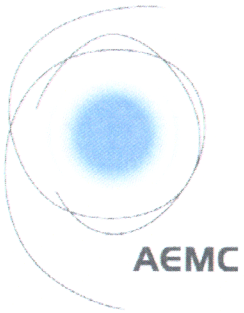

Australian Energy Market Commission

Draft Rule Determination

Draft National Electricity Amendment Integration of NEM Metrology Requirements Rule 2007

Rule Proponents
NEMMCO

18 October 2007

Signed:.....

John Tamblyn
Chairman
For and on behalf of
Australian Energy Market Commission

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Citation

AEMC, Draft National Electricity Amendment Integration of NEM Metrology Requirements Rule, 18 October 2007, Sydney

About the AEMC

The Council of Australian Governments, through its Ministerial Council on energy, established the Australian Energy Market Commission (AEMC) in July 2005 to be the Rule maker for national energy markets. The AEMC is currently responsible for Rules and policy advice covering the National Electricity Market. It is a statutory authority. Our key responsibilities are to consider Rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

Contents

Summary

The Australian Energy Market Commission (Commission) makes this draft Rule determination and attached draft Rule on NEMMCO's proposal relating to the integration of National Electricity Market (NEM) requirements in accordance with section 99 of the National Electricity Law (NEL).

On 30 April 2007 the Commission received a package of Rule change proposals from NEMMCO which primarily relate to the harmonisation of first tier metering installation requirements into the National Electricity Rules (Rules). The package of Rule change proposals submitted by NEMMCO was the second package of Rule changes submitted to the Commission in relation to metrology. This continued the ongoing reform to the metrology provisions largely contained in Chapter 7 of the Rules as recommended in the Joint Jurisdictional Review of the Metrology Procedures Final Report (JJR).

By way of background, the JJR report was completed in October 2004 and recommended that NEMMCO lead a series of reforms and recommendations as proposed in that report. On 3 February 2006 NEMMCO submitted the first metrology Rule change package which sought the following changes to the Rules in relation to second tier loads:

- A single Metrology Procedure to replace the separate existing national and jurisdictional Metrology Procedures (Chapter 7);
- Various amendments to Chapter 7 that adopted recommendations from the JJR report;
- Editorial changes within Chapter 7 that improved the readability, corrected errors, and recognised the creation of the National Measurement Institute; and
- Providing for the Local Network Service Provider (LNSP) to be deemed the responsible person responsible for type 5, type 6 and type 7 metering installations given that the jurisdictional derogations in Chapter 9 on this matter were due to expire on 31 December 2006.

The Commission largely adopted the proposed amendments subject to modifications and alterations and the *National Electricity Amendment (Metrology) Rule 2006 No.17* was made on 9 November 2006. The Rule applied to connection points through which Market Participants purchased any market load and connection points through which market customers sold any second tier load.

This Rule Change Proposal (referred to as the Integration of NEM Metrology Requirements) seeks to:

- Incorporate and harmonise metrology requirements for first tier connection points, which are currently under the responsibility of individual participating jurisdictions, with the NEM metrology framework;
- Consequential upon the Commission accepting the above changes, the Rule changes aim to harmonise current jurisdictional metrology requirements for first

tier connection points with existing requirements for second tier connection points to the maximum extent possible, consistent with jurisdictional policy;

- Remove duplication of requirements within the existing Rules;
- Address NEM efficiency issues identified as a consequence of the industry consultation undertaken as part of NEMMCO's integrate first tier metrology project;
- Address a metering installation audit issue identified by NEMMCO; and
- Address minor editorial changes identified when developing the change proposals above.

The Commission is satisfied that the draft Rule is likely to contribute to the NEM objective, and that it satisfies the Rule making test. For this reason, the Commission has determined to make this draft Rule determination and accompanying draft Rule under section 99 of the National Electricity Law (NEL).

In this draft Rule determination, the Commission has generally accepted NEMMCO's proposed metrology Rule changes with some modifications and enhancements. As a result of submissions received, the Commission's analysis , and a review of the wording of the proposed Rule, the Commission has made a number of drafting amendments and made modifications on some specific matters of the proposed Rule that have operational implications. The key modifications made by the Commission are:

- Integrating type 5, 6 and 7 first tier load metering installations into the framework that currently exists for type 5, 6 and 7 second tier metering installations thereby retaining the role of the LNSP for those installations (Rule Proposal No.3, see p.21);
- Integrating alterations and enhancements to metering installations requested by financially responsible Market Participants into the existing framework in clauses 7.3.1, 7.3.4 and 7.3.6 (including cost recovery) (Rule proposal No.4, see p.36);
- Not adopting the measurement of losses between the connection point and the metering point as part of this round of metrology Rule changes (Rule proposal No. 6, see p.42);
- Clarifying the roles and arrangements for requesting and witnessing tests of metering installations (Rule proposal No.8, see p.52);
- Clarifying the conditions for a metering installation to be classified as a type 7 metering installation (Rule proposal No.15, see p.80);
- Moving the identification of Australian and International Standards to the Metrology Procedure with the power to identify standards clearly contained in the Rules; and
- Various savings and transitional arrangements largely included to accommodate the integration of first tier metering installations into the NEM (see p.115).

The Commission also seeks feedback on a number of policy issues from interested stakeholders that have been identified through the analysis of the NEMMCO proposal and submissions. These issues are:

- The appropriate date for the grandfathering of first tier metering installations. A second related point is whether there should be a transitional period for those installations that do not meet the jurisdictional requirements or the requirements in the Rules (Rule proposal No.2, see p.25);

- The appropriateness of the arrangements for Victorian first tier load metering installations that are currently preserved in the savings and transitional arrangements, and whether there should be an end date for these arrangements, (Rule proposal No.3, see p.28);

- Where stakeholders have a view that the issue of losses between the connection point and metering point should be addressed in the context of this round of metrology Rule change proposals, they are invited to make a detailed case as to a proposed methodology for ascertaining these losses including the consideration of alternative methods to ascertain losses and providing quantitative analysis of the impact of those methods (Rule Proposal No.6, see p.42);

- The basis for measurement of accumulation meters for non market generating units where the threshold is currently based on 1 MW. Consideration should be given to whether it would be more appropriate for this threshold to be measured by volume limit (e.g. "r" volume limit) (Rule change proposal No.7, see p.49); and

- The reasons for the use of in-house calibration processes and the quality control systems that surround these processes. The Commission also seeks feedback as to whether the phrase 'reference/calibrated equipment' should relate to all test devices or only to 'reference standards' (Rule proposal No.21, see p.97).

This draft Rule determination sets out the reasons of the Commission in accordance with the requirements of the NEL and sets out the Commission's assessment in relation to the above proposed changes. The draft Rule, which has been made in accordance with this assessment, is attached.

The Commission invites submissions on this draft Rule Determination by 13 December 2007. Submissions may be sent electronically to submissions@aemc.gov.au or by mail to:

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235
Fax: 02 8296 7899

All submissions should be prepared and lodged in accordance with the Commission's *Guidelines for making written submissions on Rule change proposals* which is available at the Commission's website at www.aemc.gov.au.

In accordance with s.101 of the NEL, any interested person or body may request that the Commission hold a pre-determination hearing in relation to the draft Rule

Determination. Any request must be made in writing and must be received by the Commission by no later than **25 October 2007**.

1 NEMMCO's Rule proposal

On 30 April 2007 the Commission received a package of Rule change proposals from NEMMCO which primarily related to the harmonisation of first tier metering installation requirements into the Rules. NEMMCO states that these Rule change proposals sought to achieve the following objectives:

- Consistency with the NEL and the NEM objective;
- Alignment with the JJR recommendations without re-visiting the assessments made in their review;
- Include technical metrology provisions for first and second tier customers;
- Ensure that, where necessary, existing first tier metering is 'grandfathered' with respect to compliance with technical metering standards; and
- Non technical matters that are to apply in each jurisdiction, such as consumer protection requirements are to continue to be the responsibility of each jurisdictional regulator or the AER.

NEMMCO states in its proposal that in developing the first tier metrology Rule change proposals that it had consulted with jurisdictional regulators and industry. Consultation with industry was through the Metrology Reference Group (which has industry representation at an operational level) and the Retail Market Executive Committee (which has industry representation at an executive level).[1] Through this consultation NEMMCO received submissions from industry requesting where possible that the existing numbering in the Rules remain unchanged. The reason for this request from industry was to minimise the significant amount of time and cost required to update compliance systems and amend procedures that refer to Rules clauses.

NEMMCO's 26 Rule change proposals arising out of the "Integration of First Tier Metrology" project can be divided into 6 categories in terms of what these are attempting to achieve.

NEMMCO list these categories as: [2]

Group 1 - Incorporate and harmonise metrology requirements for first tier connection points, which are currently under the responsibility of individual jurisdictions, into the NEM metrology framework and include the following Rule change proposals:

- Number 1 – Extend the scope of Chapter 7 of the Rules to include metrology for all connection points in the National Grid; and
- Number 2 – Grandfathering of existing first tier requirements.

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1 NEMMCO Rule change proposal, Attachment A, p.1.

2 NEMMCO Rule change proposal, Attachment A, p.5.

Group 2 - Consequential upon accepting these changes above, these Rule changes harmonise current jurisdictional metrology requirements for first tier connection points to the maximum extent possible, consistent with jurisdictional policy. The Rule change proposals under this group are:

- Number 3 – Jurisdictional variations in the election of the responsible person;
- Number 4 – Recognition of arrangements to provide facilities in addition to those normally provided by the responsible person;
- Number 5 – Data storage capacity of type 6 metering installations;
- Number 6 – Management of losses between connection point and metering point;
- Number 7 – Metering standards for non-market generation;
- Number 8 – Process for the conduct of a participant requested meter test;
- Number 9 – Record keeping;
- Number 10 – Rights of access to metering data;
- Number 11 – On site meter testing;
- Number 12 – Metering databases;
- Number 13 - Metering installation malfunctions;
- Number 14 – Security seals; and
- Number 15 – Type 7 metering installations.

Group 3 - Remove duplicate requirements within the existing Rules and includes the following Rule Change proposal:

- Number 16 – Data validation, substitution and estimation.

Group 4 - Address NEM efficiency issues identified as a consequence of the industry consultation undertaken as part of NEMMCO's Integrate First Tier Metrology project and include the following Rule Change proposals:

- Number 17 – Incorporate Queensland's minimalist transition approach to full retail competition (FRC) in the Rules;
- Number 18 – Use of standard set of terms and conditions;
- Number 19 – Time setting;
- Number 20 – Design standards;
- Number 21 – Recognition of International Laboratory Accreditation Cooperation (ILAC);

- Number 22 – Timeframes for inspection and testing of various metering installation types;
- Number 23 – Review of overall accuracy tables (Rules Schedule 7.2); and
- Number 24 – Single table of requirements (Rules Schedule 7.3).

Group 5 - Address a metering installation audit issue identified by NEMMCO and includes the following Rule change proposal:

- Number 25 – NEMMCO audit of meter 'test results'.

Group 6 – Address the minor editorial changes identified when developing the Rule change proposals and includes the following Rule change proposal:

- Number 26 – Editorial changes within Chapter 7.

A detailed analysis of each individual Rule change proposal is included in this paper in section 5 below.

1.1 How NEMMCO considers the Rule change proposal meets the NEM objective

1.1.1 Promotion of efficient use of electricity services and the management of risk

NEMMCO states that the continued harmonisation of metrology requirements as proposed in its package of Rule change proposals is expected to reduce the number of regulatory instruments applying to metrology. NEMMCO states that the package of Rule change proposals also bring together similar regulatory requirements contained in separate jurisdictional instruments into a common location. Furthermore NEMMCO states that the removal of jurisdictional variations in metrology requirements would reduce the regulatory risk to industry participants in relation to compliance and therefore encourage those industry participants to operate outside their home jurisdiction. NEMMCO therefore concludes that the proposed changes should lead to increased competition within geographic areas of the NEM and assist retailers and service providers to manage compliance across jurisdictional boundaries.[3]

1.1.2 Promotion of efficient investment

NEMMCO states that the harmonisation of metrology requirements across the NEM and the identification and removal of jurisdictional differences will greatly assist equipment manufacturers to deliver common products that meet NEM wide requirements. NEMMCO also states that the Rule change proposal would facilitate

3 NEMMCO Rule change proposal, Attachment A, p.3.

investment by Metering Providers and Metering Data Providers by reducing the risks of investing and operating across jurisdictional boundaries.[4]

NEMMCO states in its Rule change proposal that a single metrology framework for first and second tier metering installations would facilitate the transfer of consumers between Local Retailers and second tier retailers without the need for changes to the metering installation. NEMMCO states that this is expected to lead to a reduction in meter churn, and a greater willingness upon service providers to invest in metering equipment. NEMMCO then conclude that this would be expected to promote more efficient investment in metering installations.[5]

1.1.3 Support retail competition and the long term interests of consumers

NEMMCO states that the harmonisation of the Second Tier metrology requirements through NEMMCO's first package of metrology Rule changes promoted competition in the NEM. NEMMCO propose that this package of Rule change proposals would be expected to deliver further levels of harmonisation. NEMMCO states that the reduced industry costs, achieved through harmonisation would eventually flow to consumers through the benefits of competition, and are therefore in the long term interests of consumers.[6]

1.1.4 Good regulatory practice and consistency with public policy settings

NEMMCO proposes that bringing the current multiple jurisdictional metrology requirements into a single national harmonised framework would create a more predictable and stable regulatory environment. It also states that this would increase the transparency of the operation of the NEM and reduce differences between government regulators or at a minimum, make differences between government regulators more visible.[7]

NEMMCO states that the package of Rule change proposals seek to establish a set of national metrology requirements that are likely to be consistent with the Ministerial Council on Energy's Retail Policy Working Group's activities to develop a national framework for distribution and retail regulation.

4 Ibid

5 Ibid

6 NEMMCO Rule change proposal, Attachment A, p.3.

7 NEMMCO Rule change proposal, Attachment A, p.4.

2 Background

This Rule change proposal relates to metering and the move to provide cost effective metering to the market, by integrating the requirements for first tier loads into the metrology framework provided for in Chapter 7 of the Rules.

By way of background to the NEMMCO proposal, the two key structural features of metering in the NEM are explained below:

- The 'tier' structure for connection points (i.e. first tier and second tier) in section 3.1; and
- Metering installation 'types' in section 3.2.

In addition, a history of the development of metrology reforms prior to this Rule change proposal is provided in section 3.3.

2.1 Tier structure for connection points

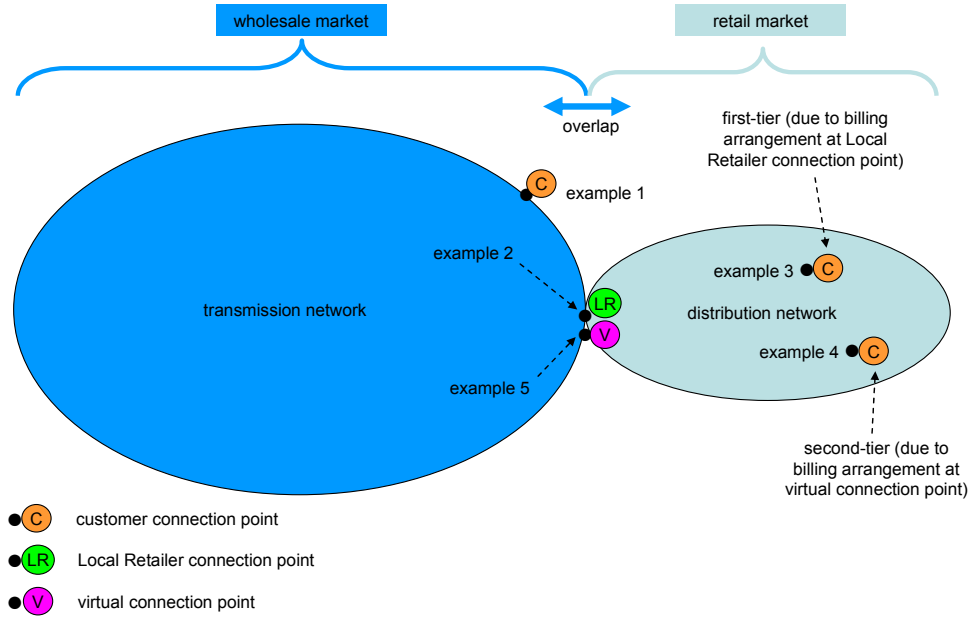
A 'connection point' is an agreed point of supply established between parties on the transmission network or the distribution network. There are several different ways to configure connection points for customers[8]:

1. On the transmission network for an end-use customer (example1);
2. On the transmission network for a licensed retailer (examples 2 & 5); and
3. On the distribution network for an end-use customer (examples 3 & 4).

These are shown graphically in Figure 2.1.

8 Connection points also apply to generating units, but these are not represented in this explanation.

Figure 2.1 Various configurations for a customer 'connection point



A connection point in some instances is a physical concept and in other instances a virtual concept. Physically, a connection point receives its electricity from the transmission network, either directly (examples 1 and 2) or via the distribution network (examples 3 and 4). Alternatively, a connection point receives its electricity by virtue of a referred distribution connection point (example 5).

Overlayed on the 'connection point' is the NEM wholesale billing function. In examples 1 and 2, the customer must be registered as a wholesale participant with NEMMCO, and is billed for its electricity consumption directly by NEMMCO. In example 3, the customer is billed by the Local Retailer, who is in turn billed by NEMMCO due to its example 2 connection point. In this combination, the load consumed at the example 3 connection point is classified as a 'first-tier load'[9]. Hence, the connection point is generally referred to as first-tier. In examples 4 and 5, the customer is billed by a retailer[10] who has a virtual connection point (example 5), who in turn is billed by NEMMCO due to this virtual connection point. That is, the example 4 connection point is referenced to the example 5 connection point. In this combination, the load consumed at the example 4 connection point is classified as a 'second-tier load'[11]. Hence, the connection point is generally referred to as second-tier.

9 If this customer were to choose to register with NEMMCO, then the customer would be classified as a 'First-Tier Customer'.

10 Often referred to as a 'second-tier retailer' or a FRMP.

11 If this customer were to choose to register with NEMMCO, then the customer would be classified as a 'Second-Tier Customer'.

2.2 Metering installation types

Another of the NEM's structural features is that each connection point must have a metering installation. The components of a metering installation include measurement transformers[12], measurement devices[13], and data transport facilities[14]. The characteristics of these devices vary with the quantity of electricity flowing through the connection point and the quantity separates the metering installation into the following four types:

- Flows greater than 1,000 GWh per annum (type 1);
- Flows between the range of 1,000 GWh and 100 GWh per annum (type 2);
- Flows between the range of 100 GWh and 0.75 GWh per annum (type 3); and
- Flows less than 0.75 GWh[15] per annum (type 4).

In regard to measurement, the characteristics of the devices vary across these 4 types, and are largely differentiated by increasing accuracy requirements for higher electricity flows.

For all these types, the data transport facilities are called on to provide 2 distinct functions. One function is to provide actual measurement data for use in NEM prudential calculations[16]. The other function is to provide measurement data for use in the NEM settlements process[17].

