the NER.

~~The MC involved in a dispute must keep all records in relation to the dispute for a period of seven years from the date of the resolution of the dispute.~~

# 3. RESPONSIBILITY FOR METERING PROVISION

## 3.1. Overall requirements

MCs must use MPs to provide, install, ~~routinely~~ test and maintain the relevant components, characteristics and service requirements of the *metering installation* as specified in the NER and the ~~*metrology procedure*~~this Procedure, as appropriate.

MCs are responsible for the design of a *metering installation* and warrant that the design complies with the components, characteristics and service requirements specified in the NER and this Procedure.

MCs- must ensure the components have been selected, ~~properly~~ installed and ~~initially tested~~commissioned by the MPs so that the *metering installation* satisfies the relevant accuracy and performance requirements in the NER and this Procedure~~the *metrology procedure*~~.

An MP must be able to provide detailed specification and design requirements for those *metering installations* for which accreditation has been provided.

# 4. METERING INSTALLATION COMPONENTS

The components, their characteristics, and associated service requirements for *metering installations* ~~that have~~ not ~~been~~ detailed in the NER ~~have been itemised~~ are detailed in this section.

## 4.1. Requirements under National Measurement Act and Use of Standards

*Meters* used in type 1, 2, 3, 4, 4A, 5, and 6 *metering installations* must comply with any applicable specifications or guidelines (including transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act,* and must also meet the relevant requirements of *Australian Standards* and International Standards:

~~•~~(a) For type 1, 2, 3, 4, 4A, and 5 (including type 3 and 4 whole *current*) *metering installation measurement elements*: AS 62052.11, AS 62053.21 and AS 62053.22.

~~•~~(b) For type 6 *metering installation measurement elements*: AS 1284.1, AS 62053.21 and AS 62052.11.

~~New~~ CTs for type 1, 2, 3, 4, 4A, 5 and 6 *metering installations* must meet the relevant requirements of AS 60044.1 and must also comply with any applicable specifications or guidelines specified by the National Measurement Institute under the *National Measurement Act.*

~~New~~ VTs for type 1, 2, 3, 4 ,5 and 6 *metering installations* must meet the relevant requirements of AS 60044.2, AS 60044.3, AS 60044.5 and AS 1243 and must also comply with any applicable specifications or guidelines (including transitional arrangements) specified by the National Measurement Institute under the *National Measurement Act.*

Unless otherwise permitted by the NER, the MC must ensure that new *meters* and related equipment intended to be used at a *connection point* must have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate issued by a *NATA* accredited laboratory or a body recognised by *NATA* under the ILAC mutual recognition scheme. Relevant approval certificates must be provided to AEMO on request.

~~The MC must ensure that~~ A visible display ~~is~~ must be provided to display, at a minimum, the cumulative total *energy* for each ~~Datastream~~ register measured by that *metering installation.*

Any programmable settings available within the *metering installation*, or any peripheral device that ~~might~~ will affect the resolution of displayed or stored data, must meet the relevant requirements of AS 62052.11, AS 62053.21 and AS 62053.22 and must comply with any applicable specifications or guidelines specified by the National Measurement Institute under the *National Measurement Act.*

## 4.2. Use of Optical Ports and Pulse Outputs

~~**Pulse Outputs**~~

Where requested by a FRMP, the MC must provide pulse output facilities representing the quantity of electricity measured in accordance with the relevant *Australian Standard* for that *meter* within a reasonable time of being requested by a FRMP to provide such facilities.

For type 1, 2, 3, 4, 4A and 5 *metering installations* with a pulse output, the *measurement element* pulse output must provide a number of energy pulses in each integrating period commensurate with the accuracy class of the *metering installation* when operating at the top of the range of measurement of the *metering installation* but may be set at a lower rate where the anticipated operating range is significantly lower than the top of the range of measurement of the *metering installation.*

~~The MC must provide pulse output facilities representing the quantity of electricity measured in accordance with the relevant *Australian Standard* for that *meter* within a reasonable time of being requested by a FRMP to provide such facilities.~~

A type 4A or 5 *metering installation* must have an optical port that meets the AS 1284.10.2 or AS 62056.21 or a computer serial port to facilitate downloading of 90 *days* of *interval energy data* for each *meter* associated with the *metering installation* in 35 seconds or less.

## 4.3. Password Allocation

The MP must allocate "read-only" passwords to FRMPs, LNSPs and AEMO, except where separate "read-only" and "write" passwords are not available, in which case the MP must allocate a password to AEMO and the MDP only.

## 4.4. "x" values – Calculation and Use

For *connection points* with a type 5 *metering installation,* the volume of electricity flowing through the *connection point* is to be less than "x" MWh per annum, where "x" varies according to Jurisdiction, except for *first-tier load* type 5 *metering installations* that meet clause 11.20.3(a) of the NER.

The values of "x" applicable ~~to~~ for a Jurisdiction are specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria<br>New South Wales<br>South Australia<br>Australian Capital Territory~~ACT~~ | Value of "*x*" is 160 MWh per annum |
| Queensland<br>Tasmania | Value of "*x*" is zero (0) MWh per annum. |

*Connection points* must not be aggregated when determining the annual consumption or the ADL as the basis of the comparison with the volume threshold for "x"~~calculating "x".~~

The manner in which the volumes of electricity referred to in the table above are to be calculated in each Jurisdiction is specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria<br>New South Wales<br>Queensland | The volume threshold for a *connection point* must be determined from the annual consumption for the *billing periods* over the most recent 12 month period, or prorated over a 12-month period based on the Average Daily Load where consumption over the most recent 12 month period is not available. Where no ~~consumption~~ metering data is available, the annual consumption may be ~~*estimated*~~ calculated based on an engineering report or ~~consumption data~~metering data from the *loads* of similar customers. |
| South Australia | The volume threshold for a *connection point* must be determined from:<br>(1) the consumption at that connection point for any period of 12 consecutive months in the previous 2-year period, or<br>(2) where such consumption data is not available or has not been accurately recorded, a~~n~~ ~~estimate~~ calculation of the annual consumption at that connection point taking into account past electricity consumption levels, the electricity consumption capacity of plant and equipment, the operations for which electricity is required and any other matter considered relevant. |
| Australian Capital Territory | The volume threshold for a *connection point* must be determined from:<br>(1) the annual consumption over the most recent 12-month period,<br>(2) ~~from~~ the annual consumption over the most recent 12-month period plus an allowance of 2%; or<br>(3) ~~estimated~~ calculated where consumption over the most recent 12-month period is not available or has not been accurately recorded. Where no consumption data is available, the potential annual consumption may be ~~estimated~~ calculated having regard to relevant circumstances including:<br>(a) the consumption capacity of the *connection point* and the extent to which that capacity is likely to be utilised in the future;<br>(b) any recent or proposed change in ownership or use of the Site supplied at the *connection point*; or<br>(c) any recent or proposed increase in the consumption capacity of the *connection point.* |