To provide measurement data for NEM prudential calculations on a daily basis, the data transport facilities of a metering installation need to be electronic and remotely accessible. The need for electronic remote access to measurement data for type 1, 2 and 3 load groups is undisputed. That is, all electricity flows greater than 750 MWh per annum must have remote electronic access to their measurement data.

For the type 4 load group, there is a range of views on the quantity at which remote electronic data transport facilities become economic. According to the JJR report there appears to be general agreement amongst the Jurisdictional Regulators[18] that this quantity should decrease over time as technological innovation occurs in the market. For this reason, the principle that one load type be available to support remote electronic transport of measurement data down to zero MWh has been

12 Namely, current transformer and voltage transformer.

13 Namely, a meter which may have an internal storage register or external storage register for the measured data.

14 Can be electronic or manual, each with there own set of quality controls.

15 Most commonly known as 750 MWh which is (identical to 0.75 GWh).

16 The data required for NEM prudential calculations is required to be submitted to NEMMCO on a daily basis. NEMMCO will generally accept estimated data where the data collection process has failed or is not otherwise available on any one day.

17 The NEM settlements process has a weekly cycle, with four revisions over time to enable actual measurement data to be progressively provided to NEMMCO. The timeframe for NEM settlements measurement data is much longer than the time frame for NEM prudential calculations.

18 See JJR report, Section 4.4.1, page 49.

adopted, with additional flexibility introduced to cater for local practices where manual data transport facilities are supported by a jurisdiction.

As agreed by all participating jurisdictions at the commencement of FRC in 2002 for Victoria and NSW, 3 local practices were identified:

- Where the device is an interval meter and the data transport facility has a manual collection step - type 5;
- Where the device is an accumulation meter and the data transport facility has a manual or electronic collection step - type 6; and
- Where there is no measurement device and hence no data transport facility - type 7.

For continuity with the type 1, type 2, type 3 and type 4 categories, these 3 conditions were designated as type 5, type 6 and type 7, with the quantity of electricity to which they apply set as a flexible cap. For type 5 and type 6, the maximum value of the cap was 750 MWh, and the minimum value of the cap was zero MWh[19].

Type 5 currently applies for quantities in a range between 0 MWh and 160 MWh in each of the jurisdictions excluding Queensland where the range is 0 MWh to less than 100 MWh. The lower the range, the greater the coverage for type 4 metering installations. This flexibility will permit jurisdictions to gradually reduce the influence of the type 5 and 6 practices in their jurisdictions over time.

The type 7 metering installation applies to unmetered loads only. A number of typical connection point locations where the 7 types would be installed are shown in Figure 2.2:

[19] If set at 750 MWh, the type 5 effectively replaces the type 4. If set at zero MWh, then effectively the type 5 would not be permitted, and all loads would need a type 4 arrangement.

Figure 2.2 Typical connection point locations for types 1 to 7 metering installations[20]

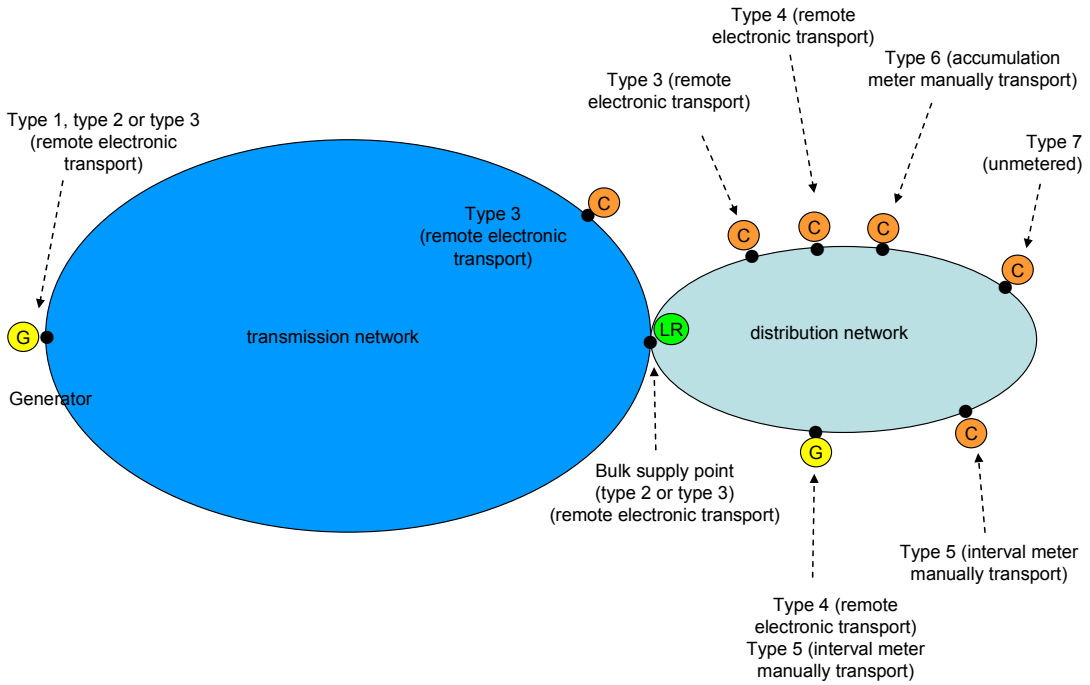


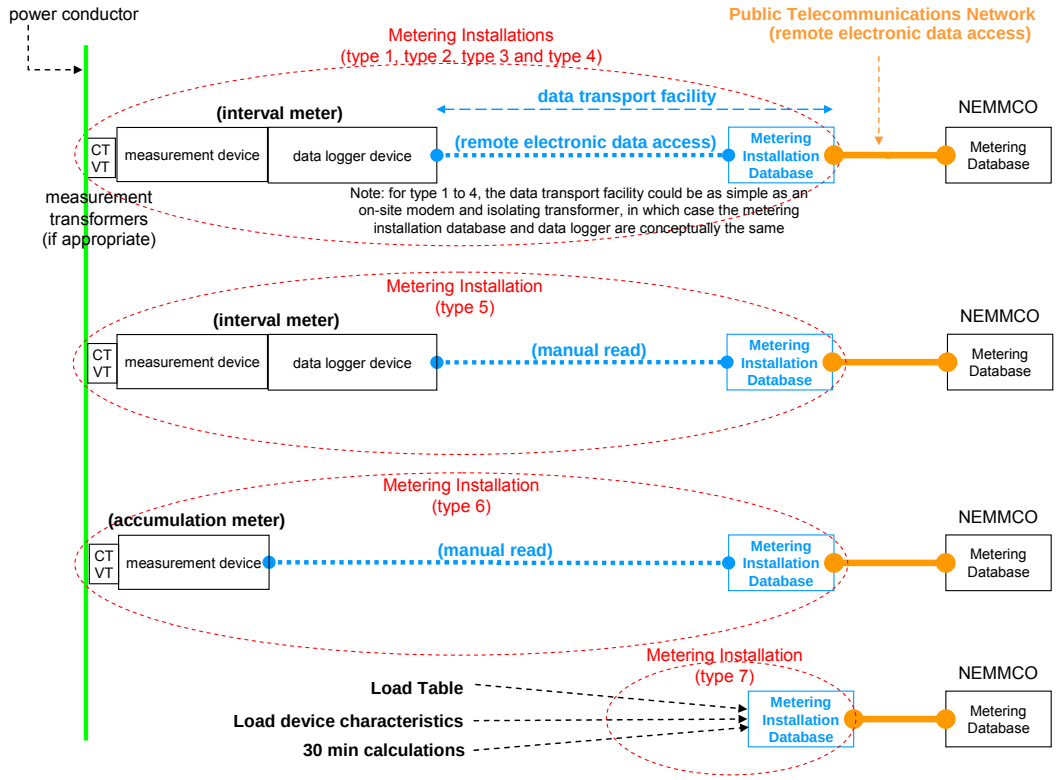
Figure 2.2 shows that a type 5, type 6 and type 7 metering installation would only be located in the distribution network. The diagram also shows that customers who have a type 3 or type 4 connection point may be connected to a distribution network. A customer who has a type 3 connection point may also be connected directly to the transmission network. Each Local Retailer would have at least one transmission network connection point, typically classified as type 2 or type 3, but there is nothing preventing the connection point from being type 1.

The different arrangements of components of a metering installation[21] are shown for metering installation types 1 to 7 in Figure 2.3.

[20] For completeness, the diagram includes generator connection points as well as customer connection points.

[21] It should be noted that the examples are indicative and for the purpose of explanation only.

Figure 2.3 Components of Metering Installation types 1 to 7



Note that for types 1 to 4 metering installations, the data transport facility may be as simple as an on-site modem and isolation transformer[22]. This basically means that a telephone line (representing the Public Telecommunications Network) is connected to the meter allowing anyone who has been provided with a meter password (including the Metering Data Agent, Metering Provider, NEMMCO and a Customer) to access the data in the meter. In this example, the metering installation database and the data logger device would be the same device.

2.3 Development of Metrology Reforms

Prior to the incorporation of NEMMCO's first metrology package into the Rules in 2006 the metrology procedures for 5 to 7 metering installations were the responsibility of Metrology Coordinators (assigned to Jurisdictional Regulators). These changes were introduced into Chapter 7 of the Code at the commencement of FRC in 2002.

At this time, NEMMCO produced 4 metrology procedures (for each of the types 1 to 4 metering installations). Each Jurisdictional Regulator produced one metrology

[22] Or an on-site modem and a mobile phone.

procedure to cover their combined types 5, 6 and 7 metering installation responsibilities. In total, there were 9 separate metrology procedures in operation in the NEM.

At the commencement of FRC in Victoria and NSW[23] changes were made to Chapter 7 of the Code to support the contestability of small volume connection points.[24] As part of these arrangements derogations were provided to deem the LNSP as the responsible person for metering installations types 5, 6 and 7 in specified circumstances.

The changes were carefully constructed to enable a jurisdiction's historical practices[25] to be accommodated across an undefined transition period. For example, Victoria had one distribution company that handled metering services while NSW had a number of distributors and therefore a number of metering service providers.

The three major practices[26] were identified and included in the changes to Chapter 7 of the Rules at that time. To give confidence that these major practices would be fairly and consistently applied by each jurisdiction, controls were established in Chapter 7. The major controls were:

- To appoint a 'Metrology Coordinator' to be responsible for these 3 practices;
- To require these practices to be documented in a transparent 'metrology procedure';
- To impose a review on the type 5 and type 6 metering installations and jurisdictional metrology procedures to be completed by December 2003; and.
- To impose a limit above which these types could not apply. The first limit chosen was 160MWh, as set by the jurisdictions.

The practices and their controls did not interfere with the existing rights for a retailer to choose to be the responsible person for type 1, type 2, type 3 and type 4 metering installations, nor the LNSP to perform this role if the retailer so chose.

However, it was recognised that the manual meter reading arrangements associated with two of these practices (interval and accumulation meters) could benefit from economies of scale where the process is managed by the LNSP. The third practice (for unmetered supplies) was closely aligned to LNSP responsibilities within the Distributor.

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23 Victoria and NSW were the first of the Australian States to introduce FRC to consumers in January 2002.

24 In this context, 'contestable' means that a person who receives electricity at a connection point has the choice of which licensed retailer will supply that electricity.

25 In addition to Victoria and NSW, QLD, SA, ACT and Tasmania were also keen to have an undefined transitional period in which to unwind their historical metering practices.

26 There were 3 major practices: accumulation meters that were manually read (classified as type 6 metering installations), interval meters that were manually read (classified as type 5 metering installations), and unmetered connection points (classified as type 7 metering installations).

On application by each jurisdiction, the ACCC had authorised one or more derogations that had introduced FRC enabling the LNSP to be the deemed responsible person for type 5, 6 and 7 metering installations.[27] These derogations were included in Chapter 9 of the Code.

NEMMCO advised that prior to conversion to the Rules on 1 July 2005, the Code included a clause[28] which required the Jurisdictional Regulators to jointly conduct a review of metering installations types 5 and 6, and of the metrology procedures. The JJR report published in October 2004 was the jurisdictional regulators' response to this requirement.

On 3 February 2006 NEMMCO submitted the first metrology Rule change package which sought the following changes to the Rules with respect to second tier loads:

- A single Metrology Procedure to replace the separate existing national and jurisdictional metrology procedures (Chapter 7);
- Various amendments to Chapter 7 that adopted recommendations from the JJR report;
- Editorial changes within Chapter 7 that improved the readability, corrected errors, and recognised the creation of the National Measurement Institute; and
- Provisions for the Local Network Service Provider (LNSP) to be deemed the responsible person for type 5, type 6 and type 7 metering installations given that the jurisdictional derogations in Chapter 9 on this matter were due to expire on 31 December 2006.

The Commission largely adopted the proposed amendments subject to some modifications and alterations. The *National Electricity Amendment (Metrology) Rule 2006 No.17* was made on 9 November 2006. The Rule applied to connection points through which Market Participants purchased any market load and connection points through which market customers sold any second tier load.

The Rule change package that has led to this draft determination is the second of a series of NEMMCO Rule change packages regarding metrology that aims to make changes to Chapter 7 of the Rules that align with the recommendations of the JJR report.[29] This Rule change package aims to integrate first tier loads into the Chapter 7 framework.

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27 There had been 2 sets of derogations for Victoria and NSW and one set for SA and ACT. The first derogation for NSW and Vic expired on 31 December 2003. The second derogation for Vic and NSW was due to expire on 31 December 2006 as were the derogations for SA and ACT.

28 Clause 7.13(f)

29 NEMMCO's response to the JJR report, entitled "The Metrology Harmonisation and Data Management Programme Plan" was published on 9 May 2005.

3 Draft Rule Determination

3.1 The Commission's power to make the Rule

The NEMMCO Rule change proposal raises matters about which the Commission may make a Rule (NEL s.94(1)(b)). In particular, the proposed Rule falls under the matters set out in the NEL s.34(1), as it relates to:

- The operation of the national electricity market; and
- The activities of persons participating in the national electricity market or involved in the operation of the national electricity system.

In addition the proposed Rule change falls under the following items in Schedule 1 of the NEL:

- Paragraph 27 which relates to the metering of electricity to record the production or consumption of electricity;
- Paragraph 28 which relates to the registration of metering installations used to meter electricity; and
- Paragraph 29 which relates to the regulation of persons providing metering services relating to the metering of electricity.

3.2 Submissions at the first stage of consultation

On 31 May 2007 the Commission published a notice under section 95 of the NEL which commenced first round consultation on the package of Rule change proposals. The Commission received ten submissions on the Rule change package from:

- Energy Australia;
- AGL;
- Origin Energy;
- United Energy Distribution/Alinta;
- Citipower/Powercor;
- SPAusNet;
- Ergon Energy;
- Transgrid;
- ActewAGL; and
- Metering Dynamics.

3.3 Supplementary submission and extension of time

On 14 September 2007 the Commission received a supplementary submission from NEMMCO in response to questions raised by the Commission as a result of its analysis of the Rule change proposals submitted by NEMMCO. This submission has been published on the Commission's website in conjunction with this draft Rule determination. The Commission considered that it was in the public interest for the Commission to take the time to sufficiently address the complex issues raised by the proposal in relation to the integration of first tier loads. Accordingly on 20 September 2007 the Commission issued a notice under s.107 of the NEL extending the time for publishing the draft determination to 18 October 2007.

3.4 Relevant MCE statements of policy principles

The NEL requires the Commission to have regard to any statements of policy principles in applying the Rule Making test. The Commission notes that currently, there are no specific Ministerial Council on Energy (MCE) statements of policy principles that directly relate to the metering of first or second tier loads contained in the Rules.

3.5 Factors that the Commission may consider in interpreting the NEM objective

The Rule making test set out in section 88 of the NEL requires the Commission to be satisfied that a Rule that it proposes to make will, or is likely to, contribute to the achievement of the NEM Objective. The NEM Objective, which is set out in s 7 of the NEL, provides:

> "The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity and the reliability, safety and security of the national electricity system."

The satisfaction of the NEM objective will be considered individually in each of the 26 Rule change proposals.

4 Analysis of individual Rule change proposals

4.1 Rule Change Proposal Number 1 – Incorporate first tier metrology requirements into the NEM - extend the scope of Chapter 7 of the Rules to include the metrology for all connection points in the national grid

4.1.1 NEMMCO proposal

NEMMCO states that this Rule change proposal is to establish a 'head of power' in the Rules for a single common metrology standard to apply to metering installations regardless of whether energy is purchased through the Local Retailer, a second tier retailer or directly from the NEM.

NEMMCO states that the Rule change proposal aims to broaden the application of Chapter 7 by amending clause 7.1.1 of the Rules. It states that currently clause 7.1.1 restricts the application of Chapter 7 to a Market Customer or a Local Retailer to specific classes of connection points and is of the view that broadening the application to Registered Participants, metering providers and NEMMCO at any connection point will result in a single standard of metrology being applicable to all connection points within the national grid.

NEMMCO therefore proposes to amend clause 7.1.1(a) to provide for the application of Chapter 7 to be in relation to Registered Participants, metering providers and NEMMCO. NEMMCO proposes to remove the restriction placed on market customers in respect of connection points through which it purchases any market load and sells any second tier load. It also proposes to remove restrictions on the Local Retailer in respect of connection points classified as first tier loads to the extent required by the market settlement and transfer solution procedures and B2B (Business to Business) procedures.

NEMMCO states that the proposed changes contribute to the efficiency of the NEM by replacing the need for jurisdictions to separately maintain metrology standards for first tier metering installations, and to ensure that changes at the first tier level are coordinated with changes at the second tier level.

NEMMCO states that service providers will benefit as they will be able to avoid the maintenance of separate compliance registers for first and second tier metering installations. Furthermore, NEMMCO states that the alignment of first tier metrology standards across jurisdictions will simplify the training arrangements for personnel who are operating across jurisdictional boundaries. NEMMCO also states that the rule change proposal will remove the need for service providers to participate in jurisdictional consultations where there is only a low level of participation in that jurisdiction.

NEMMCO states that the harmonisation process would create the opportunity to significantly reduce duplication within regulatory instruments. Furthermore, NEMMCO states that the creation of a common metrology standard would facilitate competition within the metering equipment area because there would be a larger

market for a common standard of metering equipment. NEMMCO states that a single metrology instrument for all metering installations would make the differences in Metrology requirements (to the extent that they continue) between the different first tier and second tier metering installations more transparent. The differences in metrology requirements between the different jurisdictions of the NEM, would also be made more transparent with the introduction of a single Metrology Procedure. NEMMCO also state that the Rule change proposal would be expected to reduce compliance costs and risk to retailers and service providers who wish to operate across the different jurisdictions of the NEM.

4.1.2 Views in submissions

No submissions explicitly commented on this issue.

4.1.3 Commission's considerations

The Commission considers that broadening the application of Chapter 7, so that it not only applies to Market Customers and Local Retailers in specified circumstances, is integral to the integration of first tier NEM requirements.

4.1.4 Assessment of the proposal against the NEM Objective and the Commission's decision

The Commission accepts that removing the restriction on the application of Chapter 7 to first tier customer loads would promote the NEM objective by improving the efficiency of the NEM. Removing such restrictions continues to contribute to the harmonisation of NEM metrology requirements and removes the need for jurisdictions to separately maintain metrology standards for first tier metering installations. Consequently, changes to metrology at the first tier level are coordinated with changes at the second tier level.

The Commission also accepts that the Rule change proposal would reduce compliance costs for some Market Participants including reducing training costs in complying with separate jurisdictional instruments. The Commission also considers that the setting of one metrology procedure may create the opportunity for significant reductions in duplication within regulatory instruments, and that these advantages further represent a promotion of the NEM objective.

The Commission also accepts that the integration of first tier NEM metrology requirements may allow further competition by allowing for a larger market with a common standard of metering equipment. The Commission considers that this may facilitate increased operation across jurisdictional boundaries by Market Participants involved in the area of metering by allowing for more transparency in entering markets in other jurisdictions and reducing compliance costs and risk to those Market Participants.

For these reasons the Commission has decided that this Rule proposal does promote the NEM objective and has decided to adopt the policy intent of this Rule.

4.1.5 Differences between proposed Rule and Draft Rule

The Commission considers that given that Chapter 7 is no longer intended to have limited application, clause 7.1.1 is no longer necessary. The Commission has not accepted NEMMCO's proposed amendments to this clause as it considers it does not provide for any additional requirements not covered by Chapter 7. The clause has therefore been deleted in the Draft Rule.

The Commission has taken the opportunity created by deleted clause 7.1.1 to move the purpose clause in clause 7.1.2 to 7.1.1. This move improves the consistency with the other Chapters in the Rules where the purpose clause is the first clause of the Chapter. Clause 7.1.4 has been renumbered as clause 7.1.2 as a result. The Commission notes NEMMCO's comments on renumbering and considered the minor implications of renumbering in this regard is justified on the basis of the clarity and consistency that the renumbering of rule 7.1 provides.

4.2 Rule Change Proposal Number 2 – Incorporate first tier metrology requirements into the NEM – grandfathering of existing first tier requirements

4.2.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that Recommendation 3.2(b)[30] from the JJR report recommends that, where necessary, existing first tier metering requirements are to be grandfathered with respect to compliance with technical metering standards.

NEMMCO states that the discussion in the JRR report makes it clear that to the extent that current metrology standards for first tier metering might be inferior to the NEM metrology standards, it is not the intention of the JJR recommendations to require an immediate replacement of those existing first tier metering installations. Rather, NEMMCO states that the JJR report proposes that a "ratchet" approach be

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[30] Recommendation 3.2 of the JJR report states "A single national Metrology Procedure should be developed which should:

(a) Include technical metrology provisions for first and second tier customers;
(b) Ensure that, where necessary, existing first tier metering is grandfathered with respect to compliance with technical metering standards…;
(c) Exclude non technical provisions, such as consumer protection, which will continue to be ther responsibility of the jurisdictions;
(d) Be similar to the approach adopted in the CATS Procedures, whereby:
    (i) The jurisdictions continue to be responsible for the key policy decisions underpinning the Metrology Procedure; and
    (ii) Jurisdictional policy differences are identified in tables in the Metrology Procedure; and
(e) seek to ensure that obligations that are duplicated on other NEMMCO procedures and/or the Code are harmonised so that wherever possible the obligations only appear once in the combined metrology requirements.

adopted whereby maintenance or replacement of an existing first tier metering installation would require the upgrade of the metering installation to the NEM standard.

NEMMCO proposes to introduce provisions to allow first tier metering installations that were installed prior to an effective date to be deemed compliant with the Rules if they met the applicable jurisdictional requirements at that effective date. NEMMCO proposes such amendments to the mechanism to adopt the JJR report recommendation.

NEMMCO states that metering installations that are compliant with the current standards as of 30 June 2008 should be grandfathered. NEMMCO states that it has chosen this date on the basis that it is sufficiently in the future that industry participants are forewarned of the need to run down stocks of meters or other equipment that might not be compliant. Further it states that this date approximates the time when the complementary amendments to the associated NEM metrology procedure might be effective.

NEMMCO states that the proposed Rule change will facilitate the introduction of a single common metrology standard for first and second tier metering installations. NEMMCO states that the proposed Rule will also provide the opportunity to commence the accrual of benefits from this harmonisation without the need for a significant investment for the rollout of new metering equipment.

NEMMCO states that this approach provides certainty in relation to the technical standards to be applied without impinging on future decisions on meter rollouts to be made either as a policy decision (for interval meters) or as an investment decision (for the replacement of superseded equipment).

4.2.2 Views in submissions

In its submission to this Rule change proposal Ergon Energy states:

> "Ergon Energy supports the proposed introduction of a mechanism to permit the grandfathering of existing first tier metering requirements. In this context, Ergon Energy considers the proposed sunset date of 1 January 2008 to be appropriate, provided that the existing grandfathering for type 6 metering installations permitted under section 2.3.6 of the draft Metrology Procedure is retained.
>
> Section 2.3.6 currently provides that:
>
> Meters for a type 6 metering installation, which have been installed, or which are held in stock for the reasonable person, prior to the effective date of the metrology procedure, and which met the requirements of a participating jurisdiction at that time, are deemed to meet the requirements of this Metrology Procedure.

That is, Ergon Energy wished to confirm that Schedule S7.2.1 of the NER and section 2.3.6 of the draft Metrology Procedure are not considered inconsistent." [31]

4.2.3 Commission's considerations

The Commission considers that the adoption of a grandfathered provision is consistent with the general principles of reform and represents good regulatory practice. Accordingly, the Commission supports the intent of the proposed change, which is to provide a grandfathered provision for metering installations that are compliant with current jurisdictional arrangements at a specified date (currently 30 June 2008 in the Draft Rule). This would avoid requiring the immediate replacement of first tier metering installations following the inclusion of first tier metering standards within the Rules.

Regarding Ergon Energy's concern about the consistency between the metrology procedure and Rules, the Commission has not substantially deviated from the provisions proposed by NEMMCO, however the Commission has made amendments (specifically noted in the next section). The Commission notes that it has no control over changes to the metrology procedure, as this can only be undertaken by NEMMCO as provided in the Rules. However, the Commission further notes that the metrology procedure cannot be inconsistent with the Rules.

The Commission has modified NEMMCO's proposal to improve transparency and regulatory certainty in relation to the requirements that are to apply to first tier loads that meet applicable jurisdictional requirements. The Commission considered that the requirement that first tier metering installations meet 'applicable jurisdictional requirements' as not sufficiently robust as the basis for not having to transition to the requirements in the Rules. The Commission therefore has included a requirement on NEMMCO to publish in the metrology procedure, the relevant jurisdictional requirements that are to apply to first tier metering installations on this transitional basis.

The Commission has not accepted NEMMCO's proposed date of 1 January 2008 as the date when first tier metering installations will be grandfathered if they meet the appropriate requirements, as it is unlikely the Rule will be made before that date. The Commission seeks comment on whether 30 June 2008 is the appropriate date for the grandfathering of first tier metering installations.

In analysing the Rule change proposal the Commission notes that the draft Rule does not contain transitional arrangements for metering installations that are not compliant with the current jurisdictional arrangements or the requirements in the Rules as at 30 June 2008. The Commission invites comment from stakeholders as to whether transitional arrangements should be included in the Rule to be made and if so, the timing for those arrangements.

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[31] Ergon Energy Submission p3

4.2.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission is of the view that the proposed Rule allows for the introduction of a single common metrology standard for first tier and second tier metering installations without the requirement for significant investment by Market participants to rollout new metering equipment. It is also the Commission's view that this Rule change proposal provides certainty in relation to the technical standards to be applied to first and second tier metering installations. The Commission considers that this objective has been achieved without impinging on the future decisions as a policy decision in relation to interval meters or as an investment decision in relation to the replacement of superseded equipment.

For these reasons the Commission is of the view that this Rule change proposal does promote the NEM objective and has adopted the policy intent of the proposal in its draft Rule.

4.2.5 Differences between the draft Rule and the proposed Rule

In adopting the policy intent of the draft Rule the Commission was of the view that the grandfathering arrangements represented transitional provisions and were therefore more appropriately located in Chapter 11 of the Rules. The Commission has also included a requirement for NEMMCO to publish the relevant jurisdictional requirements that will apply to grandfathered first tier metering installations in the metrology procedure.

4.3 Rule Change Proposal No. 3 – Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – Jurisdictional variations in the election of the responsible person

4.3.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the current Rules limit the election of the responsible person by the Financially Responsible Market Participant (FRMP) to type 1-4 metering installations only. NEMMCO states that the current Rules define the LNSP as the responsible person for types 5-7 metering installations. NEMMCO however states that two jurisdictions in their first tier metering instruments have allowed for variations in who can be the responsible person for first tier connection points for some type 5 and 6 metering installations.

NEMMCO therefore proposes to provide a head of power to permit the responsible person for first tier type 5 and type 6 metering installations to be determined in the same manner as for type 1-4 metering installations if authorised in the Metrology Procedure.

NEMMCO also seeks to improve the readability of clauses 7.2.2 and 7.2.3 in relation to the cross referencing of clause 7.2.4 which deals with joint metering installations.

NEMMCO states that the proposed Rule change reflects the outworking of previous consultations undertaken by the Essential Services Commission of South Australia (ESCOSA) and the Essential Services Commission (Victoria) (ESC). NEMMCO states that through this process, ESCOSA and the ESC established that a variation in the requirements for the election of the responsible person resulted in a benefit as determined in accordance with jurisdictional policy.

NEMMCO states that the inclusion of these policies into the national framework maintains the efficiencies and improvements previously determined by these jurisdictions.

4.3.2 Views in submissions

4.3.2.1 Clause 7.2.2(a)

ActewAGL comments that:

> "ActewAGL believes that this statement will undermine the Distribution company's investment into smart meter technologies, and seems to also contradict clause 7.2.3(a)(2). We are also concerned about stranding assets, thus increasing costs."[32]

Ergon Energy states:

> "Ergon believes that the triggers for a Market Participant electing to act as the responsible person should be clarified. In particular:
>
> - The reference to 'Metrology Procedure for first tier loads' implies that the metrology arrangements for first tier loads will exist independently of the Metrology Procedure.
>
> - The trigger for the election in clause 7.2.2(a)(2) is ambiguous and should be amended to read respectively
>
>> … another type of metering installation for first tier loads if allowed in the metrology procedure
>>
>> A Market Participant is the responsible person for a type 1,2,3 or 4 metering installation, or another type of metering installation for first tier loads if allowed in the Metrology Procedure"

[32] ActewAGL submission, section 2.2.

This would be consistent with the proposed drafting in clause 7.2.3(b).[33]

Citipower and Powercor state:

> "there is no reason for clause 7.2.2 to be subject to clause 7.2.4 because clause 7.2.4 should not alter the primary responsibilities prescribed in clause 7.2.2. It would be more appropriate for clause 7.2.4 to be subject to clause 7.2.2.
>
> the addition of subclause (2) leaves it up to the Metrology Procedure to prescribe the responsibility without any limitation. This seems to be inconsistent with the usual Rules and Metrology Procedure hierarchy. This could also lead to the situation where responsibilities are different for first and second tier metering.
>
> Consider deleting subclause (a)(2)
>
> Consider providing a grandfathering provision for any type 5 or 6 metering installation installed under jurisdictional arrangements before a certain date where the responsible person is not the LNSP." [34]

SP AusNet states:

> "It is appropriate that the determination of the responsible person be a matter to be documented in the Rules as it is a fundamental aspect of the arrangements for metrology. It impacts on the basis of fundamental obligations of participants. Including on the basis of the regulatory obligations and price arrangements for Distributors.
>
> It would therefore seem inappropriate that the determination of the responsible person for first tier loads (which are still the majority of market energy) are left to be determined by the Metrology Procedure rather than the Rules as proposed in this change.
>
> Although this is only meant to apply to loads greater than 160 MWh in Victoria, it is wrong that this vital qualification on the broad requirements of the Rules with respect to responsible person allocation for first tier loads is left to the Metrology Procedure." [35]

United Energy and Alinta state:

> "…are concerned that the changes as drafted provide for the Metrology Procedure to specify where responsibility lies for first tier metering

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[33] Ergon submission p.3.

[34] Powercor submission, p.2.

[35] SP AusNet submission, p.3.

installations without any limitations or constraints. The businesses consider that the Rules, rather than the Metrology Procedure, are the appropriate instrument in which responsibility for metering installations should be specified. A grandfathering approach could be used to cater for any existing situations where the responsible person role has been elected based on the existing jurisdictional arrangements for first tier metering installations, similar to that adopted in clause S7.2.1(c). This is preferred over the existing jurisdictional decisions for first tier metering which are inconsistent with the Rules."

United Energy and Alinta recommend the removal of this clause.[36]

4.3.2.2 Clause 7.2.2(b)

Ergon states:

"Ergon believes that the triggers for a Market Participant electing to act as the responsible person should be clarified. In particular:

- The trigger for the election in clause 7.2.2(b) is ambiguous and should be amended to read …

  … another type of metering installation for first tier loads if allowed in the Metrology Procedure

  A Market Participant is the responsible person for a type 1,2,3 or 4 metering installation, or another type of metering installation for first tier loads if allowed in the Metrology Procedure.

This would be consistent with the proposed drafting in clause 7.2.3(b)." [37]

Citipower and Powercor state:

"Clause 7.2.2(b) clarifies the responsibilities for type 1, 2, 3 and 4 metering installations under certain circumstances. The words provided by the NEMMCO proposal should be deleted as they refer to other metering types 5 or 6.

An additional clause (c) should be included, to provide for the grandfathering of existing type 5 or 6 metering installations for first tier loads.....[clause provided]." [38]

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36 United Energy and Alinta submission, p.2.

37 Ergon submission, p.3.

38 Citipower and Powercor submission, p.3.

SP AusNet states:

"If under clause 7.2.4 the installation is a "shared metering installation" then a party other than the Market Participant may be the responsible person.

SP Ausnet recommend an additional sub-paragraph (3)." [39]

United Energy and Alinta state:

- "Recommend deleting the words proposed by NEMMCO; and
- Recommend adding a new clause 7.2.2(c) to grandfather existing sites." [40]

4.3.2.3 Clause 7.2.3(a):

Ergon states:

"Ergon believes that the triggers for a Market Participant electing to act as the responsible person should be clarified. In particular:

- The operation of clause 7.2.3(a) should be made subject to an election by a Market Participant under clause 7.2.2." [41]

Powercor states:

"There is no reason for this clause to be subject to clause 7.2.4 because clause 7.2.4 should not alter the responsibilities prescribed in clause 7.2.3. It would be more appropriate for clause 7.2.4 to be subject to clause 7.2.3." [42]

SP AusNet states:

"It would appear that this clause should not be subject to clause 7.2.4 because that clause does not contemplate the LNSP being nominated by NEMMCO, only one of the Market Participants.

The wording proposed by NEMMCO should be deleted." [43]

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39 SP AusNet submission, p.4.

40 United Energy and Alinta submission, p.2.

41 Ergon Energy submission p.3.

42 Citipower and Powercor submission, p.3.

43 SP AusNet submission, p.4.

4.3.2.4 Clause 7.3.2(i)

Citipower and Powercor state:

> "This clause creates a significant uncertainty about the arrangements that are to prevail in relation to the selection of the responsible person and should be deleted. The issue is dealt with under clause 7.2.2." [44]

SP AusNet states:

> "The Metrology Procedure change associated with this Rules change proposal as it is currently drafted by NEMMCO does not define what the basis is of the relationship for those situations where the market participant has the choice of provider of a type 5/6 meter.
>
> If this clause is to stand as drafted then this detail must be added by NEMMCO to the associated Metrology Procedure revisions." [45]

SP AusNet suggests that:

> "Remove clause (depending on SA situation) or NEMMCO must ensure that the basis of the offer is included under the Metrology Procedure revisions." [46]

United Energy and Alinta state:

> "recommend removing clause 7.2.3(i)." [47]

4.3.2.5 General comments on proposed changes

Metering Dynamics states:

> "this is not seen as harmonising but enabling jurisdictional variations again."[48]

In its supplementary submission NEMMCO states:

> "Rules change proposal No.3 in the package proposes that the Rules in certain circumstances allow the Metrology Procedure to set out which market participant may be responsible for first tier metering installations.

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44 Citipower and Powercor submission, p.4.

45 SP AusNet submission, p.6.

46 SP AusNet submission,p.6.

47 United Energy and Alinta submission, p.2.

48 Metering Dynamics submission, p.1.

The purpose of the proposed Rules was to allow arrangements the Essential Services Commission of South Australia (ESCOSA) and the Essential Services Commission (Victoria) (ESC) has in place to continue. These arrangements allowed the retailer to choose to be the responsible person for certain first tier customers with type 65 and 6 metering installations. This jurisdictional policy is not consistent with the responsibility arrangements currently in the Rules for second tier customers.

Following further consultation with the relevant jurisdictions, South Australia indicated their special arrangement is accommodated and therefore they do not require the proposed Rule.

Victoria has indicated that while this Rule is necessary in transition, there is not an ongoing requirement for the Rule in Victoria. That is, under the current jurisdictional arrangements for first tier market loads greater than 160 MWh per annum with type 5 or 6 metering there is between 100 to 150 sites for which the retailer is the responsible person, these meter types for large customers are not consistent with the Rules, but are intended to be grandfathered until a change is necessitated. At the time of such a change, type 4 metering would be required and the retailer may assume the responsible person role.

NEMMCO has continued to work with the jurisdictions to harmonise the Metrology Procedure and is now of the view that the Rules Change Proposal No. 3 should be varied so that the Rule becomes a transition arrangement under Chapter 11, clearly indicating that the arrangement is not permanent and that it is to accommodate arrangements in place that should continue when the metrology arrangements are harmonised but will not continue as a permanent arrangement." [49]

4.3.3 Commission's considerations

The Commission considers that the underlying policy question associated with this Rule change proposal is whether a Market Participant (such as a retailer) may choose to be the responsible person for type 5 and type 6 metering installations or whether the LNSP should exclusively be the responsible person for these metering installations with respect to first tier loads. This question arises out of NEMMCO's proposed amendments to clause 7.2.3 which propose to allow a Market Participants to be the responsible person for type 5 and 6 first tier metering installations in accordance with the Metrology Procedure. The Commission notes that a Market Participant may elect to be the responsible person for first tier loads with types 1-4 metering installations.

The Commission also notes that the LNSP is responsible for types 5 and 6 metering installations on first tier loads in all NEM jurisdictions besides Victoria and South

[49] NEMMCO supplementary submission pp.1-2.

Australia. The Commission notes that jurisdictional positions have arisen due to the historical development of metering in the NEM (see section 2.3, p.16).

In addition the Commission notes that in its supplementary submission NEMMCO has outlined that there are approximately between 100 to 150 meters in Victoria that are type 5 or 6 first tier metering installations for which the Local Retailer has responsibility under current jurisdictional arrangements. All of these contestable meters in Victoria where the Local Retailer has responsibility are above 160MWh. NEMMCO has requested in its supplementary submission that the Local Retailer retain exclusive rights for responsibility of these metering installations.