## 4.5. "y" values – Calculation and Use

For *connection points* with a type 6 *metering installation,* the volume of electricity flowing through the *connection point* is to be less than "y" MWh per annum, where "y" varies according to Jurisdiction, except for *first-tier load* type 6 *metering installations* that meet the requirements of clause 11.20.3(a) of the NER.

The value of "y" applicable ~~to~~ for each Jurisdiction is specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria<br>South Australia<br>Australian Capital Territory~~ACT~~ | Value of "*y*" is 160 MWh per annum. |
| New South Wales | Value of "*y*" is 100 MWh per annum. |
| Queensland | Value of "*y*" is:<br>a) 750 MWh per annum for customers that are not *Queensland Market Customers* in accordance with (c), below, and,<br>aa) For the period 1 July 2012 to 30 June 2013, 750 MWh per annum for *end-use customers* who cease to be *Queensland Non-Market Customers* on 1 July 2012 by operation of the *Act* and/or Queensland *Electricity Regulation 2006*, and,<br>b) 100 MWh per annum for *Queensland Market Customers* in accordance with (c), below of this *metrology procedure*.<br>c) The ~~MC~~ *metering coordinator* must ensure that the meters installed in the type 6 *metering installations* under (a) and (b), above, are *interval meters* which must be capable of being upgraded for use in a type 4 *metering installation* without replacing the *meter*.<br>d) 100 MWh per annum for *end-use customers* where:<br>(i) *card operated meters* are installed in accordance with the regulatory framework, or<br>(ii) *meters* are installed temporarily in a place other than the *meter's* permanent location. |
| Tasmania | Value of "*y*" is 150 MWh per annum. |

*Connection points* must not be aggregated when calculating "y".

The manner in which the volumes of electricity flowing through *connection points* are to be determined are specified ~~in~~ for each Jurisdiction in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria<br>South Australia<br>New South Wales<br>Queensland<br>Tasmania | The volume threshold for a *connection point* must be determined from the annual consumption for the *billing periods* over the most recent 12-month period, or prorated over a 12-month period based on the Average Daily Load where consumption over the most recent 12-month period is not available. Where no ~~consumption~~ metering data is available, the annual consumption may be estimated based on an engineering report or ~~consumption~~ metering data from the *loads* of similar customers. |
| Australian Capital Territory~~ACT~~ | The volume threshold for a *connection point* must be determined from:<br>(1) the annual consumption over the most recent 12-month period,<br>(2) ~~from~~ the annual consumption over the most recent 12-month period plus an allowance of 2%, or<br>(3) ~~*estimated*~~ *calculated* where consumption over the most recent 12-month period is not available or has not been accurately recorded. Where no ~~consumption~~ metering data is available, the potential annual consumption may be estimated having regard to relevant circumstances including:<br>(a) the consumption capacity of the *connection point* and the extent to which that capacity is likely to be utilised in the future;<br>(b) any recent or proposed change in ownership or use of the Site supplied at the *connection point*; or<br>(c) any recent or proposed increase in the consumption capacity of the *connection point.* |

## 4.6. Grandfathering

*Meters* and components for a type 5 or 6 *metering installation*, which were installed, or which were held in stock ~~for the MC~~ prior to the following dates:

~~•~~(a) 1 January 2007 for *second-tier loads*~~.~~

(b) 1 July 2008 for *first-tier loads*.

and which met the requirements of a Jurisdiction at that time, are deemed to meet the requirements of the *metrology procedure.*

*Metering installations* that have been installed, or are held in stock for the MC in a Jurisdiction prior to the effective date of that Jurisdiction's initial metrology procedure and do not comply with the NER or the *metrology procedure*, may be used where approval from a *Jurisdictional Regulator* had been obtained prior to the effective date of the *metrology procedure* or approval is obtained from *AEMO.*

*First-tier load* summation *metering installations* that were commissioned prior to 1 July 2008 that complied with the Jurisdictional requirements as at this date and continue to meet the Jurisdictional requirements are taken to be NER and *metrology procedure* compliant. The summation *metering installations* are deemed non-compliant if they do not meet the applicable Jurisdictional accuracy standards at 30 June 2008. Defective *first-tier load* summation *metering installations* that were commissioned prior to 1 July 2008 must be repaired or replaced so as to ensure the summation *metering* meets the minimum standards in accordance with the NER and the *metrology procedure*.

## 4.7. Data Storage Requirements for Meters

A type 4A or 5 *metering installation* must have the capability of storing *interval energy data* for a period of 200 *days*. Components of a type 5 *metering installation* installed prior to 1 January 2007 must have the capability of storing *interval energy data* for a period of at least two Meter Reading cycles plus 15 *days*, or 35 *days*, whichever is the greater.

## 4.8. ~~Meters and Clocks~~Metering Installation Clock

A type 4A, 5 or 6 *metering installation* clock is to be reset to within ± 20 seconds of *Eastern Standard Time* on each occasion that the *metering installation* is accessed in ~~in~~ the circumstances referred to in paragraphs a) and b), and the maximum drift in the type 4A or 5 *metering installation* clock permitted between successive Meter Readings is ± 300 seconds.

(a) MP must reset a type 4A, 5 or 6 *metering installation* clock when inspecting, maintaining or commissioning the *metering installation*.

(b) MDP must reset a type 4A, or 5 *metering installation* clock when *interval metering data* is collected from the *metering installation*.