The Commission notes the concerns raised in submissions regarding the potential lack of clarity and certainty as to the arrangements regarding the responsible person being set out in the Metrology Procedure. The Commission also notes concerns raised in submissions regarding the potential to undermine investment in new technology that may also arise from NEMMCO's original proposal.

In its supplementary submission NEMMCO advise that the South Australian jurisdiction no longer requires the provision outlined in the Rule change proposal and that the Victorian jurisdiction only requires the provision as a transitional arrangement for approximately one hundred to one hundred and fifty metering installations that have the Local Retailer as the responsible person

The Commission has decided to adopt transitional arrangements for Victoria in relation to the type 5 and 6 first tier metering installations that have the Local Retailer as the responsible person. These arrangements would cease when the meter is replaced or if the consumers change their retailer. In either of these events the Local Retailer will not have the option to elect to be the responsible person for that metering installation.

The Commission notes however that no end date has been proposed for the grandfathered provision applying to the Victorian jurisdiction. The Commission seeks comment from interested stakeholders as to whether an end date should be included in the Rule and what that end date should be.

4.3.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that it is primarily addressing the harmonisation of responsible person arrangements in this Rule change proposal. The Commission is not addressing the policy issue regarding the most appropriate arrangements for the responsible person in relation to metering installations (particularly type 5 and 6 metering installations). The Commission is of the view that for the purposes of harmonising jurisdictional arrangements into the Rules the arrangement whereby the LNSP retains exclusivity with respect to being the responsible person for type 5 and type 6 metering installations should be maintained. The Commission considers that consistent metrology requirements across the jurisdictions improves the opportunities for innovation and efficiency with respect to the provision of metering services in the NEM. Only two jurisdictions in the NEM do not currently apply this approach. The Commission has been advised by NEMMCO that the metering installations in the South Australian jurisdiction are able to comply with the

requirements of the draft Rule. NEMMCO has also advised the Commission that the Victorian jurisdiction contains between one hundred and one hundred fifty metering installations that will not be able to meet the requirements of the draft Rule.

Recognising that the Victorian metering arrangements currently involve some market participants having elected to be the responsible person, the Commission considers that transitional arrangements should be put in place that allow the current responsible person to continue in this role (whether they are or are not the LNSP). The Commission notes that this will affect approximately one hundred to one hundred and fifty metering installations. However under these transitional arrangements. There will be no provision for market participants to elect to be the responsible person in Victoria for type 5 and type 6 meters:

- For new meters;
- For meters where the LNSP is currently the responsible person;
- For meters where a non-LNSP market participant who is the responsible person elects to no longer be the responsible person; or
- For meters having a non-LNSP responsible person and the customer concerned changes retailer.

The Commission considers that given this measure is transitional in nature and any change of classification of these installations will require the role of the responsible person to be addressed in accordance with the current framework (therefore moving the installation within the framework of the current Rules), the inconsistency of these arrangements will not detract from the improved integration of metrology requirements and the promotion of the NEM objective.

4.3.5 Differences between the draft Rule and the Proposed Rule

The Commission has adopted the proposed provision contained in NEMMCO's supplementary submission with some drafting modifications. The provision is contained in the savings and transitional arrangements in Chapter 11 which allows the Market Participant for specific first tier loads with a type 5 or 6 metering installation to continue to be the responsible person for that metering installation.

4.4 Rule Change Proposal no. 4 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – recognition of arrangements to provide facilities in addition to those normally provided by the responsible person.

4.4.1 NEMMCO proposal

NEMMCO in its Rule change proposal states that jurisdictional provisions allow end-use customers access to additional facilities at metering installations at the end use customers expense. NEMMCO states that the provisions allow parties to install or

modify metering installations to include capabilities that are in addition to those normally provided by the responsible person.

NEMMCO states that the rule change proposal recognises jurisdictional arrangements that allow retailers to facilitate the provisions of "value added services" to end-use customers and provides a "head of power" for these to be incorporated into the NEM Metrology Procedure. NEMMCO also propose that the supporting clauses within the NEM Metrology Procedure cover aspects such as payment, technical requirements and timing requirements.

NEMMCO proposes that this change promotes the delivery of end use customer expectations, satisfaction and quality by providing a mechanism that facilitates the interaction between the end-use customer and retailer for alternatives or enhancements to a metering installation at an end-use customers request.

4.4.2 Views in submissions

Energy Australia states:

> "There is also a risk that the provision for additional facilities (Rule change number 4) could conceivably result in large scale switch outs of existing metrology assets." [50]

Ergon Energy states;

> "While Ergon Energy supports the inclusion of a head of power to facilitate the provision of value added services by retailers, the ability of the Metrology Procedure to address issues of payment and LNSP cost recovery is questioned in the light of the contrary legal advice on this issue that Ergon Energy understands has been obtained by NEMMCO since the Rule changes were submitted.
>
> It is suggested that clause 7.3.6 should be expanded to explicitly address the issue of cost recovery in circumstances where the LNSP installs "alternative" metering at a retailers request
>
> It is queried whether the reference to "cannot be the responsible person" in clause 7.2.3(j) unduly restricts Market Participants in Victoria and South Australia from requesting an alternative type of metering installation in circumstances where there is a right of election with respect to first tier loads that is not exercised. If this outcome was in fact not intended, it is suggested that this phrase be amended to "is not the Responsible Person".[51]

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50 Energy Australia submission, p.1.

51 Ergon submission, p.4.

Citipower and Powercor state:

> "The wording infers that the Market Participant would undertake the installation of the "different" metering installation." [52]

Citipower and Powercor submitted some marked up text that amended the NEMMCO proposal in the following way:

- "Change "withhold its consent" to "refuse"; and
- Add "…for the LNSP…" before "to install". " [53]

SP AusNet state:

> "This clause is only applicable to type 5/6 installations as the Market Participant can be the Responsible Person for a metering installation for type 1 to 4.
>
> Whereas the clauses (ca) to (j) define a process for type 5/6 meters which requires a fair and reasonable offer, it is unclear what the financial basis of the arrangement is for the non standard meters the LNSP must install under a request under this clause.
>
> SP AusNet consider that this should be made clear and that this should be on the basis of the relationship being a commercial one with respect to the increment over and above the base level meter regulated price.
>
> The current wording could be taken incorrectly to mean that the Market Participant would install the non standard metering installation." [54]

United Energy and Alinta state:

> "for clarity the businesses suggest that the words "for the Local Network Service Provider" be added after the word "request" in line 3." [55]

In its supplementary submission NEMMCO states;

> "The Rules at clause 7.3.1(c) and (g) anticipate that a metering installation may be used for functionality beyond the provision of metering data to NEMMCO, while clause 7.3.6 governs payment for metering.

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52 Citipower and Powercor submission, p.5.

53 Ibid

54 SP AusNet submission, pp.6-7.

55 United Energy and Alinta submission, p.2.

> The proposed clause 7.2.3(j) permits the Market Participant (Financially Responsible Market Participant) to arrange for the metering installation to be changed to another type – for example from a type 5 to a type 4 – or to provide additional facilities to what the Local Network Service Provider (LNSP) would otherwise provide.
>
> The purpose of the proposed change is to ensure that in circumstances where the metering installation is provided by the network under regulated charges, the Market Participant (i.e. retailer) is not prevented by the rules from competing with other retailers on the basis of additional functionality at the metering installation."

Subsequent to the submission of this Rule change proposal to the AEMC, it has been identified that NEMMCO will be unable to harmonise the jurisdictional cost recovery clauses into the metrology procedure as intended due to a lack of an adequate head of power. The provisions anticipated to be included in the Metrology Procedure would have required the party requesting the new metering functionality to pay additional costs above those which the LNSP would normally incur.

An alternative approach to dealing with the original proposal would be to incorporate within the Rules the necessary provisions relating to costs. Specifically, Rules clause 7.3.6(g) relates to costs associated with alterations that lead to a change in classification of a metering installation. Utilising the existing framework within the Rules, a possible approach is to extend this provision to support proposed Rules change 7.2.3(j) for type 6 to type 5 metering installation changes and additional functionality.[56]

4.4.3 Commission's considerations

The Commission is supportive of providing the ability for end use customers to be able to alter a metering installation for any specific value added requirements. Submissions have been broadly supportive of the Rule change proposal whilst raising particular issues.

Submissions have raised a variety of issues in relation to this Rule change proposal. The first issue raised in submissions was the application of the provision in the NEM, particularly, as arrangements regarding the identification of the responsible person for metering installations may differ in relation to; types of metering installation. As well as differences in the type of metering installation there are also differences between the jurisdictions in identification of the responsible person. The Commission considers that there should be no limit on which parties should be able to request an alteration or enhancement to the metering installation, and so the provision should apply to all jurisdictions and meter types. However, the Commission considers that the right to make such a request and the scope of the alteration of the installation should be contained within the Rules.

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56 NEMMCO supplementary submission, pp.2-3.

The Commission considers that the existing framework for alteration of metering installations in clause 7.3.4 can be sufficiently expanded to incorporate NEMMCO's proposal while retaining the ability of LNSP to alter certain metering installations due to operational difficulties. Similarly, the Commission considers that clause 7.3.1 currently allows for enhancements to the metering installation and that it would be appropriate to expand this clause to accommodate NEMMCO's proposed amendments.

Submissions have also raised the issue of cost recovery. NEMMCO's supplementary submission has concurred with views in submissions that the Metrology Procedure is not able to provide for cost recovery. Currently cost recovery for the alteration of first tier metrology installations is provided for in jurisdictional instruments. The Commissions notes that in its supplementary submission NEMMCO proposes that these instruments continue to provide for cost recovery.

The Commission however, considers that matters of cost recovery should be addressed in the Rules. For cost recovery to continue to be provided in jurisdictional instruments is inconsistent with the policy objective of harmonisation metrology requirements. This is particularly so as the metering installations themselves that will be the subject of any request for cost recovery would be regulated within the framework of the Rules. For this reason, the Commission has incorporated the cost recovery for the LNSP of a market participant requesting to alter a meter into the cost recovery provisions in clause 7.3.6.

4.4.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission is of the view that providing for the modification of metering installations beyond those modifications and alterations identified by the responsible person provides benefits to end use customers. While the Commission notes that a proposal of this kind may raise the potential for impacts to system security and reliability through the modification of installations, the Commission considers that these risks can be effectively managed.

The Commission has included NEMMCO's proposed amendments within the existing framework for alterations, and modifications to metering installations, which includes providing for cost recovery. The Commission considers that this enhancement contributes to a consistent and efficient mechanism for providing these benefits to end use customers. The Commission therefore considers the advantages of this Rule change proposal outweigh the risks and that the proposal does promote the NEM objective. The Commission has therefore decided to adopt this Rule change proposal into its draft Rule.

4.4.5 Differences between the Draft Rule and the Proposed Rule

In accommodating NEMMCO's proposal within the existing framework of the Rules, the Commission has made modifications to the existing alteration arrangements in clauses 7.3.1 and 7.3.4. The cost recovery for such alterations will fall within the scope of clause 7.3.6.

4.5 Rule Change Proposal no. 5 - Consequential change to harmonise jurisdictional metrology requirements - data storage capacity of type 6 metering installations.

4.5.1 NEMMCO proposal

NEMMCO in its Rule change proposal state that currently data storage capacity requirements for interval metering installations are set out in the Rules and data storage requirements for accumulation metering installations are set out in jurisdictional instruments. NEMMCO states that to harmonise jurisdictional metrology requirements with the NEM metrology requirements, it is necessary to incorporate additional requirements into the national framework that are not currently addressed by either the Rules or the NEM Metrology Procedure.

NEMMCO states that the proposed Rule change will incorporate the data storage requirements for accumulation metering, as outlined in jurisdictional instruments. NEMMCO states that as a result, the relevant clauses of the Rules will specify the data storage requirements for interval metering installations and accumulation metering installations.

NEMMCO state that the proposed Rule change improves the clarity of obligations and requirements in relation to data storage capacity of type 6 metering installations, increasing efficiencies and reducing the risk of non compliance. NEMMCO states that the single definition for the storage of energy data within accumulation meters is consistent with the harmonising benefit by the JJR report.

4.5.2 Views in submissions

ActewAGL states:

> "this statement appears to give the impression that after 12 months, the meter can reset itself and now excludes the previous 12 months consumption.
>
> It is suggested that the phrase "over a period of at least 12 months" be deleted." [57]

Origin states:

> "It is unclear as to what this type of clause is trying to achieve. It is understood that type 6 metering does not have the ability to store data.
>
> It is suggested that the text be removed or qualified." [58]

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57 ActewAGL submission, section 2.2.

58 Origin submission, p.2.

4.5.3 Commission's considerations

The Commission considers that the proposed provision is a technical requirement and its inclusion is therefore supported. The Commission notes that the rules currently provide for a continuous requirement to record total accumulated energy[59] and that this requirement applies to all types of metering installations. The Commission also notes that the current provision refers to a visible display which is a facility to record the accumulation energy for that metering installation.

In examining the issues raised in submissions the Commission has made some alterations to the wording of the clause for clarification which are noted below.

4.5.4 Assessment of the proposal against the NEM Objective

The Commission considers that the adoption of this Rule change proposal is necessary for the integration of first tier NEM requirements into the Rules and therefore considers that this Rule change proposal does promote the NEM objective.

4.5.5 Differences between the proposed Rule and the Draft Rule

The Commission has made some amendments to the clause in the Draft Rule to clarify the operation of the proposed clause. The Commission has qualified the word "record" with "continuously" and has deleted the reference to "at least 12 months" to take into account the point raised by ActewAGL. In response to Origin Energy's submission the Commission notes that the visible display on type 6 metering installations is the recording device. The Commission therefore considers that adding the phrase "by a visible display" after "record" improves the clarity of the provision.

4.6 Rule Change Proposal no. 6 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – management of losses between connection point and metering point

4.6.1 NEMMCO proposal

In its Rule change proposal NEMMCO states that it is not always possible to install the metering point at the connection point. NEMMCO states that the management of energy losses between the connection point and metering point is partly covered in clause 7.3.2 and partly in some jurisdictional instruments and therefore there is a need to harmonise the management of losses and specify a common NEM approach.

NEMMCO states that the energy loss in some circumstances is more than the uncertainties of measurement in the metering installation. NEMMCO further state

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59 Rule 7.3.1(a)(1).

that the difference between "as metered" and "true energy" is material and therefore obligations ensuring satisfactory adjustment to energy values are required.

NEMMCO proposes a change that incorporates aspects of the jurisdictional requirements by providing clarity to the party responsible for the management and adjustment of the losses. NEMMCO states that the proposed changes are consistent with current industry practice and would ensure that the necessary adjustments are made for energy losses between the connection point and metering point, where these are considered material.

NEMMCO states that the proposed Rule change adds clarity and simplifies the current approach by bringing together the management of losses between the connection point into a single location within the Rules. NEMMCO states that this ensures that obligations are in place to deliver the required outcomes. NEMMCO states that a harmonised consistent approach to this requirement facilitates the achievement of the benefits of harmonisation envisaged by the JJR.

4.6.2 Views in submissions

ActewAGL states:

> "What is and who determines "material losses"?
>
> What does "material" mean in this context?
>
> What happens if the parties disagree with the calculations?
>
> Are the losses going to cost companies more than $100k?
>
> Will it not cost more to review a particular site's losses than the gains achieved?
>
> Who wins here?
>
> Is "material" the best word to use here? Why not "significant?"." [60]

Ergon Energy states:

> "Ergon Energy raises serious concerns regarding the practical application of the proposed changes for the management of losses
>
> Many typical installations would fail to comply with sub-clause 7.3.2(bc) as it is currently drafted (eg. High rise buildings where meters are installed in submains). It is considered that a loss greater than that envisaged in sub-

[60] ACTEWAGL submission, section 2.2.

clause 7.3.2(bc) would be expected in the majority of cases due to the voltage drop alone in the consumers main between the point of connection and the meter. In this context, it is understood that a 5% voltage drop at maximum load is permitted in the consumer's mains under the SAA wiring rules." [61]

Ergon Energy therefore believes that:

- "The materiality threshold in sub-clause 7.3.2(bc) should be urgently re-assessed; and

- As the requirement to assess 'materiality' is site specific in nature, the costs to the responsible person in undertaking the assessment should be clearly weighed against the benefits that are considered to be derived in assessing whether the amendment contributes to the achievement of the NEM objective." [62]

Citipower and Powercor state:

"Citipower and Powercor are concerned that the materiality threshold is too low and the provisions may unintentionally encompass a large number of small customers where the assessment is not practical and where the losses are currently included in the distribution loss factors.

The clause should be deleted leaving the determination of "material" up to the discretion of the responsible person or a different materiality threshold be defined that takes into account the size of the load and the magnitude of the losses to avoid a costly and impractical outcome." [63]

SP AusNet states:

"For the majority of metering installations the metering point and the connection point do not correspond exactly and hence there will always be losses between the metering point and the connection point. Therefore this clause in the existing Rules requires a tripartite agreement regarding the adjusting of the metering data for almost all installations. This is obviously an unworkable requirement.

NEMMCO and the industry agreed that this correction for losses, and hence this agreement, was only required where the losses were material i.e. they were outside the range of normal installations for which the broad network DLF's apply. To make the definition of "material" any more stringent than that implied by the DLF figures would seem to disregard the basis of the

61 Ergon submission, p.4.

62 Ergon submission, p.4.

63 Citipower and Powercor submission, pp.6-7.

approved DLF's and in the extreme distort the DLF calculation by double accounting for these higher loss sites.

There is no basis given in the changes support document for the choice of 50% of the energy attributed to the maximum permissible error of the metering installation. For a type 5 installation this would limit the error due to losses to 0.75%.

SP AusNet has not carried out a detailed analysis of the losses attributed to customers installations between the connection point and the meter, however from our preliminary analysis it is likely that the level of losses specified in the draft could easily be exceeded in a reasonably significant minority of customer's installations.

This would impose a new obligation with relatively significant costs onto the LNSP to identify these installations, carry out assessments of the losses in these circumstances, and set the envisaged correction factors. Ultimately these costs will be passed to customers. Further a whole new process for establishing and communicating and agreeing on these correction factors would be involved if this clause stands as is.

The limitation on the level of losses currently experienced by customers is currently largely driven by the regulatory restrictions on voltage drops at maximum demand in the two components of the customers' supply. The Distributors have obligations to maintain voltage levels at the point of connection through the Code, and the voltage drop in the consumers mains is subject of requirements in the AS 3000 wiring rules.

To date these requirements appear to have been deemed by industry and NEMMCO to generally be sufficient to ensure that the average losses are not "material". Despite a reasonable number of installation audits over the years of the market, we know of no circumstances where NEMMCO has found that a metering installation was deficient because no correction method had been agreed.

SP AusNet consider that the thrust of these clauses needs to revert to defining a process which recognises that the normal controls over losses is sufficient except in extreme circumstances, and hence for the Responsible Person to action not based on specific measure of losses but rather based on assessed circumstances.

If this is deemed insufficient then an industry/NEMMCO study is required of typical installations to arrive at a criteria which does not add significantly to the process complexities and costs. The addition of these complexities and costs was not the intent of the changes to this Rule clause.

Whatever the process ultimately included in the Rules for dealing with non coincident connection and metering points, all the clauses (b) to (bc) need reconsideration.

The current clause (b) is not consistent in intent with the new clauses. This clause should be replaced by a clause (bd) which better integrates with the others. If the Responsible Person determines the losses are material (however defined) then they must ensure they are accounted for. Presumably the method for doing this (a correction factor) would need to be subject to some type of review if requested. This would be the subject of the new clause. Clause (b) would then be inconsistent and superfluous." [64]

United Energy and Alinta stated:

"The application of these provisions should be limited to larger customers where the distance between the connection point and the metering point is substantial and where losses may be an issue. The businesses are concerned that a strict interpretation of the current change proposal could lead to requests for a wider application of the requirements, even in residential installations where the distance between the connection point and the metering point may be substantial…

…Rather than specifying a level of materiality, the businesses believe the current approach of absorbing losses into the average distribution loss factors, except for larger customers, is a more cost efficient approach for participants and customers. We suggest that sub-clause 7.3.2(bc) be deleted and the references to material within the balance of 7.3.2 be deleted (3 instances).

Further any requests by a Market Participant under clause (ba) will involve a site visit and measurements to enable the technical calculations to be undertaken to determine the losses. The responsible person should be able to recover the costs incurred in fulfilling the Market Participants request under clause (ba), this would also provide an appropriate cost-benefit discipline on the activity in a similar manner to that proposed in Clause 7.11.2(ae)." [65]

In its supplementary submission NEMMCO states:

"Industry deliberations on this proposed Rules change made no distinction between a large volume connection point and a small volume connection point. Current industry practice is to address measurement errors due to mis-location of the metering point differently for large volume connection points and small volume connection points. At large volume connection points an adjustment is made for identified measurement errors, while for small volume

64 SP AusNet submission, pp.9-11.

65 UE and Alinta submission, p.3.

connection points the adjustment is left to be dealt with in the Distribution Loss Factors (DLF's).

In relation to the determination of materiality, the principle that formed the basis of the original Rules change proposal was that the responsible person should make the initial determination, which may then be challenged by other parties affected by the volume of energy traded at that connection point." [66]

4.6.3 Commission's considerations

The views in submissions may be summarised as follows:

- ActewAGL, Ergon Energy, Citipower/Powercor, SP AusNet, and United Energy dispute that the operation of proposed paragraph (bc) is consistent with current industry practice. This raises the question of the validity of the NEMMCO statement about current industry practice;
- Ergon Energy, Powercor, and United Energy submit that the clause be re-assessed or deleted entirely;
- Powercor and United Energy state that they believe the provisions have some merit for large consumers;
- SP AusNet would like recognition that normal controls over losses are sufficient except in extreme circumstances; and
- United Energy, and Powercor, support the remaining clauses besides proposed paragraph (bc).

The provision that is currently contained in the Rules in paragraph 7.3.2(b) applies to all types of metering installations. At the commencement of the NEM, the current provision applied to types 1, 2, 3 and 4 metering installations only. When full retail competition (FRC) was introduced in 2002 in NSW and Victoria, this provision was not changed and consequently was automatically extended to apply to types 5 and 6 metering installations, in addition to the types 1,2,3,4 metering installations. Whilst the FRC extension only applied to second tier loads, there is no actual difference in this provision between second tier and first tier loads, since a load can change from one category to another at any one connection point without disturbing the physical relationship between the connection point and the meter. For this reason, there should normally be no provision for the introduction of first tier loads into the Rules.

However, NEMMCO states in its proposal that the proposed changes are consistent with current industry practice. On this basis, this variation appears to be a realignment of the current provision with current practice. Paragraph (b) appears to recognise that it is not practical to account for the absolute amount of physical loss and in practice only those losses that are found to be 'material' are accounted for. It appears that this discretion has arisen from the difficulty in interpreting the current

66 NEMMCO supplementary submission, p.3.

provision. On this basis, it is reasonable to assume that there will always be a practical threshold below which the amount of physical (actual) loss would not be accounted for.

The Commission notes that submissions have queried whether NEMMCO's proposed methodology to ascertain losses between the metering point and connection point is the current industry practice. In its supplementary submission, NEMMCO states that for low volume loads, these losses are part of distribution loss factors.

The Commission notes the issues raised in submissions in relation to whether the determination of material losses in the Rules can be appropriately applied to both high volumes and low volumes. The Commission is of the view however that the proposed provision does not appear to be reasonable for low volume loads as the location of a low voltage direct connect meter may be reasonably distant to the connection point due to network infrastructure, customer installation requirements and design limitations. The "connection point" is not well defined in the determination of distribution loss factors. Distribution loss factors in general attempt to pick up all actual losses between the consumer's meter and the transmission connection point related to that load. Accordingly it would be impossible (or impractical) to determine the physical point in the circuit that should be used when applying the test for "material". To rigidly apply the proposed provision would imply that a test of each metering installation must be performed in order to determine whether the "material" threshold had been breached. These tests appear to have no practical value whilst imposing a significant cost on the responsible person.

The Commission therefore has decided not to adopt this Rule change proposal as part of its draft Rule due to the potential for significant and unnecessary costs being imposed onto Market Participants in relation to low volume metering installations. The Commission is of the view that further consideration of the impacts and alternative methods to ascertaining losses is required, including the provision of deemed amount of losses or distribution loss factors.

The Commission is of the view that the issue of losses between the connection point and metering point may be addressed in one of the future NEMMCO metrology Rule change packages. The Commission however invites stakeholders who are of the view that this issue should be addressed in the context of this current Rule change proposal to make a detailed case as to its proposed methodology including the consideration of alternative methods to ascertain losses and providing quantitative analysis of the impact of those methods.

4.6.4 Assessment of the proposal against the NEM Objective

The Commission considers that this Rule change as proposed would be unlikely to promote the NEM objective as it has the potential to impose substantial costs on certain Market Participants without proceeding benefits in excess of those costs. The Commission therefore has not adopted this Rule change proposal into its draft Rule.

4.6.5 Differences between the Draft Rule and the Proposed Rule

The Commission has adopted NEMMCO's proposal with some minor drafting changes.

4.7 Rule Change Proposal no. 7 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – metering standards for non-market generation

4.7.1 NEMMCO proposal

NEMMCO states that jurisdictional instruments have established metering standards for non-market generation that differ from the NEM metering standards and are different between jurisdictions.

NEMMCO states that this proposed Rule change introduces metrology obligations for non-market generation into the NEM metrology framework. NEMMCO states that the different standards for non-market generation need to be addressed in the Rules. NEMMCO states that the adoption of the current NEM requirements for market generators at the time of promulgation of these Rule changes would:

- Represent a significant cost to industry;
- Require the installation of interval metering; and
- Potentially reduce the accuracy of energy measurement.

NEMMCO states that jurisdictional metrology standards for non-market generators use a demand value rather than an energy volume to determine applicable accuracy standards. NEMMCO states that the proposed Rule reflects the jurisdictional instruments in that a generating unit with an output capacity greater than 1 MW is required to meet existing NEM standards, whilst a generating unit with output capacity less than 1 MW is permitted to meet a lesser standard.

NEMMCO states that the jurisdictional standards are based on output capacity rather than annual energy volumes sent out. NEMMCO states that this reflects the low utilisation factors commonly associated with these types of small non-market generating units and the need for higher accuracy standards than might be achieved by using the existing NEM type 1 to 4 energy based standards.

NEMMCO states that the proposed Rule harmonises the approach to metering requirements for non-market generators across the NEM. NEMMCO proposes a metering solution that is lower cost than the existing NEM standards for generators below 1 MW capacity, without compromising the measurement accuracies appropriate for the energy volumes supplied.

NEMMCO states that it does however note that the Rule change proposal does not address the metering standards to be applied to generating units operated by parties exempted from registering with NEMMCO. NEMMCO states that this issue is the subject of a separate NEMMCO review.

4.7.2 Views in submissions

Ergon states:

> "Ergon Energy believes that the proposed amendment in clause 7.3.4A(a)(2) to link the tariff applying to the generating unit with the type of metering installation that should be installed for the generating unit, is inappropriately located in Chapter 7. The content of Chapter 7 and the metrology procedure should be restricted to matters of a technical nature and not address the terms upon which energy may be purchased." [67]

4.7.3 Commission's considerations

There are four types of generator registration. The proposed Rule change relates to non-market generators, where the generator's output is purchased in its entirety by the Local Retailer of a market customer located at the same connection point. Between the commencement of the NEM and current time, Chapter 7 of the Rules only related to the second tier metering installations of distribution networks. The first tier metering installations, whether for a load or a generator, were not covered by the Rules. Accordingly, the Commission considers that it is appropriate in the NEMMCO proposal to specify standards of metering for generator related first tier connection points.

In relation to Ergon's comments no other submission considered that this location was inappropriate; and it also reinforces the view that the higher level issue is whether a non-market generating unit should be permitted to install accumulation meters, rather than interval meters. The Commission is of the view that this rule change proposal deals with metering provisions and that it is appropriately located in Chapter 7 of the Rules.

In analysing this Rule change proposal, the Commission notes that the proposed Rule provides for the installation of an interval meter when time of use rates apply to a generating unit. This condition would only be relevant for a generator that had a type 6 metering installation. A first tier generator has no jurisdictional requirement to upgrade its metering installation with an interval meter.

The proposed Rule also provides for accuracy standards for "new accumulation metering equipment" for non-market generating unit with an output of less than 1 MW. The proposed provision raises the question of whether a new metering installation for a non-market generator should be permitted to contain an accumulation meter. A further issue is that the proposed Rule uses a capacity limit of 1MW or less to determine when a non market generator may have an accumulation meter installed as the minimum requirement. The 1 MW capacity limit proposed by NEMMCO relates to a volume limit of approximately 8700 MWh at a 100% capacity factor. This limit appears to greatly exceed the volume limit set by jurisdictional instruments of 160 MWh (Queensland has an upper limit of 100 MWh).

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[67] Ergon submission, p5

Interval meters have only become generally available in the last fifteen years and generators commissioned prior to this time would have accumulation meters. It raises the policy issue of whether any future non-market generating unit should be installed with accumulation meters, rather than interval meters. The Commission is also aware that the MCE's policy direction appears to favour the progressive rollout of interval meters rather than accumulation meters.

The Commission is seeking comment from stakeholders as to whether the upper limit for accumulation meters should be brought in line with the volume limits set by the jurisdictions. The Commission notes that the Queensland jurisdiction has chosen to reduce its volume limit to further limit the prevalence of accumulation meters. The Commission is seeking comment from stakeholders as to whether an "r" volume limit to be set by jurisdictions, be provided for in the Rules. The Commission envisages that "r" could be set in the Metrology Procedure where further reductions in volume limits as a policy position by the jurisdictions may be taken into account.

The proposed Rule also provides for the measurement of reactive energy for generators with an output of 1 MW or less. The Commission supports the policy intent of this clause. The Commission considers however that the discretion provided to distribution network service providers (DNSPs) to manage whether generators with a nameplate rating of 1 MW or less have their active or reactive energy tested be subject to a test of reasonableness so that the discretion is applied in a reasonable manner. The DNSP is also required to provide reasons for the request. Where the non market generator is of the view that the DNSP's request is unreasonable and refuses the test, the DNSP may invoke the dispute resolution procedures provided for in the Rules. The Commission is seeking comment from interested stakeholders as to their views on this amendment of the proposed Rule that has been included in the Commission's draft Rule.

The proposed Rule requires voltage transformers, current transformers and reactive energy meters to meet the technical requirements in Schedule 7.2 for a type 3 metering installation. The Commission considers that the proposed provisions appear too ambiguous. For example, the reference to the type 3 metering installation as the technical requirement to meet is appropriate for a generator with a capacity of less than 1 MW, but it is not satisfactory for a generator with a capacity of 20 MW. A 20 MW generator would have a maximum output in excess of 100 GWh per annum, which would require a type 2 metering installation. In this case, a type 3 accuracy would not be acceptable. The Commission has varied the proposed provisions in the Draft Rule so that the relevant transformer and the measurement element in relation to a reactive meter must meet the technical requirements appropriate for the appropriate type of metering installation.

4.7.4 Assessment of the proposal against the NEM Objective

The Commission considers that this Rule change proposal promotes the NEM objective by harmonising the arrangements for non market generators in the NEM and consolidating those arrangements into the Rules. The Commission has therefore decided to incorporate the Rule change proposal into its draft Rule subject to some amendments.

4.7.5 Differences between the Draft Rule and the Proposed Rule

The clause has been relocated from the proposed position of clause 7.3.4A to 7.3.1 as it contains similar subject matter to that clause.

As noted in the analysis above, the Commission has modified the requirements in relation to voltage transformers, current transformers and the measurement element for a reactive energy meter so that the requirements for accuracy are appropriate for the relevant type of metering installation.

The term "nameplate rating" has replaced the term "output" in proposed Rule paragraph (9) (draft Rule paragraph (9)) for clarity in regards to the description of the generators capacity according to a base reference point.

The Commission has also made some other minor drafting amendments that are reflected in the Draft Rule to improve the understanding of the clauses.

The Commission has placed the proposed provisions that preserve the arrangements for non-market generating units in the savings and transitional section of the draft Rule.

4.8 Rule Change Proposal no. 8 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – process for the conduct of a participant requested meter test

4.8.1 NEMMCO proposal

NEMMCO states that the current Rules for requested meter tests for second tier metering installations places obligations on NEMMCO to facilitate testing of a metering installation. NEMMCO states that this differs from the while current jurisdictional requirements for first tier metering installations which places the obligation for a requested meter test on the LNSP.

NEMMCO states that for second tier installations, industry believes it would be generally more efficient for testing to be arranged between the retailer and network operator to meet the requirements of individual end-use consumers rather than being facilitated by NEMMCO. NEMMCO states that in the majority of circumstances it is not necessary to have NEMMCO involvement.

NEMMCO states that industry formed the view that it was not possible to eliminate the NEMMCO role from the Rule obligations. NEMMCO states that NEMMCO may still be required to facilitate a test for those situations where the need for the installation test arose from a wholesale market energy data matter, or if the responsible person was tardy in meeting their obligations.

NEMMCO states that industry proposes to harmonise the different requirements to a NEM wide standard whereby a participant may request the responsible person or NEMMCO to undertake a meter test, with an obligation that the party receiving the

request must act. NEMMCO states that the proposed changes will improve industry efficiencies.

NEMMCO states that the proposed Rule change aligns with current industry practice for testing, where the responsible person meets the testing cost if the installation is non compliant, otherwise the requesting party meets the testing cost.

NEMMCO states that the current jurisdictional requirements allowed the end-use customer to attend a test and to make a direct request for testing of first tier metering installations. NEMMCO states however that the model proposed assumes that the end-use customer will make such requests through their retailer. NEMMCO states that jurisdictional instruments contain additional provisions to support the consumer/retailer relationship.

NEMMCO states that this proposal offers an economically efficient model that facilitates jurisdictional requirements for end use consumer requested meter testing. NEMMCO states that the proposal achieves this without the involvement of all market parties, and still permits the more formal meter testing arrangements of the Rules where wholesale market issues are associated with the need for a meter test.

NEMMCO also state that the amendments proposed bring together in one area requirements that are currently split between clause 7.6.1 and Schedule 7.3 (at S7.3.1(d) and S7.3.1(f)) and improve market efficiency by having related provisions together.

4.8.2 Views in submissions

ActewAGL states:

> "Agree with most changes. In point (d), this statement does not give sufficient notice to comply with jurisdictional customer notification periods to access land." [68]

Energy Australia states:

> "the AEMC may wish to consider providing a definition for the term "affected parties." [69]

Ergon Energy states:

> "While Ergon Energy supports the proposed model as more efficient, readability would be assisted by a clearer delineation between the NEMMCO and Responsible Person processes, including clarification that a request to NEMMCO will only be on an "exceptions" basis. This would be consistent with both industry practice and the rationale for NEMMCO's involvement as

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68 ActewAGL submission, section 2.2.

69 Energy Australia submission, p.2.

outlined in the statement of issue (ie where the Responsible Person has failed to undertake the test or the need arises from a wholesale market energy matter).

Ergon Energy believes that the requirement for the Responsible Person to provide notice of when and where a test will be conducted under clause 7.6.1(bb) should be amended to reflect industry practice whereby:

- The request for the test is made by the retailer, on behalf of the customer (usually via B2B service order request); and

- Advice regarding when and where the test will be conducted would be communicated from the responsible person to the retailer and, as appropriate from the retailer to the customer.

As a consequence, the Responsible Person will not usually be in possession of the contact details necessary to provide all "affected parties" (ie if interpreted as including the customer) with the required notice. It is therefore suggested that the reference to "…the Responsible Person must give those affected parties 5 business days notice" should be amended to read:

"…the Responsible Person must give the party making the request 5 business days notice…"

Clarification is sought as to the information that is required to be communicated by the Responsible Person regarding the "method of testing to be adopted", under clause 7.6.1(bb). How is it envisaged that testing other than 'on-site' will be managed under this clause?

It is unclear why there is a need for both sub clauses 7.6.1(e) and (f). Ergon Energy suggests that the subject matter of sub-clause (f) is adequately covered by the broader obligations of sub-clause (e) and accordingly, sub clause (f) should be removed." [70]

SP AusNet provides marked up text in its submission:

"Regarding clause 7.6.1(e):

It would appear that the parties to whom test results are provided in these two clauses should be the same but the wording is different.[71]

70 Ergon submission, pp.5-6.

71 SP AusNet submission, p.12.

Regarding clause 7.6.1(g):

Our expectation would be that all test results whether they show the installation to be compliant or non-compliant must be stored. However the requirement for storing records of tests is covered by 7.6A and this clause should be deleted (or made reference to 7.6A only)." [72]

4.8.3 Commission's considerations

In relation to comments made in submissions to increase the number of business days from two to seven the Commission notes that the current provision in the Rules provides for two days. In addition the Commission notes that the period of two days was introduced at the commencement of the NEM and was not changed at the introduction of FRC. The Commission considers that use of the expression "at least" allows parties (NEMMCO and the relevant responsible person) to reach an agreed period which could vary for each class of end use customer. The provision therefore does not require different periods to be specified for the different types of metering installations and appears consistent with light handed regulation.

Submissions have also called for a definition of affected parties in the Rule. The Commission has amended the clause and replaced "affected parties" with the "Registered Participant". The Commission considered that the term "affected parties" was used to refer to end use customers and retailers as well as parties such as NEMMCO. In a practical sense however the Commission considers that smaller end use consumers would liaise with their retailer who would then contact NEMMCO or the responsible person for a meter test.

Ergon Energy suggests that the proposed Rule be amended to clarify that a request to NEMMCO will only be made on an "exception" basis. The Commission is of the view that providing for a request to be made to NEMMCO on an exception basis (such as if the responsible person was of the view that it was not reasonable to undertake the test, or that the responsible person was tardy in undertaking the test that it agreed to undertake) would remove the ability for participants to conduct "forum shopping" or request two tests of the same meter where they were simply unhappy with the results of the meter test. The Commission has therefore adopted this suggestion into its draft Rule.