A CT-connected type 5 *metering installation* with a slower download time than specified in section ~~2.4.24~~4.2 may be used where approved by AEMO.

For type 6 *metering installations* with different time of day rates, the *metering installation* must meet *AS* 62054.11, *AS* 62054.21 and *AS* 62052.21, or have the switching between the different rates controlled by a frequency injection relay or time clock operated by the LNSP.

## 4.9. Interval Meters

Where a *metering installation* records *interval energy data* the interval periods are based on TIs or parts of a TI:

(a) The end of each interval for a 15-minute interval period must be on the hour, on the half-hour and on each quarter of an hour (EST).

(b) The end of each interval for a 30-minute interval period must be on the hour and on the half-hour (EST).

(c) Other sub-multiple intervals, where agreed with AEMO, the LNSP and the relevant Market Participant, provided that the ends of the intervals correspond each and every exact hour (EST) and half-hour (EST).

## 4.10. Alarm settings

Where the *meter* supports alarm functionality as an attachment to the interval metering data, the MP is required to enable the following alarms:

(a) Power failure;

(b) Voltage failure;

(c) Pulse or interval data overflow;

(d) Checksum error; and

(e) Time reset.

Where there are alarm sensitivity settings, these must be set at appropriate levels to ensure meaningful alarm outputs (e.g. for contestable customer supplies a Voltage drop of -15% is nominally appropriate).

# 5. MINIMUM SERVICES SPECIFICATION

For a type 4 *metering installation* to become a *small customer metering installation*, it must meet the *minimum services specification*, which is specified in Schedule 7.5 of the NER.

The services set out in the *minimum services specification* apply to the capability of the *metering installation* itself.

## 5.1. Minimum Service Levels

The minimum service levels are made up of two elements: service availability and completion timeframes.

### 5.1.1. Service Availability

Except for periods of a ~~lack~~ loss of *supply*, *metering installations* must be capable of meeting the *minimum services specification* at all times.

### 5.1.2. Completion Timeframes

The completion timeframes for each service are detailed in Table 5.1. They will be measured from the time a request is received by the metering installation to the time of completion of the relevant service by the metering installation.

Completion timeframes are measured~~:~~

~~-~~ from the time a request is received by the *metering installation*

- to the time that the notification of completion of the relevant service by the *metering installation* appears at the communication interface at or near the *metering point(s)* where the notification of completion is made available for collection.

### 5.1.3. Completion Rates

The services and completion rates for each service are detailed in Table 5.1. The timeframes will be measured from the time a request is received by the *metering installation* to the time of completion of the relevant service by the *metering installation*.

Upon request from AEMO, the MC must be able to provide evidence demonstrating that *small customer metering installations* are capable of performing to the completion rates~~, upon request by AEMO~~.

## 5.2. Technical Requirements

A *small customer metering installation* must comply with the following technical requirements:~~There are two technical requirements:~~

- (a) ~~All *metering installations*~~It must be capable of measuring *active* ~~*power*~~ *energy* (Wh) and leading and lagging *reactive* ~~*power*~~ *energy* (~~VArh~~varh) for both import and export *energy* flows, i.e. 4 quadrant metering.

- (b) Where a poly-phase *metering* device is installed ~~within a *metering installation*,~~ the *metering installation* must be capable of recording and providing the average voltage and current per phase over a nominated ~~*trading interval*~~ TI for one or more nominated ~~*trading intervals*~~TIs, for ~~each~~ all connected phase.

**Table 5.1 Minimum Service Levels, ~~and Minimum~~ Standards and Completion Rates**

| Service | Completion Timeframe | Completion Rate |
|---|---|---|
| **Remote Disconnection Service** | Completed within 1 minute of the command being received by the *metering installation* | 99.5% completed within Minimum Service Levels |
| **Remote Reconnection Service** | Completed within 1 minute of the command being received by the *metering installation* | 99.5% completed within Minimum Service Levels |
| **Remote On-Demand Meter Read** | Completed within 1 minute of the command being received by the *metering installation* | 99.5% completed within Minimum Service Levels |
| **Remote Scheduled Meter Read** | Completed within 1 minute of the command being received by the *metering installation* | 99.5% completed within Minimum Service Levels |
| **Metering Installation Inquiry** | Completed within 1 minute of the command being received by the *metering installation* | 99.5% completed within Minimum Service Levels |
| **Advanced Meter Reconfiguration** | Completed within 1 minute of the command being received by the *metering installation* | 99.5% completed within Minimum Service Levels |

## 6. SUMMATION METERING

These provisions are included to support legacy arrangements for existing *metering installations* where allowed by Jurisdictional transitional arrangements in Chapter 11 of the NER.

(a) If summation *metering* is achieved by paralleling CT secondary circuits, the overall *metering installation* must meet the minimum standards for a new *metering installation* under all *load* combinations of the individual CT secondaries.

(b) If summation *metering* is achieved by the arithmetic sum of data registers or the accumulation of pulses, each individual *metering point* must meet the minimum standards for a new *metering installation* and the MC must on request demonstrate that the summation techniques reliably and accurately transfer data.

(c) CT secondaries can only be paralleled using appropriate arrangements of links; this must not be done at the *meter* terminals.

(d) For type 2 *metering installations* only: Direct summation, in which secondary wiring from a multiple number of feeders is connected directly into the terminals of a *meter,* or summation CTs are permitted provided that the overall errors of the *metering installation* are considered.