Ergon Energy suggests that the proposed Rule be amended to specify that a response to the notice of the test be restricted to the party requesting the test. The Commission notes that this variation appears to reflect industry practice at the jurisdictional level. The Commission has again analysed the practical approach that consumers would normally be expected to liaise with their retailer to partially adopt Ergon Energy's request. The Commission has therefore provided that NEMMCO or the responsible person must advise the "party making the request" and "where the Local Network Service Provider is the responsible person, the financially responsible Market Participant" of the meter test.

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[72] SP AusNet submission, p.13.

The Commission considers that the consumers right to witness the test does not need specific protection in Chapter 7 at this stage of market maturity. The Commission considers that it is enough to allow Registered Participants to apply good industry practice to ensure that the consumer is engaged. In particular there would be a service obligation on the retailer to advise the consumer of the test arrangement if the consumer requested the test through that retailer. There is nothing preventing a relevant consumer from requesting a test from the responsible person, thereby ensuring that the consumer was kept informed of the test by the responsible person. The Commission considers that this arrangement reflects light handed regulation, and should only be prescriptive if events indicate that good industry practice is not being followed. If the consumer was not adequately represented by the retailer or the responsible person, the consumer has a choice to move to another retailer who would provide better service.

In relation to Ergon's suggestion that the proposed provision regarding the "method of testing" be clarified, the Commission notes that the phrase "method for testing" is sufficiently descriptive at this stage of market maturity to require the responsible person to provide information to a reasonable extent on the method to be employed in undertaking the test. If the information was not reasonable, the matter could be resolved through the Rules dispute resolution mechanism. Accordingly, the Commission is of the view there is no additional clarification needed on this matter to improve the clarification of the proposed provision at this time.

Ergon Energy suggests that the provisions in proposed clause 7.6.1(f) are covered by the broader provisions of proposed paragraph (e) and hence proposed paragraph (f) can be deleted. In light of the Commission's amendments to the use of the term "affected parties" the Commission accepts Ergon Energy's suggestion and has amended the proposed Rule accordingly.

4.8.4 Assessment of the proposal against the NEM objective

The Commission is of the view that the Rule change proposal facilitates end use customer expectations in terms of meter testing through their retailer, NEMMCO and the responsible person. The Commission considers that this Rule change proposal is a requirement to provide for the integration of first tier metrology requirements, and that the proposal achieves its aim of consolidating various clauses of the Rules and bringing jurisdictional arrangements into the Rules. For these reasons the Commission is of the view that the proposal promotes the NEM objective and has decided to incorporate the proposal into its draft Rule.

4.8.5 Differences between the draft Rule and the proposed Rule

The Commission has largely adopted the policy intent of NEMMCO's proposed amendments. As noted above, the Commission has included a provision in the Draft Rule to require the responsible person to notify the party who requested the test and the Market Participant (where necessary) of the location, time and method of testing. The Commission has also adopted Ergon Energy's suggestion to clarify that a participant request can only be made to NEMMCO on an exception basis.

The Commission has also made a variety of drafting changes to improve the readability and understanding of the clause. The Commission has also renumbered the clause in light of the new clauses proposed by NEMMCO. The Commission considers the renumbering is minimal in nature and improves the readability of the clause.

4.9 Rule Change Proposal no. 9 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – record keeping

4.9.1 NEMMCO proposal

NEMMCO in their Rule change proposal state that Rules clause 1.9 contains a general requirement for keeping relevant records for 7 years. NEMMCO is of the view that a retention period of 7 years past the record creation date is insufficient when the record relates to the compliance of equipment that may remain in service for a further 20 years beyond the date when the test record was created. NEMMCO therefore states that it is necessary to establish alternative record keeping requirements appropriate to metrology related records

NEMMCO states that each of the jurisdictional metrology instruments specifies the type of records that must be maintained and in some circumstances varies the timeframes required for record retention as a result of factors such as asset management plans and equipment maintenance cycles.

NEMMCO states that the proposed Rule change identifies specific metrology records which must be retained, defined retention periods in terms of related maintenance activities rather than record creation date, and specifies the party responsible for maintaining the relevant records.

NEMMCO states that the proposed Rule change harmonises existing jurisdictional and NEM requirements and identifies specific records essential to establishing the compliance of a metering installation and maintaining the veracity of energy data used for NEM settlement.

NEMMCO states that these records are essential for supporting the resolution of NEM disputes and maintaining a confidence in energy data used in the NEM. NEMMCO states that the proposed Rule, clarifies the responsibility for retention of a record which may exist in duplicate from amongst a group of participants. NEMMCO states that clarity in relation to an understanding of the Rules requirements aids compliance and market confidence resulting in more efficient market processes, thereby contributing to the NEM objective.

4.9.2 Views in submissions

Ergon Energy states:

> "It is unclear exactly what is expected of a responsible person in order to satisfy the requirement under clause 7.6A(e) of storing metering data "in the

form in which it was collected". For example, would the collection of information electronically, via field force automation and the subsequent uploading of the information into a database satisfy this requirement?" [73]

SP AusNet states:

"Our understanding is that metering data does not need to be stored in the form it is collected after 13 months. However the specific requirements for metering data storage is covered by 7.9.1(f) and (g) and this clause should be deleted (or made a reference to 7.9.1(f) and (g) only)." [74]

TransGrid states:

"The draft new clause 7.6A parts (e) and (f) will introduce a new requirement for responsible persons for types 1-4 metering installations to ensure that metering data, in the form it was collected and any adjustments or substitutions, are stored separately for a period of 7 years.

Responsible persons for types 1-4 metering installations are not currently required to store metering data under the Rules.

With reference to the existing Rule 7.9.2(a), NEMMCO is responsible for the remote acquisition of the metering data and for the storing of this data as settlements ready data in the metering database…

….Metering Data Agents for type 1-4 metering installations are engaged by the Financially Responsible Market Participant and are also deeded as agents for NEMMCO. Consequently, there is no commercial relationship between the Responsible Person and the Metering Data Agent. Therefore there is no natural mechanism for the Responsible Person to ensure that the Metering Data Agent's metering data storage systems will satisfy the responsible person's obligations under the draft new clause.

Hence, the responsible person will need to either enter into an additional and new commercial arrangement with the Metering Data Agent to ensure its liabilities are legally and commercially covered, or alternatively, invest in duplicate systems and processes to fulfil its obligations under this proposed Rule change. Either option results in increased costs and no net market benefit, as the Metering Data Agent already is obligated to perform the storage of metering data.

This Rule change proposal in its current form potentially duplicates existing market processes and would therefore result in increased type 1-4 metering

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73 Ergon submission, p.6.

74 SP AusNet submission, p.13.

installations (wholesale market) responsible person ultimately consumer costs and therefore does not meet the NEM objectives efficiency and consumer cost benefit requirements

It is recommended that the scope of the draft clause 7.6A parts (e) and (f) be limited to types 5 to 7 metering installations to be redrafted to assign the responsibility for data storage to those parties who are actually responsible for acquiring the data directly from the metering installations for NEM settlement processes." [75]

4.9.3 Commission's considerations

The Commission considers the requirements for the retention of various test records and metering data records to be appropriate.

In relation to TransGrid's comments, the comments relating to paragraphs (e) and (f) are similar to SP AusNet's comments. The collection of metering data from the type 1 to 4 metering installations is performed by the Metering Data Agents (MDAs) who are engaged by NEMMCO. It is appropriate that the MDA be required to perform the role nominated in the proposed provision, rather than the "responsible person" as specified by NEMMCO in its proposal. The MDA has full control of the "metering database" in accordance with the NEMMCO's contractual arrangements.

The collection of metering data from the type 5 to 7 metering installations is performed by the Metering Data Provider, who is engaged by the responsible person. It is appropriate that the responsible person be required to perform the role nominated in the proposed provision, as specified by NEMMCO. The Metering Data Provider, on behalf of the responsible person, is required to submit the metering data to the NEMMCO system (MSATS).

The Commission accepts that the role of collecting metering data will not always be the same person for all metering installations. The Commission has included a new provision in clause 7.9.1(i) of the Draft Rule as an attempt to address this matter. Instead of referring to the responsible person, the clause refers to person required under Chapter 7 of the Rules to collect metering data for settlements. The Commission seeks feedback from stakeholders as to whether the Commission's proposed solution is appropriate.

4.9.4 Assessment of the proposal against the NEM Objective

The Commission is of the view that the Rule change proposal is a requirement that assists in integrating first tier metrology requirements and subject to the amendments outlined above that there are advantages gained from harmonising existing jurisdictional and NEM requirements. The ability to identify specific records essential to establishing the compliance of a metering installation and maintaining the veracity of energy data used in settlements, promotes of the NEM objective.

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[75] TransGrid submission, p.1.

In addition, the Commission agrees with NEMMCO that a thorough regime of record keeping is essential for supporting the resolution of NEM disputes, and maintaining confidence in energy data. The Commission also accepts that the proposed Rule clarifies the responsibility for record retention, thus contributing to efficiencies in terms of compliance, and Market Participant confidence which result in more efficient market processes. For these reasons the Commission is of the view that the Rule change proposal promotes the NEM objective and has included the policy intent of the proposed Rule into its draft Rule.

4.9.5 Differences between the Draft Rule and the proposed Rule

The Commission has located the relevant draft Rule within clause 7.6.4 as the content of the clause is related to the other matters addressed in Rule 7.6. The Commission has also moved the requirements relating to the retention of metering data records to clause 7.9.1 as the requirements are relevant to the matters addressed in that clause. The Commission has amended clause 7.9.1 to accommodate the relocation of these provisions.

The Commission has made some drafting amendment for clarity while retaining the policy intent of the proposed clause.

4.10 Rule Change Proposal no. 10 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – rights of access to metering data

4.10.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the existing Rules requirements for metering data access specify the parties with either direct or remote access to metering installations, the metering database or the metering register. NEMMCO states that industry participants identified that the current requirements leave some ambiguity as to the entitlements of persons to have direct access to the stored data versus an entitlement to receive data through a service provider or NEMMCO.

NEMMCO states that jurisdictional instruments make provision for end-use customer access to metering data, and provision for this requirement needs to be taken into account in the harmonisation activity. NEMMCO further states that harmonising the differing requirements is in accordance with the JJR report recommendations.

The Rule change proposal, therefore, according to NEMMCO specifies entitlements to data, with further access management being supported by procedures such as MSATS and B2B Procedures and NEMMCO's meter churn guidelines. NEMMCO proposes that an end use customer requiring data will make a request through their FRMP. NEMMCO states that in situations where electronic access to the meter is required by the end-use customer, the involvement of the responsible person would be considered essential (clause 7.8.2(ca)).

NEMMCO states that the current provisions also duplicate the right of access for the "Customer", which is already covered under the category of Registered Participant. Moreover NEMMCO states that the rights of the Registered Participant are detailed in two provisions, proposed clauses 7.7(a)(1) and (6). NEMMCO states that the proposed changes simplify this by referring to the Registered Participant only once at clause 7.7(a)(1).

NEMMCO states that the proposed Rule clarifies data entitlements without mandating a right to direct access to records stored within meters or databases. NEMMCO states that industry participants have identified that improved clarity in relation to clause 7.7(a) will simplify compliance obligations and result in reduced compliance costs in relation to this requirement.

In addition, NEMMCO states that current security practices strictly limit direct access to data held within the metering installation to NEMMCO, the Metering Provider and the party providing data collection services. NEMMCO states that the current wording of clause 7.7(a) has been interpreted as an entitlement to direct access to the metering installation. NEMMCO states that such direct access, has the potential to erode market confidence in the quality of the data held within the metering installation, and consequently erode confidence in the NEM.

NEMMCO states that the proposed amendments are necessary to support a strong security policy in relation to metering data, and hence maintain confidence in market data.

4.10.2 Views in submissions

ActewAGL states:

> "Agree with most changes. Point (a)(7) the sentence is worded incorrectly."[76]

Ergon Energy states:

> "The information that comprises "NMI Standing Data" is broader than metering data or data associated with the meter. As a consequence, section 7.7(a) significantly expands the nature of the information to which the listed parties are entitled. Ergon Energy believes that the reference to "NMI Standing Data" should be removed.
>
> It is unclear upon what basis the Jurisdictional Regulators have been included within the list of parties entitled to receive metering data under sub-clause 7.7(a)(6). Ergon Energy believes that this sub-clause should be removed.
>
> A customers right to metering data should be addressed through jurisdictional instruments, rather than through sub-clause 7.7(a)(8) as

[76] ACTEW AGL submission, section 2.2.

inclusion in the NER creates practical and legal uncertainty regarding the manner in which a customer would be able to exercise its 'right' to access.

Ergon Energy is also concerned that, as drafted, sub clause 7.7(a)(8) implies that a customer may request its FRMP to provide data related to a metering installation of which the FRMP has a "financial interest" but for which the customer currently has no association. That is, there is a financial connection between the FRMP and the metering installation for the purposes of sub-clause 7.7(a)(8), but not the customer and the metering installation." [77]

Metering Dynamics does not support the rule change proposal and states:

"if end-use customers want direct access to the meter, the FRMP and RP will in most cases agree, and MPB and MDP will be obliged to provide and manage a password and work around the customer's times of direct access."[78]

Metering Dynamics states that the impact of the Rule change would be:

"End use customers requiring data request it from their FRMP, if electronic access to the meter is required RP authorisation is required.

…changing wording from "Rights of Access" to "Entitlement" [in the title of the clause] does not change the meaning or the application of this Rule." [79]

A second issue that Metering Dynamics comments on is:

"If the customer, their consultants or their systems, directly access the meter and do not disconnect correctly, this will lock the MDP out preventing them from meeting their market obligations." [80]

A third issue raised by Metering Dynamics (to which they also supplied some marked up text) is:

"Proposed wording 7.8.2 implies that the customer has a mandated right to access the metering installation. Suggested wording below provides more control to the Market Participants responsible for reading and processing the data." [81]

Metering Dynamics provide some marked up text in its submission. Metering Dynamics then state:

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77 Ergon submission, pp.6-7.

78 Metering Dynamics submission, p.3.

79 Ibid.

80 Ibid.

81 Metering Dynamics submission p.3.

> "Providing a 'read only' password to a new end-use customer would enable them to access the previous end-use customer's data directly from the meter, unless it was cleared at the time of transfer. Wording in the Rules should make it clear that the RP/MDP can only provide customer access to metering data for the period when the customer was legally responsible for electricity consumed at the site, or if the new customer has the consent of the previous customer." [82]

Metering Dynamics submits that in their view the impact of this change would be:

> "Data synchronisation issues between customer collected data and market data, due to substitution and revisions, leading to possible data/billing disputes and wasted time. This needs to be managed by FRMP/RP not the MDP." [83]

Origin Energy states in relation to Clause 7.7(a)(8):

> "Clarification is required as to the period for which the FRMP's customer can request data and therefore the length of time the FRMP with the financial interest in the metering installation must hold the data.
>
> It is suggested that the same timeframes apply as detailed in clauses 7.9.1 (f) and (g)." [84]

Origin Energy states on Clause 7.8.2(ca):

> "What constitutes a "read only password"? "Read only Password" should be a defined term. Also where "read only" passwords are not available, direct access to the meter shall be denied to non market participants i.e. the FRMP's customer
>
> As a general comment, Origin notes there is significant evidence that where a financial incentive exists to illegally modify (Hack) an electronic machine, such activities often occur. Origin recommends that the AER is structured to only allow direct access to electronic meters by the minimum number of parties required, and that the AER specifically excludes any form of electronic access to any parties apart from NEMMCO, their agents, and Meter Providers." [85]

Origin Energys submission contains a suggested amendment and definition for "read only password".

Citipower and Powercor state:

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82 Ibid.

83 Ibid.

84 Origin submission, p.2.

85 Origin submission, pp.2-3.

"In clause 7.7(a)(7) the word "is" should be replaced with "in"." [86]

TransGrid stated:

"The draft new clause 7.8.2(ca) proposes to allow the Financially Responsible Market Participant to provide a 'read only' password to its customer, subject to authorisation by the Responsible Person.

"Read only" passwords for accessing metering data held in metering installations must be allocated by the Metering Provider (refer NER 7.8.2(c)) and access to this metering data is to be scheduled by the Responsible Person to ensure that congestion doesn't occur (refer to NER 7.7(c)).

There needs to be an additional requirement for the FRMP to obtain the password for its customer from the Metering Provider, and to schedule its customer's access to the metering data in the metering installation through the responsible person, to ensure visibility of all parties directly accessing metering data from metering installations." [87]

4.10.3 Commission's considerations

The Commission considers that the substance of NEMMCO's proposal in relation to the rights of access to metering data and security controls are appropriate.

Rule 7.7 – Rights of access to metering data

In relation to Ergon Energy's comments to remove the phrase "NMI standing data" in the clause relating to the rights of access to metering data on the basis that it broadens the scope of the information to which listed parties are entitled, it is noted that NEMMCO is silent in its proposal on the need to include this additional information requirement. The Commission notes that the proposed Rule contains provisions with respect to MSATS procedures. This provision permits subordinate documents to be prepared and published by NEMMCO. These documents contain statements relating to NMI standing data. The Rule proposal does not provide industry with a head of power to have access to NMI standing data, whereas such a head of power would clarify this right. The general attempt to clarify industry rights was explained by NEMMCO in its proposal. The Commission has therefore not adopted Ergon Energy's suggestion.

Ergon Energy raised the question as to what basis that the Jurisdictional Regulators have been included within the list of parties entitled to receive metering data. Ergon Energy has submitted that they wish for this provision to be deleted. The Commission notes that Ergon Energy has not provided any reasons in its submission as to why it objects to Jurisdictional Regulators having access to this range of data. The Commission however also notes that NEMMCO is also silent in its proposal on

86 Citipower and Powercor submission, p.8;

87 TransGrid submission, pp.2-3.

the need to include the Jurisdictional Regulators as a party who receives this information. The Commission also notes also that section 7.5(b)[88] of the JJR report gives NEMMCO specific instructions to consider the requirements for access to metering data. However, the JJR report contains no specific instruction to provide data access to Jurisdictional Regulators. The Commission notes that no other interested party made a submission on this point. The Commission therefore seeks the views of interested stakeholders as to whether jurisdictional regulators should be provided with metering data. The Commission also seeks reasons as to how interested stakeholders have arrived at their answer to the previous question.

Ergon Energy also submitted that they would like a customer's right to metering data addressed through jurisdictional instruments, rather than through the Rules. Ergon Energy is concerned that the inclusion of a right in the Rules will create a practical and legal uncertainty regarding the manner in which a customer would be able to exercise that right to access. It is noted that the JJR report gave NEMMCO instruction to consider access rights to data, but gave no detailed instruction in regards to consumer rights. However NEMMCO in its proposal specifically states that "jurisdictional instruments make provision for end use customer access to metering data, and provision for this requirement needs to be taken into account in the harmonised activity". NEMMCO specifically allows for data to be available from its retailer, or remotely from the metering installation via remote electronic acquisition.

The Commission considers that to the extent this right is provided to a consumer in the Rules, there appears to be no limitation for the Rules to provide this right. In particular, it is noted that Clause 34(d) of the NEL specifically enables the Rules to impose a right on any person (other than the AER and AEMC).