## 7. EMBEDDED NETWORKS

This requirement only applies in the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria,<br>South Australia | Should a Child Metering Point in an *embedded network* elect to purchase electricity from a *retailer* other than the parent's *retailer*, the ~~MC~~ metering coordinator must ensure that:<br>(a) the *child* has an *interval meter* installed; and<br>(b) the parent of the *embedded network* has an Interval Meter installed. |
| New South Wales | (1) Should a *child* in an *embedded network* elect to purchase electricity from a *retailer* other than the parent's *retailer*, the ~~MC~~ metering coordinator must ensure that, at the time the *child* switches *retailer* and at the cost of the *child*:<br>(a) if the parent has an Interval Meter that is settled on the basis of *interval energy data*, the *child* must have a type 4 or type 5 *metering installation* that is settled on the basis of *interval energy data*;<br>(b) if the parent has an Accumulation Meter or an Interval Meter that is settled on the basis of *accumulated energy data*, the *child* must have a type 6 *metering installation* or, if the *child* has an Interval Meter, it must be settled on the basis of *accumulated energy data*.<br>(2) Where a *child* in an *embedded network* has switched *retailer* in accordance with clause 2.5.1[NSW](1)(b) above and the parent subsequently:<br>(a) installs an Interval Meter and elects to have its meter settled on the basis of interval energy data; or<br>(b) elects to have its existing Interval Meter settled on the basis of accumulated energy data in accordance with clause 3.4.2[NSW](3); or<br>(c) elects to have its existing Interval Meter settled on the basis of interval energy data, the MC must ensure that at the time the parent changes, and at the cost of the parent, the child's metering installation meets the requirements of paragraph (a) or (b) of clause 2.5.1[NSW](1), as applicable. |

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| ~~ACT~~Australian Capital Territory | (1) The ~~MC~~ metering coordinator must ensure that the metering installation is not for a child in an embedded network.<br>(2) Where the metering installation is for a child in an embedded network, the ~~MC~~ metering coordinator must ensure that additional metering is installed to ensure that clause 2.5.1[ACT](1) is met. |

## 8. REVERSION OF METERING INSTALLATION TYPES

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria | The metering coordinator ~~MC~~ must ensure that a type 4 or type 5 metering installation is not replaced by a type 6 metering installation. |
| New South Wales | (1) The metering coordinator ~~MC~~ must ensure that a meter that meets the requirements of a type 5 metering installation, and is installed at a connection point consuming between 100 MWh per annum and 160 MWh per annum is not removed from a metering point, unless:<br>(a) the metering installation is to be replaced by a metering installation type 1, 2, 3, 4, or 5; or<br>(b) the NMI is deregistered.<br>(2) Where an interval meter has been installed in accordance with clause 3.4.2[NSW](1), the metering coordinator ~~MC~~ must ensure that it is not replaced with an Accumulation Meter.<br>(3) The MC must ensure that a meter, which is a sample Interval Meter installed for the purposes of calculating a CLP is not removed without the consent of the LNSP.<br>(4) The MC must ensure that the energy measured by a meter, which is a sample interval meter installed for the purposes of calculating a CLP is settled market on the basis of a metering installation type 6. |
| South Australia | (1) Subject to clause 2.6.1 [SA](2), the MC must ensure that a type 4 or type 5 metering installation is not replaced by a type 6 metering installation.<br>(2) A type 4 or type 5 metering installation may be replaced by a type 6 metering installation in relation to a specified connection point where approved by the Minister and written notice of that approval has been provided to AEMO.<br>(3) The metering coordinator ~~MC~~ must ensure that a sample Interval Meter installed for the purposes of calculating the CLP is not removed without the consent of the LNSP. |
| Australian Capital Territory~~ACT~~ | (1) The metering coordinator ~~MC~~ must ensure that a type 4 or type 5 metering installation is not replaced by a type 6 metering installation.<br>(2) The metering coordinator ~~MC~~ must ensure that where an Interval Meter is installed, the metering installation complies with the requirements of a type 4 or type 5 metering installation. |
| Queensland | (1) The metering coordinator ~~MC~~ must ensure that an Interval Meter is not replaced by an Accumulation Meter.<br>(2) The metering coordinator ~~MC~~ may convert a remotely read Interval Meter to a manually read Interval Meter if the consumption drops below 100MWh per annum.<br>(3) The metering coordinator ~~MC~~ must ensure that a a sample Interval Meter installed for the purposes of calculating a CLP is not removed without the consent of the LNSP.<br>(4) The metering coordinator ~~MC~~ must ensure that the energy measured by a a sample Interval Meter installed for the purposes of calculating the CLP is settled in the market on the basis of a type 6 metering installation. |
| Tasmania | (1) The metering coordinator ~~MC~~ must ensure that a type 4 or type 5 metering installation is not replaced by a type 6 metering installation.<br>(2) A type 4 or type 5 metering installation may be replaced by a type 6 metering installation in relation to a specified connection point where approved by the Minister and written notice of that approval has been provided to AEMO. |

## 9. ROUTINE TESTING AND INSPECTION OF METERING INSTALLATIONS

Unless ~~the~~ an MC has an Asset Management Strategy, *metering installations* must be tested and inspected in accordance with clause~~s~~ 7.9 and ~~S~~schedule 7.6 of the NER. Section 9 ~~specifies~~ provides AEMO's ~~requirements~~ guidelines in respect of a proposed Asset Management Strategy that ~~an~~ the MC will need to take into consideration when seeking approval of an Asset Management Strategy.

An acceptable alternative testing practice or test plan for in-service *meter* performance must demonstrate compliance with *Australian Standard* "AS 1284.13: Electricity Metering in-service compliance testing".

Unless the~~-~~ MC has developed an alternative accuracy assessment method for type 5 and 6 *metering installations* that meets the intent of S7.4.3.5 and S7.4.3.6 of the NER and is approved by AEMO, the

overall *metering installation* error is calculated by the vector sum of the errors of each *metering installation* component, i.e. a + b + c.

a = error of VT and wiring

b = error of CT and wiring

c = error of *meter*

Where the MC is not testing and inspecting *metering installations* in accordance with clauses 7.9 and S7.6 of the NER (i.e. not time-based), the MC must include in its Asset Management Strategy an alternative inspection practice that meets the requirements of clause S7.6 of the NER.

~~Once AEMO approves the Asset Management Strategy,~~ The MC must provide a copy of the Asset Management Strategy to each relevant MP~~-~~.

For those *meters* for which new or amended pattern approval has been received from the *National Measurement Institute* or, in the absence of pattern approval, new or amended type testing has been undertaken by a *NATA* accredited laboratory or a body recognised by *NATA* under the ILAC mutual recognition scheme, the MC must ensure that the Sample Test Plan stipulates that this population of *meter* is tested at least once in the first three years of being placed in service.

## 10. INSTALLATION OF METER(S)

The~~-~~ MC must use reasonable endeavours to ensure that, at the time of installation, a *metering installation* is:

(a) protected against damage;

(b) installed in such a way that it allows safe and unimpeded access to the End User or any person whose obligation it is to test, adjust, maintain, repair, or replace the *metering installation*, or to collect *metering data* from the *metering installation*; and

(c) available to the End User or any person whose obligation it is to test, adjust, maintain, repair, or replace the *metering installation*, or to collect *metering data* from the *metering installation* via safe, convenient and unhindered access when it is not located at the Site.

The ~~-~~MC must ensure that when each *meter* of a type 4 or 4A *metering installation* is installed, it is checked such that:

~~(a)~~(d) It has the optical port, communications port and visual display located so that the optical port, communications port, or visual display can be readily accessed for Meter Reading; and

~~(b)~~(e) This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Queensland | Complies with the Queensland Electricity Connection and Metering Manual, which each LNSP must publish and update from time to time. |

~~In accordance with clauses 7.8.6 of the NER, the MC must not unreasonably withhold its consent to a request from a *Market Participant* or LNSP to install a *metering installation* of a type that is different from that already installed, or provide facilities in addition to that which the MC otherwise would install, provided that the *metering installation* satisfies any applicable technical requirements (including those reasonably required by the LNSP) and complies with the NER and the *metrology procedure* applicable to the *metering installation* type.~~

Where a *Market Participant* ~~or LNSP~~ requests in writing for ~~the~~ an MC to provide and install a *metering installation*, the MC must use reasonable endeavours to provide and install the *metering installation* within 20 *business days* of receipt of the written request. Note, an exception to this requirement is where high voltage equipment procurement with long lead times is required.

~~If the pricing arrangements for the supply of electricity in respect of a *connection point* change and the *metering installation* is thereafter incapable of appropriately measuring and recording the amount of electricity supplied to that *connection point*, the MC must provide, install, commission, test and maintain the *metering installation* to appropriately measure and record the amount of electricity supplied to the *connection point*~~

## 10.1. Installation by Accredited Service Providers

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| ~~New South Wales~~ | |

| ~~Jurisdiction~~ | ~~Variation in accordance with jurisdictional policy~~ |
|---|---|
| ~~New South Wales~~ | ~~The MC must ensure that, where another person engages an MP for the purposes of installing a *meter* or *data logger*, the *meter* or *data logger* is provided to that MP by the MP engaged for the purposes of providing the *meter* or *data logger*.~~ |

# 11. METER CHURN

## 11.1. ~~Who can~~ Initiatione of a Meter Churn

The current MC for a *metering installation* can initiate a Meter Churn at any time.

## 11.2. ~~Who can~~ Performance of a ~~the~~ Meter Churn

Only MPs with the appropriate accreditation can perform a Meter Churn.

## 11.3. ~~How is a~~ Meter Churn Process~~to be Performed~~

When a Meter Churn is initiated, the MC must ensure:

(a) information is made available to any New MP to facilitate the Meter Churn, which includes:

- (i) the *NMI*;
- (ii) the Site;
- (iii) the ~~*meter* serial number(s)~~ Meter Serial ID(s) of the *meter*(s) to be removed;
- (iv) the name of the Current MP and its Participant ID;
- (v) the name of the Current MDP and its Participant ID;
- (vi) the current *metering installation* type; and
- (vii) instructions on the required changes;

(b) all Role assignments in MSATS for the *connection point* comply with the MSATS Procedures within 2 *business days* of the Meter Churn; and

(c) the start date for any New MP or New MDP is:

- (i) the *meter* change date for an Accumulation Meter to Interval Meter change;
- (ii) the *meter* change date for an Interval Meter to Interval Meter change; and
- (iii) for Jurisdictions where reversion is permitted, the *meter* change date +1 day for an Interval Meter to Accumulation Meter change.

# 12. DE-COMMISSIONING AND REMOVAL OF METERING EQUIPMENT AND NETWORK DEVICES

Before de-commissioning all or any part of an existing *metering installation*, including any *network device*, the MP undertaking the work must ensure that:

(a) Arrangements are put in place to ensure a Final Reading is taken, at the time of de-commissioning, of all *metering data* maintained in the existing *meter*; and

(b) The ownership of the existing *meter* is ascertained and arrangements made for the *meter* or *network device* to be returned to its owner within 10 *business days* unless otherwise agreed with the ~~LNSP~~asset owner.

Where the *metering data* from the Final Reading is not transferred to the relevant MDP at the time of de-commissioning, the owner must ensure the *metering data* or Final Reading (as applicable), is provided to that MDP within two *business days* of receipt of the *meter*.

Where the *metering installation* includes equipment for load control or the measurement of *reactive energy*, the installation and operation of that equipment will be governed by an instrument other than the *metrology procedure*, for example, a 'use of system' agreement between the LNSP and the ~~financially responsible Market Participant~~FRMP.

## 12.1. Network Devices

### 12.1.1. Deemed Network Devices

For the purposes of clause 7.8.6 of the NER, an existing *metering installation* that is to be replaced by ~~an the~~an MC will be treated as a *network device* only if the *metering installation* is ~~doing something~~performing a function other than supporting the application of a Network Tariff.

Where the *metering installation* includes equipment for *load* control or the measurement of *reactive energy*, the installation and operation of that equipment will be governed by an instrument other than the *metrology procedure*, for example, a 'use of system' agreement between the LNSP and the FRMP.

### 12.1.2. Removal during Meter Churn

A *network device* can only be removed during a Meter Churn:

(a) where the relevant MC and the LNSP agree to its removal; ~~or~~

~~(a) to allow for removal in other circumstances allowed under the NER; or~~

(b) where the sole purpose of a *network device* is to provides a:

(i) control service that facilitates the application of a Network Tariff at the *NMI*, such as the control of a hot water via *load* control relays, and that service is obsolete as a result of the Meter Churn and no longer required; or

(ii) switching service that facilitates the application of a Network Tariff at the *NMI*, such as a timeclock or time switch used to change the register on a multi-register *meter*, and that service is obsolete as a result of the Meter Churn~~.~~; or

~~(ii)~~(c) to allow for removal in other circumstances allowed under the NER.