Furthermore Ergon Energy is concerned that as drafted the proposed provision permits a customer of a FRMP to obtain access to the information from a connection point metering installation to which it has no association. The Commission acknowledges that this is a possible interpretation and accordingly an amendment has been included in the draft Rule.

Metering Dynamics does not support the ability for the end-use customer to receive the specified information by only making a request to the FRMP. Metering Dynamics state that electronic access to its metering installation should require responsible person authorisation. Metering Dynamics further state that end-use customers should rely on an agreement between the FRMP and the responsible person who will in most cases agree. Metering Dynamics state that if the direct access does not disconnect correctly, the metering data provider (MDP) will be locked out of further access, preventing the MDP from meeting their market obligations. There is no comment on how this problem is rectified by the MDP. The Commission notes that in essence Metering Dynamics agrees that a customer can have electronic access to a metering installation but only if it is approved by the responsible person and the MDP and they have sole discretion on whether access is provided.

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[88] Joint Jurisdictional review of the Metrology Procedures Final Report, October 2004, section 7.5(b)

It is noted that the term MDP is a term that is not used elsewhere in Chapter 7. This is because the term MDP is a term used by NEMMCO to describe a category D Metering Provider, who is engaged under contract by the responsible person to perform certain duties in relation to the metering installation. Further the MDP action is only relevant to types 5, 6, and 7 metering installations. As the responsible person engages the MDP, this person is the correct person to provide permission. It is up to the responsible person to seek approval of their MDP if they so choose. The Commission notes that the Rule change proposal expressly requires the responsible person to manage the access to ensure that congestion does not occur. The Commission envisages that this would entail some form of dialogue with the metering provider, and hence the MDP where applicable. The Commission considers that there appears to be no regulatory benefit in co-jointly including this person in a Chapter 7 provision.

Metering Dynamics suggest that the mandatory requirement on the FRMP be changed to a discretionary requirement in relation to a customer's access to the metering installation. The Commission notes that the discretion would be in favour of the FRMP, to be able to allow customer access not the responsible person. The Commission considers that there appears to be no rationale for giving the FRMP the discretion to withhold a password if it was authorised by the responsible person. Furthermore the Commission considers that there appears to be no regulatory benefit in giving the FRMP the discretion to withhold the password from a customer when the customer has specifically requested electronic access to the metering data. Accordingly the Commission has not adopted this suggestion.

Clause 7.8.2 – Security Controls

In clause 7.8.2, NEMMCO has proposed a new paragraph (ca). The proposed provision removes any doubt that an end use customer can have access to the electronic data in a metering installation. The provision of 'read-only' password to a customer is standard industry policy for first tier customers in NSW, at least, and the Commission considers it is entirely appropriate to include this as a harmonised provision in the Rules.

The Commission considers that the request for the end-use customer to make a request to its retailer (the financially responsible Market Participant) to obtain a 'read-only' password' is appropriate. The Commission however considers that the 'subject to authorisation' restriction available to the responsible person needs to be clarified. The Commission considers it appropriate that the person responsible for the metering installation be aware of any person who is provided with a password to the metering installation. The Commission considers that the term "*authorisation*" used in this regard would be appropriate. However, the Commission consider it inappropriate if the term "authorisation" permitted the responsible person to unduly or unreasonably withhold that authorisation, either for an extended period or to simply reject the request by the Market Participant. The Commission considers a reasonableness restriction should be placed on the responsible person in relation to the authorisation it is required to provide.

Having considered that a qualifier is required, the Commission considered it apparent that thought needed to be given as to whether a period in which the authorisation must be given was necessary to remove any opportunity to frustrate

the operation of the customer's right. The Commission considers that such a period is necessary and a period of one week would appear to be reasonable for the responsible person to receive a request from the FRMP and respond to that request. The Commission considers that a period of two weeks (or 10 business days) would appear to be reasonable for the FRMP to receive a request from its customer and respond to that request. The Commission considers that a provision to ensure that a customer's right can be exercised under normal operating conditions is good regulatory practice.

Metering Dynamics suggests that the requirement of a customer to "*request*" the read only password be deleted. The Commission considers that there appears to be no clear rationale for this deletion. By deleting this requirement, the trigger for supplying the password to the customer is removed, and hence is silent. In regard to customer rights and obligations, the Commission considers that it would not be good regulatory practice to leave this aspect silent and accordingly this suggestion has not been adopted.

Origin Energy comments that the term read only password be a defined term. Currently the Commission notes that the terms "read only" and "write only" are used in their common language forms in Chapter 7. The Commission also notes that Chapter 7 has relied on these common language definitions since the start of the NEM. NEMMCO has not proposed that these definitions be changed in their proposal. This suggestion is not supported.

Origin Energy suggests that where "read only passwords" are not available, direct access to a meter should be denied. In this regard, it suggests that the phrase "except where read only passwords are not available, direct access to a meter should be denied" be added to the provision. The Commission notes that the proposed Rule expressly provides for the situation where "read only" passwords are unavailable. In this regard, Origin Energy appears to have raised the issue that the proposed provision should not override the current provision, which is entirely appropriate. The Commission considers that an amendment to clarify that if there is no "read only" password for a metering installation, then no additional action is required to change the technology to enable a "read only" password to be provided.

Origin Energy suggests that any form of electronic access to a metering installation be excluded for all parties except NEMMCO, its agents and meter providers. The rationale for this exclusion is the inevitable evolution of the "hacker" who will seek to illegally modify meter programs to reduce measured consumption. The Commission notes that this comment is not supported by jurisdictional practice. The Commission also notes that NEMMCO explicitly states in its proposal that jurisdictional instruments make provision for end-use customer access to metering data. The Commission considers that it is not good regulatory practice to remove a right from a customer for data access purely on the grounds of possible future problems with technology design over which the customer has no control and accordingly this suggestion is not supported.

Transgrid comments that the provision should prescribe how the FRMP is to obtain the "read only password" in order to pass on to the customer. This suggestion is supported as it removes the risk that a FRMP or a Metering Provider, or both parties, will frustrate the intent of the provision. The Commission considers that this would

be in line with good regulatory practice and has accordingly adopted TransGrid's suggestion.

4.10.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission recognises the benefits of simplified compliance obligations and reduced compliance costs by virtue of clarified data entitlements. The Commission also considers that placing limits on entitlements to access metering installations is necessary to support strong security policies in relation to metering data in the NEM and thus maintain confidence in market data. The Commission considers that ensuring end-use customers' access to data is important and increased regulation may frustrate such access. The Commission therefore considers that for these reasons the Rule change proposal promotes the NEM objective and has adopted the policy intent of the proposal into its draft Rule.

4.10.5 Differences between the draft Rule and the proposed Rule

The Commission has made some minor drafting amendments to the clause relating to the rights of access to metering data to clarify the provisions.

In relation to the clause relating to security controls, the Commission has made amendments to ensure the arrangements in relation to access to a 'read-only' password are clear. This includes ensuring the reasonable person does not unreasonably withhold authorisation to a request by a FRMP for a password for its customer. It also requires the responsible person to act within 10 days of receiving the request. The clause has also been clarified in relation to the circumstances when no password is required.

4.11 Rule Change Proposal no. 11 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – on site meter testing

4.11.1 NEMMCO proposal

In its Rule change proposal NEMMCO states that the jurisdictional instruments provide, in relation to on-site meter testing, that the end-use customer is not required to pay for material energy flows recorded by the meter that occur as a result of a meter test, and specify when an alteration to stored energy data within a meter should occur. These requirements, according to NEMMCO, need to be harmonised and incorporated into the Rules.

NEMMCO states that the proposed Rule change will harmonise the existing jurisdictional requirements and merge them into Rules. NEMMCO states that the proposed wording reflects key aspects of industry best practice. NEMMCO states where the energy data stored in a meter is not altered, and if that data is identified as misrepresenting the billable energy, a change is made to the metering database in accordance with agreed industry procedures.

NEMMCO states that this Rule change proposal provides industry certainty and allows all Metering Providers to establish standard internal processes which will be compliant across first and second tier metering installations, and across jurisdictional boundaries. NEMMCO states that this Rule change will also provide certainty for retailers and network providers who will know that all data substitutions will take place within the premises of MDAs and MDPs and in accordance with an agreed industry procedure.

NEMMCO states that each of the above points contributes to market certainty, and builds confidence in market processes. NEMMCO states that standard processes based on industry best practice result in improved market efficiency. NEMMCO states that market confidence in energy data reduces the likelihood of market disputes, and encourages all parties to resolve anomalies when they are identified. Market confidence further contributes to market efficiency and meeting NEM objectives.

4.11.2 Views in submissions

No submissions raised issues of significant substance. SP AusNet raised an issue in relation to metering data

4.11.3 Commission's considerations

The Commission supports NEMMCO's policy position with respect to this Rule change proposal as it harmonises the current practice contained within jurisdictional instruments. The Commission considers that the new clauses proposed by NEMMCO provide clarity to a matter that the Rules were silent about. Proposed paragraph (b) reflects accepted industry practice and is consistent with the need to align the actual electricity consumed (which may be different to the reading shown by the meter) to the database records.

In relation to SP AusNet's comments that the term "metering installation" be replaced by a new term "metering installation database", the Commission notes that the term "metering installation database" is not defined in the Rules. Furthermore, the Commission notes that the term "metering installation database" is used by some parties to describe a particular database arrangement used by a Metering Provider (for types 5 to 7 metering installations). This term is therefore not relevant to this provision (which accommodates types 1 to 7) metering installations. The Commission therefore does not support SP AusNet's suggestion.

In regards to SP AusNet's comments that the word "load" be inserted to describe "energy volumes" the Commission notes that this clause applies to the full range of metering installations and can be used for generator connection points, load connection points and interconnector connection points. The Commission considers that the introduction of this word would therefore substantially change the intent of the proposed provision, and accordingly has not incorporated SP AusNet's suggestion into its draft Rule.

Other minor editorial amendments proposed by SP AusNet are supported and have been incorporated into the Rule.

4.11.4 Assessment of the proposal against the NEM Objective

The Commission accepts NEMMCO's proposition that the Rule change proposal contributes to industry certainty. For metering, the Rule change proposal allows the establishment of standard internal processes which would be compliant across first and second tier metering installations and across jurisdictional boundaries. For retailers and network providers the Rule change proposal provides certainty in terms of knowing that all data substitutions will take place in accordance with agreed procedures. The Commission also accepts that the Rule change proposal contributes to market confidence in energy data through the adoption of standard processes based on industry best practice.

The Commission is satisfied that the resulting market efficiencies result in a promotion of the NEM objective and have adopted the Rule proposal into its draft Rule.

4.11.5 Differences between the Draft Rule and the proposed Rule

The Commission has adopted the Rule change proposal subject to some minor drafting changes which in the Commission's view have not altered the intent of the proposal.

4.12 Rule Change Proposal no. 12 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – metering databases

4.12.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the current provision in the Rules (clause 7.9.1(f)) specifies requirements for the storage of historical metering data within the metering database for type 1-4 metering installations.

NEMMCO states that the historical metering data for Second tier type 1-4 metering installations is stored within the metering database and is specified within the Rules. NEMMCO states though, that for second tier type 5-7 metering installations, historical metering data is stored within the metering installation database and is specified in the Metrology Procedure. NEMMCo states that data storage requirements for first tier type 5-7 metering installations however exist within jurisdictional instruments.

NEMMCO states that the location of requirements for metering databases in different instruments, or at different locations within the same instrument creates opportunities for mis-reading of compliance requirements and a risk of participant error.

NEMMCO states that in developing a solution to this issue, a further matter identified was the inconsistent industry usage of the terms "metering data" and "energy data". NEMMCO states that industry discussion indicated ambiguity as to

the understanding of "historical data" as used in the current provision clause 7.9.1(f). NEMMCO states that its has addressed this ambiguity within this proposal.

NEMMCO states that this Rule change proposal harmonises first and second Tier requirements and brings the requirements together in the same area of the Rules for all meter types. NEMMCO states that differences between data storage requirements are more apparent, and industry users of the Rules have all the relevant obligations at a single location. NEMMCO propose to add a new subclause that parallels the requirements of the current clause 7.9.1 (f) for metering installations type 1-4, but reflects the differences in database names.

NEMMCO proposes to resolve the terminology matter and clarify the data to be stored within the respective databases, by:

- Replacing the reference to "historical data" in clause 7.9.1 by the defined term "metering data";
- Extending the definition of "metering data" to include "estimated energy data";
- Removing the reference to estimated energy data from the glossary term "energy data"; and
- Creating a new glossary term "substituted energy data".

NEMMCO states that the current provision (Rules clause 7.9.1(f)) establishes requirements for storing historical data within the metering database for type 1-4 metering installations. NEMMCO states that the proposed Rule change establishes a similar requirement for the data from type 5-7 metering installations, which promotes efficiency within service providers who deal with metering installations from both the type 1-4 and the type 5-7.

NEMMCO states that the standardisation of practices contributes to the efficiency of service providers and through competitive processes improves service and costs and it is of the view that these benefits are expected to flow to consumers through the competition between retailers.

NEMMCO states that bringing similar requirements for types 1-4 and types 5-7 metering installations into the same clause assists industry participants to understand the differences and similarities between the requirements for different metering types. NEMMCO states that this assists those industry participants in the management of compliance matters.

NEMMCO states that amending the definition of certain terms assists in the standardisation of processes across type 1-4 and types 5-7 metering installations. NEMMCO states that this confirms the current industry practice of using the definition of "energy data" to refer to data within a meter and "metering data" to refer to the data external to the meter. NEMMCO lists examples of "metering data" as Data obtained from a metering installation, the processed data, estimated energy data or substituted energy data). NEMMCO states that using the amended definitions clarifies the boundaries used to describe data usage within the industry, including the historical data required for storage.

NEMMCO believe that the proposed definitions for substituted energy data and estimated energy data are simplified as far as the Rules glossary are concerned, and rely on the procedures defined in the Metrology Procedure. NEMMCO states this greatly simplifies the understanding required when using the Rules in NEMMCO's view, and leaves the detailed procedure to a separate document.

4.12.2 Views in submissions

Two submissions provided comment on the Rule change proposal. Both Ergon Energy and Powercor commented that the term "metering installation database" that was italicised in the proposed Rule was not a defined term. Ergon Energy suggested a definition be added to the Rules for the term "metering installation database" while Citipower and Powercor suggested that the italics be removed.

In its supplementary submission NEMMCO states:

> "The "metering database" is contained within the NEMMCO systems (MSATS) and the systems of NEMMCO's service providers (MDA's) and is applied in reference to type 1-4 metering installations.
>
> The "metering installation database" is the database contained within the metering installation for types 5-7 and is the responsibility of the responsible person. Refer NER clause 7.3.1(b)(5) and Figure 2.3 (page 18) of the AEMC Rules determination of November 2006. Although the metering installation database is defined within the Metrology Procedure NEMMCO is not proposing to replicate this definition in the Rules.
>
> The presentation of metering installation database in this proposal (and proposed provision 7.12(ba)) should be consistent with the manner applied in the NER clause 7.3.1(b)(5)." [89]

4.12.3 Commission's considerations

The Commission supports NEMMCO's policy position in relation to this Rule change proposal.

In regards to Ergon Energy's and Powercor's comments in relation to the phrase "metering installation database" The Commission notes that this is not a defined term. The Commission also notes that use of the term "database" as a common term does not provide NEMMCO or interested persons with adequate certainty over the quality of the storage and data access arrangements. On the other hand, the phrase "metering database" can be used for all types of metering installations. The Commission notes that the Rules provide NEMMCO and industry with the scope to identify one or more unique databases which can be classified as a "metering

[89] NEMMCO supplementary submission, p.3.

database" and hence be bound by the quality and access arrangements already contained in Chapter 7 of the Rules.

The Commission notes that if the defined term "metering database" is substituted for the phrase "metering installation database" proposed clause 7.9.1(f) and (g) may be consolidated. The Commission has accordingly incorporated this amendment into its draft Rule. The Commission considers such an amendment to promote the continued harmonisation of NEM metrology requirements thereby improving the overall efficiency of metering.

The Commission supports NEMMCO's policy intent in relation to the amendments to the terms for "energy data", "metering data", "estimated energy data" and "substituted energy data" as they bring the definitions in the Rules in accordance with the definitions on the Metrology Procedure. The Commission considers that thisstandardises and simplifies these definitions.

4.12.4 Assessment of the proposal against the NEM Objective

The Commission is of the view that the Rule change proposal achieves a standardisation of practices which does contribute to the efficiency of service providers and ultimately improves service costs. The amendments made by the Commission to NEMMCO's proposal also aim to improve efficiency. The Commission also accepts that these benefits would be expected to flow to consumers through competition between retailers.

The Commission is of the view that bringing similar requirements for types 1-4 and types 5-7 metering installations into the same clause assists industry participants to understand the differences and similarities between the requirements for different metering types. The Commission considers that this would assist those industry participants in their management of the compliance matters. The Commission is also of the view that using the amended definitions clarifies the boundaries used to describe data usage within the industry, including the historical data required for storage.

The Commission considers that the proposed definitions for "substituted energy data" and "estimated energy data" are simplified and rely on the procedures defined within the Metrology Procedure. The Commission considers that this will improve the understanding of both the Rules, and the detailed procedure document.

4.12.5 Difference between the Draft Rule and the proposed Rule

In addition to the amendments to the proposed Rule that have been adopted for the draft Rule mentioned above, the following changes have been made:

- Amendments have been made to the definitions to substituted energy data, estimated energy data, energy data and metering data to ensure that the definitions are consistent with those contained in the Metrology Procedure. These amendments are consistent with the policy intent of NEMMCO's proposal; and

- Amendments have been made so that all metering installations must have their data stored in the metering database as opposed to the metering installation database.

4.13 Rule Change Proposal no. 13 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – metering installation malfunctions

4.13.1 NEMMCO proposal

NEMMCO states that the proposed Rule and the NEM Metrology Procedure currently require a 2 day timeframe for the responsible person to arrange for the rectification of a metering installation malfunction. NEMMCO states however that the timeframes stated within jurisdictional instruments may vary up to 10 days for the repair of a first tier metering installation.

NEMMCO propose that this Rule change proposal establish a harmonised approach to metering installation malfunctions across the NEM as follows:

- Rectification or notification to NEMMCO within 2 days is required for a connection point with a metering installation type 1,2 or 3; and

- Rectification or notification to NEMMCO within 10 days is required for a connection point with a metering installation type other than type 1, 2 or 3.

NEMMCO states that the proposed Rule change will provide a consistent approach across the NEM for metering installation malfunctions and clarifies the response time obligations. NEMMCO states that other advantages of the Rule change proposal are that it aids compliance and market confidence, and results in more efficient market processes.

NEMMCO states that the proposed approach takes into account the energy volume at the connection point and establishes shorter response times for larger energy volumes.

NEMMCO states that the harmonisation of diverse jurisdictional requirements will lead to more efficient and consistent business processes across the NEM that will ultimately flow through to achievable end-use customer benefits. NEMMCO states that a proposed amendment to the clause heading better reflects the content of the clause.

4.13.2 Views in submissions

No submissions explicitly commented on this Rule change proposal.