### 12.1.3. ~~LNSP~~ Obligations if Alterations to Metering Installations or Network Devices are Required

Where an LNSP considers that an isolation or alteration is required to a *metering installation* to ~~accommodate~~facilitate the installation, removal~~e~~, or replacement of a *network device* ~~installed~~ at or near the *metering installation*, including the removal of any seal, the LNSP must:

(a) agree the isolations or alterations with the affected MC and MP prior to the commencement of any alterations;

(b) ensure any work performed on the *metering installation* is undertaken by a suitably accredited MP; and

(c) ensure that the MC and MP are provided with details of the isolation or alteration, including any new seals.

~~(c)~~ Where a Network device needs to be altered to accommodate a change to the metering installation, including the removal of any seal, the MC must ensure that the LNSP is provided with details of the isolation or alteration, including any new seals.

### 12.1.4. Notifications following Network Device Removal without LNSP Consent

If ~~thean~~an MC arranges for the removal of~~es~~ a *network device* in accordance with clause 7.8.6(f) of the NER, the MC must, in addition to providing the notifications required by clause 7.8.6(g) of the NER, provide the following records in electronic format to the LNSP:

(a) The type, asset number and serial number of the *network device* removed, the name of the *network device* owner, where those details are provided on the *network device* itself; and

(b) The type, asset number and serial number of any additional *network device* that was not removed, the name of the *network device* owner of any other *network device* where those details are provided on the *network device* itself.~~;~~

# 13. RESPONSIBILITY FOR METERING DATA SERVICES

## 13.1. Metering Data Services

The MC or FRMP (where applicable) must use MDP(s) for the provision of *metering data services* in accordance with clause 7.3.2 of the NER.

The MC or AEMO (as applicable) must ensure that calculation, Validation, Substitution and Estimation of *metering data*, where appropriate, is undertaken in accordance with the Metrology Procedure: Part B.

## 13.2. Metering Data Collection

For type 1, 2, 3, 4, 4A, 5 and 6 *metering installations,* the MC or AEMO (where applicable) must ensure that *metering data* is collected in accordance with the applicable *service level procedure*.

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria | Subject to clause 3.4.3[Vic], the *type 5 accumulation boundary* is zero MWh per annum. |
| New South Wales | (1) Subject to clause 2.6.1[NSW](4), the *type 5 accumulation boundary* is 100 MWh per annum.<br>(2) Subject to clause 2.6.1[NSW](4), where an Interval Meter has been installed in accordance with clause 3.4.2[NSW](1), it may be read as a *metering installation* type 5 at any time.<br>(3) Where an Interval Meter has been installed, the ~~MC~~ metering coordinator must ensure that the reading of that Interval Meter may only be changed from being read as a *metering installation* type 5 to being read as a *metering installation* type 6 when:<br>(a) a transfer of the customer to a New Retailer has been effected; or<br>(b) the Interval Meter has been read as a *metering installation* type 5 for a period of at least 12 contiguous months with the existing *retailer*. |
| South Australia | (1) The *type 5 accumulation boundary* is zero MWh per annum.<br>(2) The ~~MC~~ metering coordinator must ensure that the *energy* consumed and measured by a a sample Interval Meter installed for the purposes of calculating the CLP, is settled in the *market* on the basis of a type 6 *metering installation*. |
| ~~ACT~~Australian Capital Territory | (1) In accordance with clause 2.6.1[ACT](2), the *type 5 accumulation boundary* is 100 MWh per annum.<br>(2) If an Interval Meter has been installed for sites where the *type 5 accumulation boundary* is less than 100 MWh per annum, it may be read as a *metering installation* type 5 at any time. |
| Queensland | The *type 5 accumulation boundary* is 750 MWh per annum. |

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria | Clauses 3.4.2[Vic] and 3.4.6 do not apply to type 5 *metering installations* installed on or after 27 February 2005. For type 5 *metering installations* installed on or after 27 February 2005, the *type 5 accumulation boundary* is 160 MWh per annum. |
| Australian Capital Territory~~ACT~~ | Clause 3.4.6 does not apply to type 5 *metering installations* with consumption less than is specified in clause 3.4.2[ACT](1) where that *metering installation* is being read as a type 6. |

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria | During the period in which the ~~MC~~ metering coordinator is not required to collect *interval energy data* from any type 5 *metering installation* because of the operation of clause 3.4.3[Vic], if it does not collect *interval energy data* from that *metering installation*, it must collect *accumulation energy data* from that *metering installation* as if it were a type 6 *metering installation*. |
| ACT | During the period in which the metering coordinator~~MC~~ is not required to collect *interval energy data* from any type 5 *metering installation* because of the operation of clause 3.4.2[ACT](2), if it does not collect *interval energy data* from that *metering installation*, it must collect *accumulation energy data* from that *metering installation* as if it were a type 6 *metering installation*. |

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Queensland | (1) An Interval Meter installed at a *connection point* where the flow of electricity is less than 100MWh per annum will be read as an Accumulation Meter unless the *metering installation* is classified as types 1 to 4.<br>(2) Subject to (3), an Interval Meter installed for a *Queensland Market Customer* where the flow of electricity is greater than or equal to 100 MWh per annum must be read as a remotely read Interval Meter.<br>(3) Notwithstanding (2), an Interval Meter installed where the flow of electricity is greater than or equal to 100 MWh per annum and where the *connection point* has never had an customer with a *negotiated retail contract* will be read as an Accumulation Meter by the ~~MP~~metering data provider.<br>(4) Once *interval* ~~*energy*~~ *metering data* is transferred to AEMO, the Interval Meter must continue to be read as an Interval Meter unless the *NMI* is reclassified from a *NMI* equal to or greater than 100 MWh per annum to a *NMI* less than 100 MWh per annum, in which case the Interval Meter may be read as an Accumulation Meter.<br>(5) A LNSP is permitted to read the *metering installation* for its own purpose provided the reading schedule is coordinated with the metering coordinator~~MC~~. |

Subject to the dates specified in clause 3.4.3[Vic], for type 5 *metering installations* (excluding sample profile *meters* for the purposes of developing the CLPs in accordance with section 13.3 of Metrology Procedure: Part B), the MC must:

(a) Ensure that *interval metering data* is collected from a *metering installation* in accordance with the appropriate *service level procedure;* and

(b) Use reasonable endeavours to ensure that *interval metering data* is collected from every type 5 *metering installation* once every three months and that this *metering data* is transferred to the *metering data services database*.

~~(c) This requirement only applies to the Jurisdiction specified in the following table:~~

| ~~Jurisdiction~~ | ~~Variation in accordance with jurisdictional policy~~ |
|---|---|
| ~~South Australia~~ | ~~The MC must ensure that *metering data* is collected from the *meters*/associated *data loggers* and this data is transferred to the *metering installation database* of a type 5 *metering installation* at least once every 6 months.~~ |

~~Note: The effective date of this Jurisdictional provision is 22 September 2008. The review date of this Jurisdictional provision is 31 December 2011.~~

For type 6 *metering installations*, the MC must:

~~(d)~~(c) Ensure that *accumulated energy data* is collected from *metering installations* in accordance with the appropriate *service level procedure*; and

~~(e)~~(d) Use reasonable endeavours to ensure that *accumulated energy data* is collected from every type 6 *metering installation* once every three months and that this *metering data* is transferred to the *metering data services database*.

~~(f) This requirement only applies to the Jurisdiction specified in the following table:~~

| ~~Jurisdiction~~ | ~~Variation in accordance with jurisdictional policy~~ |
|---|---|
| ~~South Australia~~ | ~~The MC must ensure that metering data is collected from the metering installations/associated data loggers and this data is transferred to the metering installation database of a type 6 metering installation at least once every 12 months.~~ |

~~Note: The effective date of this Jurisdictional provision is 22 September 2008. The review date of this Jurisdictional provision is 31 December 2011.~~

~~The~~ An MC must use reasonable endeavours to ensure that *energy data* is collected from a type 4A, 5 or 6 *metering installation* and transferred to the relevant *metering data services database* no more than two *business days* prior to, or two *business days* subsequent to, the Scheduled Reading Date for that *metering installation*.

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria | Nothing in clause 3.4.9 prevents the metering coordinator ~~MC~~ from additionally collecting *energy data* from a type 5 *metering installation* and transferring that data to the relevant *metering* ~~*installation database*~~*data services* earlier than 2 *business days* prior to the *scheduled reading date* for that *metering installation.* |

Note: The effective date of this Jurisdictional provision is 1 July 2009. The review date of this Jurisdictional provision is 31 December 2017.

For *metering installations* that do not have *remote acquisition*, and where the MC is not a TNSP, the MC must ~~ensure~~ use reasonable endeavours to ensure that each *metering installation* is read every three months, and the Meter Reading frequency is agreed with the FRMP ~~and the LNSP~~.

## 13.3. Metering data storage

The MDP must provide a *metering data services database* containing *metering data* in accordance with clause 7.10.1 of the NER.

The Load Tables, Inventory Tables and On/Off Tables for type 7 *metering installations* must be stored within the *metering data services database*.

## 13.4. Access to ~~Energy Data and~~ Metering Data

(a) Access to *metering data* must be provided ~~as follows: type 1, 2, 3, and 4 *metering data*~~ in accordance with Service Level Procedure (MDP).

(b) This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| Victoria | Despite Clause 3.6.2, where *metering data* for a type 5 *metering installation* is collected more frequently than required under clause 3.4.9 (as allowed under clause 3.4.9A[Vic]) access to *metering data* need not be provided until 5pm on the second *business day* after the next *scheduled reading date* for that *metering installation*. |

Note: The effective date of this Jurisdictional provision is 1 July 2009. The review date of this Jurisdictional provision is 31 December 2017.

The MC must ensure that *metering data* from the following is transferred to AEMO:

(a) *interval metering data* for *first-tier loads*, including First-Tier Controlled Loads *calculated metering data* for *first-tier loads*, and

(b) *accumulated metering data* for First-Tier Controlled Loads in New South Wales and Queensland.

The MC must notify *AEMO* of the *interval metering data* for *first-tier loads* that are to be transferred to AEMO.

## 13.5. Verification of Metering Data for Direct Connected Small Customer Metering Installations, Type 4A, 5, 6 and 7 Metering Installations

~~The~~ Each MC must ensure that a Sample Test Plan is established and maintained in accordance with *Australian Standards* "AS 1199: Sampling procedures for inspection by attributes – Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection" or "AS 2490: Sampling Procedures and Charts for Inspection by Variables for Percent Nonconforming" to Validate that all *metering data* stored in the *metering data services database* is consistent with the *energy data* stored in the *metering installation* or the Physical Inventory (as applicable).

Verification tests must be conducted in accordance with the Sample Test Plan, which must not be less than once every 12 months.

If there is an inconsistency between the *energy data* held in a *metering installation* and the *metering data* held in the *metering data services database*, the *energy data* in the *metering installation* is to be taken as prima facie evidence of the amount of electricity supplied to that *metering point*, except if the *meter* or components of the *metering installation* are found to be not compliant with the NER

The *calculated metering data* stored in a *metering data services database* for a *NMI* is consistent with the Physical Inventory if the error associated with calculating the *energy* value for the sample, that is:

$$\frac{\sum_{i=1}^{n} \text{(Agreed } load \text{ per Unmetered Device type as per Load Table)}_i * \text{(Actual number of Unmetered Device types in the sample geographic area)}_i}{\sum_{i=1}^{n} \text{(Agreed } load \text{ per Unmetered Device type as per Load Table)}_i * \text{(Number of Unmetered Device types in the sample geographic area as per Inventory Table)}_i} - 1$$

where: $i$ = Unmetered Device type

is within ± 2.0%. Where the existing error is greater than ± 2.0% a date for reaching an error level within ± 2.0% and a transition plan to reach that error level must be determined by AEMO in consultation with the relevant MC and affected *Registered Participants*.

If there is an inconsistency between the Inventory Table held in a *metering data services database* for a type 7 *metering installation* and the Physical Inventory, the Physical Inventory is to be taken as prima facie evidence of the actual number of Unmetered Devices.

## 13.6. Metering Installation Type 7 – Sample Testing

For the purposes of sample testing type 7 *metering installations*, the MC must ensure that the sample size is determined~~ing~~ using Table 3.8. The sample is to be selected from Unmetered Devices in the Inventory Table for an MC.

The MC must ensure that the sample size for the first two Validation tests is based on a 'normal' sample size indicated in Table 3.8.

**Table 3.8 - Unmetered Devices in Inventory Table**

| Number of Unmetered Devices in Inventory Table | Sample Size | | |
|---|---|---|---|
| | Reduced | Normal | Tightened |
| | | | |
| 2 to 8 | 2 | 2 | 3 |
| 9 to 15 | 2 | 3 | 5 |
| 16 to 25 | 3 | 5 | 8 |
| | | | |
| 26 to 50 | 5 | 8 | 13 |
| 51 to 90 | 5 | 13 | 20 |
| 91 to 150 | 8 | 20 | 32 |
| | | | |
| 151 to 280 | 13 | 32 | 50 |
| 281 to 500 | 20 | 50 | 80 |
| 501 to 1200 | 32 | 80 | 125 |
| | | | |
| 1201 to 3200 | 50 | 125 | 200 |
| 3201 to 10000 | 80 | 200 | 315 |
| 10001 to 35000 | 125 | 315 | 500 |
| | | | |

| Number of Unmetered Devices in Inventory Table | Sample Size | | |
|---|---|---|---|
| | Reduced | Normal | Tightened |
| 35001 to 150000 | 200 | 500 | 800 |
| 150001 to 500000 | 315 | 800 | 1250 |
| 500001 to over | 500 | 1250 | 2000 |

The MC -must ensure that the sample size for subsequent Validation tests is based on the following:

The MC must select sample Unmetered Devices for a Validation test from random geographic areas depending on the sample size. The selection of the geographic area must be such that each Unmetered Device has an equal chance of being included in the sample.

The MC must ensure that the Validation test is conducted at least once every six months, commencing from the first Validation test.

Should the results of two consecutive Validation tests, based on a reduced sample size, be within the accuracy requirements for that test, the MC must ensure that the next Validation test is conducted at least once every 12 months.

## 13.7. Request for Test of Calculated Metering Data

If requested to test a type 7 *metering installation* by a *Registered Participant* under clause 7.9.1 of the NER, the MC or AEMO (as applicable) must:

(a) arrange to test that the *calculated metering data* stored in the *metering data services database* reflects the Physical Inventory for the type 7 *metering installation*;

(b) use reasonable endeavours to conduct the test within 15 *business days* of the request; and

(c) prior to any test being undertaken, provide an estimate of costs associated with the test.

Where there is a discrepancy between the Inventory Table held in the *metering data services database* for a type 7 *metering installation* and the Physical Inventory, the Physical Inventory is to be taken as prima facie evidence of the actual number of Unmetered Devices.

## 13.8. AEMO's Metering Data Obligations

### 13.8.1. Substitutions

Where *metering data* has been Substituted, AEMO must advise affected *Registered Participants* at the same time as that *metering data* is sent to *Market Participants* for *settlements*.

### 13.8.2. Load Profiling

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| New South Wales,<br>South Australia,<br>Queensland | AEMO must prepare a CLP for each relevant Profile Area in accordance with ~~Schedule 11 clause 2.1 and~~clauses 13.3.3 and 13.3.4 of Metrology Procedure Part B apply the CLP(s) by Profile Area to the consumption energy data from the applicable first tier controlled load Accumulation Meters and from the applicable second tier controlled load type 6 *metering installations* in accordance clauses 13.3.3 and 13.3.4 of Metrology Procedure Part B~~with Schedule 11 clause 2.2~~ to produce *interval metering data*.<br>This requirement does not apply to Ergon Energy's distribution area. |

AEMO must prepare an NSLP by each Profile Area in accordance with section 15 of Metrology Procedure: Part B and apply ~~the NSLP~~it by Profile Area to the *metering data* from type 6 *metering installations* to produce *interval metering data* for type 6 *metering installations*.

~~Where *metering data* has been Substituted, AEMO must advise affected *Registered Participants* at the same time as that *metering data* is sent to *Market Participants* for *settlements*.~~

This requirement only applies to the Jurisdiction specified in the following table:

| Jurisdiction | Variation in accordance with Jurisdictional policy |
|---|---|
| New South Wales<br>Queensland<br>South Australia<br>ACT | AEMO must enable the transfer to AEMO of parameters for the calculation of a weekly load scaling factor, which represents the *estimated* ~~*consumption energy*~~ *data* for First-Tier Controlled Loads. |

# 14. EMERGENCY PRIORITY PROCEDURES

~~Clause 7.8.5(b) of the NER requires AEMO to establish emergency priority procedures.~~

## 14.1. Criteria for determining Emergency Condition

While AEMO does not intend to restrict LNSPs and MCs from agreeing on a definition of 'emergency condition' in their service agreements, AEMO expects the definition to take into consideration the following criteria:

(a) Disruption to power supply to one or more Sites, regardless of duration

(b) Risk of environmental damage, injury or fatality to any person from *distribution network* equipment due to their proximity to that equipment

(c) Potential for or the presence of risk to public safety.

(d) Mandatory restriction of power supply

(e) Disruption to communications network used in the delivery of *metering data*

(f) Operational difficulties due to acts of nature~~s~~, such as flooding and cyclones.

## 14.2. Metering Installations Affected

LNSPs and MCs may adopt different definitions of 'emergency condition' where Accumulation Meters are situated and where Interval Meters are situated.

In no circumstances will type 7 *metering installations* be affected by an 'emergency condition'.

## 14.3. Prioritisation of Services by ~~Metering Coordinator~~MC in Emergency Condition

LNSPs may prioritise the delivery of services from MCs by agreement provided that those services that are required for safety purposes, such as *disconnection* or reconnection must be prioritised over those services that are required solely for commercial reasons.

~~LNSPs may prioritise the delivery of services from MCs in their services, by agreement or ad hoc, provided that those services that are required for safety purposes, such as *disconnection* or reconnection are prioritised over those services that are required purely for commercial reasons.~~

## 14.4. Other Laws Prevail

Nothing in section 14, or in a services agreement between an LNSP and MC, overrides any requirement to comply with the NER or any other law relating to the safety of any person, property or the environment.

Whilst an MC may agree to supply services to an LNSP related to an emergency condition, the MC is not able to contract out of its obligations in the NER through that agreement.