4.13.3 Analysis of the policy position of the Rule change proposal

The Commission considers the changes outlined in this Rule change proposal to be valid. The Commission notes that these changes were foreshadowed in the 2006

changes to Chapter 7 and appear to be consistent with the views expressed at that time. The Commission also considers the changes to be reasonable and consistent with industry practice.

4.13.4 Assessment of the proposal against the NEM Objective

The Commission accepts that the Rule change proposal, through the harmonisation of jurisdictional instruments will provide a consistent approach across the NEM for metering installation malfunctions. The Commission also accepts that the Rule change proposal clarifies the response time obligations as well as aid in simplifying compliance for Market Participants. The Commission considers that this will result in increased market confidence and more efficient market processes. For these reasons the Commission considers that the Rule change proposal promotes the NEM objective and has incorporated it into its draft Rule.

4.13.5 Differences between the Draft Rule and the proposed Rule

The draft Rule contains some drafting differences from the proposed Rule to improve the clarity of the relevant provisions. The policy intent of the proposed Rule has, however, been preserved.

4.14 Rule Change Proposal no. 14 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – security seals

4.14.1 NEMMCO proposal

NEMMCO in its Rule change proposal, states that jurisdictional instruments currently contain diverse approaches to the sealing of metering equipment and situations where a security seal has been broken.

NEMMCO states that the current NEM approach to this matter is relatively light handed with current jurisdictional requirements used to address the deficiency. NEMMCO proposes stronger, harmonised NEM obligations to replace the diverse jurisdictional requirements.

NEMMCO states that this Rule change proposal proposes the adoption of an industry "best practice" approach for the sealing of metering equipment in the NEM, which has been developed through the harmonisation of current jurisdictional requirements.

NEMMCO states that the proposed arrangements provide a comprehensive framework for the application of security seals to metering installations, replacement of damaged seals, and cost recovery for the replacement of security seals. NEMMCO states that the arrangements also provide clarity in relation to participant obligations for security seals across the NEM.

NEMMCO states that a consistent NEM-wide approach to the application and replacement of security seals assists participants to meet their compliance obligations irrespective of the jurisdictions in which the metering installation exists.

NEMMCO states that the certainty created allows participants to establish common work practices across first and second tier metering installations, and facilitates transfer of consumer loads between first tier and second tier without the need for metering installation changes. NEMMCO states that this contributes to NEM efficiency and the NEM objective.

4.14.2 Views in submissions

Ergon Energy states:

> "It is suggested that "discovers" in clause 7.11.2(ad) may lead to ambiguity and that this should be replaced with "becomes aware".
>
> As currently drafted, clause 7.11.2(ad) would require the meter reader to replace a broken seal when visiting a premises for the purposes of a meter reading – i.e. "first occasion the metering equipment is visited to take a reading…". This is inappropriate as, for example, the MPB may be required to investigate and remove the cover. It is suggested that the timeframe for replacing the broken seal be simply left as "within 100 days of receiving notification that a seal has been broken.
>
> The intent of clause 7.11.2(af) should be clarified. Ergon Energy has assumed that this is intended to provide that a meter test is required prior to the reinstatement of the seals or the replacement of the meter equipment, in circumstances where the seal is broken (i.e. main cover seals that control the meter accuracy calibration) and it is suspected that the meter may no longer comply with accuracy requirements.
>
> The reference to "relevant minimum standard" should be amended to "relevant standard"." [90]

Origin Energy states:

> "[In relation to clause 7.11.2(ac)] it is unlikely that the FRMP will discover that a seal has been broken or interfered with." [91]

Citipower and Powercor state:

> "[In relation to paragraph (ac)] the term "business day"' is defined and should be italicised.

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90 Ergon submission, p.7.

91 Origin submission, p.3.

[In relation to paragraph (ae)] the reference to relevant Registered Participant in subclause 1 is ambiguous because the term Registered Participant covers both the Market Participant and the DNSP. The reference to "Registered Participant" in subclause (1) should be changed to "Market Participant"."[92]

SP AusNet states:

"[In relation to paragraph (ac)] the most likely party to detect a broken seal is a Metering Provider during a routine or special read, and the industry practice would be for the Metering Provider to record that detail, assess for signs of tampering, and repair the seal. This existing practice provides an effective and efficient arrangement whilst maintaining a high level of control and scrutiny of possible meter tamper situations. The need to report this to the Responsible Person where tamper is not suspected would appear to add complication and costs without improving the security of installations. The proposed wording does not reflect this practical process.

[In relation to paragraph (ad)] the obligation on the Responsible Person should be to ensure actions generally not to carry out the actions." [93]

TransGrid states:

"The draft new clause 7.11.2(ae) allocates the responsibility for meeting the costs for replacing broken seals to the Registered Participant or the responsible person only. There are situations where the Metering Provider may have broken seals for maintenance or other purposes and failed to replace the seals following completion of the work. In some cases, the Metering Provider may have been engaged by the Financially Responsible Market Participant and may not therefore have a commercial relationship with the Responsible Person. Hence, clause 7.11.2(ae) should include another option inserted before part (3) as follows:

"(2a) by the Metering Provider if the seal was broken by the Metering Provider. " [94]

United Energy and Alinta state:

"Clause 7.11.2 (ae) refers to the cost of replacing a seal to be borne by the Registered Participant if the seal was broken by its customer. The reference to Registered Participant covers both a Market Participant and a DNSP. We

92 Citipower and Powercor submission, p.10.

93 SP AusNet submission, pp.14-15.

94 Transgrid submission, p.2.

suggest that the clause be amended to refer to a Market Participant who has the relationship with the end use customer." [95]

4.14.3 Commission's consideration

The Commission supports NEMMCO's policy objectives in relation to this Rule change proposal. These provisions cover the security of the metering installation and are appropriate. The Commission, however, considers the proposed provisions would be better located in clause 7.8.1 which provides for the security of metering equipment.

In relation to Ergon Energy's comments relating to the resealing of meters, the Commission considers that at the time this provision is triggered, the responsible person has an opportunity to instruct its Metering Provider to investigate the circumstance surrounding the broken seal. The status of the meter seal does not prevent the attendance of the Metering Provider (MPB) at the meter site, nor investigation of the meter condition. The Commission considers that the early sealing of the meter should not be prevented by a requirement to investigate the status of the meter. The Commission considers that it is up to the responsible person to manage the meter reading and meter investigation resources such that the meter should be resealed as soon as possible with the action recorded and reported for later analysis. Accordingly, the meter reader action to reseal the meter and the Metering Provider action to investigate the situation can be independent events. Alternatively they could be the same event if the Metering Provider was the first person to "discover" the broken seal.

The Commission considers that NEMMCO's proposed provisions act to reduce the risk of any interference with the meter and to re-establish control of this device at the earliest possible time, which is considered best practice. Accordingly, the Commission has not adopted this suggestion.

In relation to Ergon Energy's comments regarding clarification of the intent of proposed clause 7.11.2(af) Ergon Energy states that

> "it is assumed that this provision is intended to require a meter test prior to the re-instatement of the seals or the replacement of the meter equipment, in circumstances where the seal is broken (ie. Main cover seals that control the meter accuracy calibration) and it is suspected that the meter may no longer comply with accuracy requirements."

The Commission is seeking comments from interested stakeholders as to whether it is necessary to clarify this clause and seeks suggestions on how such a clarification would be of assistance.

In relation to Ergon Energy's comments that "relevant minimum standard" be replaced by "relevant standard" neither Ergon nor NEMMCO have provided detail as to why they have chosen their respective terms.

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95 United Energy and Alinta submission p.3.

Powercor, SP AusNet and United Energy comment that in relation to proposed paragraph (ae) the term "registered participant" be changed to read "market participant". Registered Participant refers to both a Market Participant and a Network Service Provider. Whilst a Network Service Provider can be a Transmission Network Service Provider or a DNSP, the clause appears to be written so as to establish a relationship between the customer and the FRMP. Accordingly to remove any ambiguity the term "registered participant" could be replaced by the term "Financially Responsible Market Participant". The Commission has made this amendment.

In relation to paragraph (ac), the suggestion is for the Metering Provider to be given a specific obligation to replace the seal in situations where the "discovery" occurs without the knowledge of the responsible person. SP AusNet explains that the most likely person to "discover" a broken seal is a Metering Provider during a routine or special read. This reference to Metering Provider is similar to the reference to meter reader used by Ergon. In both instances, the meter reading is done under the control of the responsible person. The question arises as to whether good industry practice should be allowed to prevail in the restoration of the meter seal, or whether this practice should be regulated.

Given that the Metering Provider is accredited by NEMMCO and under the direct contractual control of the responsible person, it appears that the circumstances exist where adequate quality control of these actions are available without the need for further regulation. This view is reinforced by the fact that the proposed provision is stated to represent best practice and as such does not recommend that additional obligations be placed on the Metering Provider within the Rules. No other submission sought to treat the Metering Provider in this way. Accordingly the suggestion is not supported.

SP AusNet also suggest a change in paragraph (ac) that is consequential. The intent of this change is supported. The provision as it stands mandates that the responsible person must replace a broken seal on the first occasion the metering equipment is visited for a meter reading. However, in light of the SP AusNet suggestion, this requirement now appears to be too narrow. The Commission considers that it would be better if the provision accommodated the situation where a meter seal had been replaced by an appropriate person, and this proposed provision acts as a last resort, which is the intent of the SP AusNet suggestion.

SP AusNet suggest that the last part of paragraph (af) be varied to provide the responsible person with reasonable flexibility in who performs the meter test. In practice, it must be the Metering Provider who conducts the test, not the responsible person. However the responsible person has the obligation to ensure that the test is undertaken. In making this change, the responsible person moves from being the party to conduct the test to the party who controls the requirement that the test must be conducted. This suggestion better reflects the intention of the provision and the responsibilities placed on the Metering Provider by clause 7.4.1 and hence current practice. Accordingly this suggestion is supported.

TransGrid comment that in relation to paragraph (ae) the suggestion is made that an additional situation could arise where a Metering Provider may be the cause of the broken seal but the responsible person has no commercial relationship with this

party. In this case subparagraph (3) is not adequate. It is agreed that this additional situation could arise and amendments should be made to ensure that it is provided for within the clause. The Commission has included the Metering Provider in the category of persons required to bear the costs of replacing in the seal.

United Energy commented that in relation to paragraph (ae), that subparagraph (1) be changed from "Registered participant" and the Commission considers this to be an appropriate amendment.

4.14.4 Assessment of the proposal against the NEM Objective

The Commission considers that the Rule proposal provides added clarity in relation to participant obligations for security seals in the NEM. The Commission considers that a consistent approach through the NEM jurisdictions in relation to the application and replacement of security seals assists market participants in meeting their compliance obligations. Furthermore the Commission is of the view that this Rule change proposal promotes competition by allowing for an easier transition for industry participants to operate in other jurisdictions.

For these reasons the Commission considers that the Rule change proposal promotes the NEM objective and has incorporated the proposal into its Draft Rule.

4.14.5 Differences between the draft Rule and the Proposed Rule

The Commission has largely adopted NEMMCO's proposed amendments subject to the modifications discussed above. The Commission has amended the clause relating to the requirement to replace a broken seal so that the responsible person is only required to replace the seal if the person who notified the responsible person has not replaced the seal.

The Commission has also included a requirement that if the Metering Provider broke the seal, the costs of replacing the seal are to be borne by the Metering Provider.

4.15 Rule Change Proposal no. 15 - Consequential change to harmonise jurisdictional metrology requirements with existing NEM requirements – type 7 metering installations

4.15.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the Rules require that a type 7 metering installation only be allowed for a "market load". NEMMCO states that the Rules and jurisdictional instruments do not currently clarify the criteria to be used when determining whether an un-metered supply may be categorised as a type 7 metering installation, but rather use examples.

NEMMCO proposes in this Rule change proposal:

- That the first reference to "market loads" in item 5 of Schedule S7.2.3 be made a reference to "loads at connection points" in order to permit type 7 metering installations to be applied to first tier unmetered supplies; and

- That the coverage and the listed examples be replaced with principles to be applied when determining if a load qualifies as a type 7 metering installation.

NEMMCO proposes to incorporate in the Rules the principles applied in the Metrology Procedure and jurisdictional metering instrument (for the first tier) so that the Rule provides a framework for determining connection points that may be unmetered.

NEMMCO is of the view that the Rule change proposal clarifies NEMMCO's role in determining which connection points qualify as type 7 metering installations in the NEM and address the criteria under which a connection point can be type 7.

NEMMCO states that if this Rule change proposal is adopted, the result would be that the determination of type 7 metering installations will be consistent for first and second tier loads. NEMMCO states that this would provide greater clarity to the industry and metering service providers, and contribute to market efficiency. NEMMCO states that the Rule change proposal would not affect existing jurisdictional arrangements.

4.15.2 Views in submissions

Ergon Energy states:

> "The removal of the reference to "market load" in Item 5 of Schedule 7.2.3 appears to expand its application to all first tier connection points, rather than those that have been declared by the jurisdiction as falling within the market arrangements.
>
> This expanded application would appear to be inconsistent with the legal advice that Ergon Energy understands has been obtained by NEMMCO regarding the application of Chapter 7 to non-market (i.e. franchise) connection points. This is of particular relevance in Queensland where the Electricity Act 1994 provides for the progressive application of market arrangements to unmetered loads.
>
> Ergon Energy therefore requests confirmation that the proposed drafting does not impact existing jurisdictional arrangements for franchise loads." [96]

Origin Energy states:

> "As the Local Retailer (LR) carries the financial risk associated with the inaccuracy of unmetered supplies, it is suggested that the LR ratify any

[96] Ergon submission, p.8.

NEMMCO decision that determines a particular supply does not require metering.

As a general comment, advances in metering technologies can now allow devices to be metered where they were once considered unable to be metered." [97]

SP AusNet has provided marked up text with each of its comments, and specifically states:

"We understand and support that the role of NEMMCO is to determine where a "category" of metering installation in general meets the conditions to be considered an unmetered load and so classify that category as type 7.

However we understand that NEMMCO will not ascertain whether every installation within the category meets the conditions. Hence although because of typical magnitude and/or connection arrangements NEMMCO might classify a category of installation as type 7, the Responsible Person (ie the LNSP) may determine that a specific installation in that category does not meet the conditions. Eg the load may be larger than typical and/or it may be located such that providing a meter is lower than average cost.

The conditions for classification by NEMMCO should not necessarily be both the magnitude of the load; and the connection arrangements. An installation's connection arrangements might be such that the installation of a meter is easy, however the load is such that annual consumption is so small that the meter and reading costs still cannot be justified.

There are a number of aspects of this "process" for UMS which NEMMCO and the industry agree are less than satisfactorily detailed and defined. There is likely to be a NEMMCO/industry effort to clarify and formalise this process. This may also lead to a need for further Rules changes in this area. Two examples of aspects which might require Rules documentation are:

- The need for the decision of NEMMCO with respect to classifying an installation as type 7 (or not classify an installation as type 7) or to remove an existing classification under S7.3.2.1 Item 5 (d) [new numbering] to be subject to obligatory consultation

- The relationship of this NEMMCO process to that currently required in the Metrology Procedure for the Minister to declare an unmetered supply as contestable (ie a market load)." [98]

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97 Origin submission, p.4.

98 SP AusNet submission, p17-19

United Energy and Alinta state:

> "What is unclear from the wording as proposed is whether NEMMCO will be required to vet and approve individual new/variations of type 7 installations or are they going to set the principals as set out in (a) and (b) of Item 5 of Schedule 7.2.3 and leave it to the market to manage the installations within those principles.
>
> The businesses understand that NEMMCO is currently in the process of making a submission to the MRG on these matters." [99]

NEMMCO states in its supplementary submission:

> "The purpose of the proposed Rules changes in relation to type 7 metering is to clarify NEMMCO's role in determining type 7 metering installations and which connection points qualify as type 7.
>
> Sub clauses (a) and (b) of the proposal set out the principles for those connection points which may be classified as type 7.
>
> In particular clause (b) outlines connection points in which it would not be cost effective to meter due to the nature of the installation. This situation arises when the volume of energy flowing through the connection point is small (for example, snow gauges or traffic counters) compared to the overall cost associated with installing and maintaining a metering installation.
>
> Difficult connection arrangements can exist due to actual physical or geographical difficulties in connecting a meter for reasons such as safety, prevention of vandalism or impracticalities such as installing and reading a meter at every street light." [100]

4.15.3 Commission's considerations

The Commission supports the policy intent of the Rule change proposal however there is one matter of detail arising from analysis of the Rule change proposal that the Commission believes requires further consideration.

The Rule proposal provides a statement of the principles to be used in determining whether a load can be classified as type 7. The Commission also considers that the proposed change also replaces the examples from which the principle was previously implied. The Commission considers that the proposed change is evidence of an evolutionary step taken towards good regulatory practice on metering in that examples lead to principles that then provide light handed regulation.

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[99] United Energy and Alinta submission, p.3.

[100] NEMMCO Supplementary Submission, pp.3-4.

The changes raise a policy issue. The type 7 metering installation is justified on two characteristics, firstly, the difficulty in installing meters into existing infrastructure, such as certain types of lighting, public facilities and telephone services; and secondly, the limited revenue from the load because it is miniscule. Paragraph (a) of the proposed provision adequately deals with the first characteristic above. Paragraph (b) of the proposed provision is potentially different, in that it allows the test to be based on the cost effectiveness created by the load rather than on the 'miniscule' characteristic of the load.

A miniscule load is likely to trigger a cost effective decision in favour of a type 7 metering installation. However a more substantive load could also trigger a decision in favour of a type 7 metering installation. As it is stated, the magnitude of the load must be taken into account, but that magnitude is not limited in any way. It would be possible to justify a cost effective outcome based on loads that are larger than miniscule. The Commission has clarified this issue in the draft Rule to refer to "small" loads.

Accordingly the proposed provision opens the door for increased volumes of loads to be classified for type 7 metering installations. The Commission considers that the policy intent of the provision is likely to be to eventually eliminate all type 7 metering installations as technology progresses to the point where all loads can be metered.

Ergon Energy is concerned about a broader cover of the proposed provision to loads that have not yet been granted contestable status by a jurisdiction. The current method of separating contestable loads from non-contestable loads is to refer to all contestable loads (which are those that are captured by the Chapter 7 provisions) as "market loads", which is a defined term. By inference all other loads (being "non-market loads") are covered by jurisdictional arrangements, such as those that exist in Queensland for a transitionary period (the next year or so). The Commission considers that it appears applicable to incorporate Ergon Energy's concern into the proposed provision.

Origin Energy's suggestion is to have NEMMCO's determination of a type 7 metering installation condition ratified by the local retailer. It is understood that the suggestion allows the Local Retailer to minimise the use of the type 7 metering installations. That is, the Local Retailer would be able to manage its settlement risk associated with the calculation of a non-metered load by either overriding NEMMCO's decision to not install a meter or agreeing with NEMMCO if NEMMCO's decision is to install a meter. The proposed change would act to limit the number of type 7 metering installations, and in this way is consistent with the last paragraph. The current provision did not have to deal with this problem since it is not an issue for second tier loads. Whilst the suggestion appears to be reasonable, and in a regulatory sense acts to minimise the number of type 7 metering installations, it raises the question as to whether other interested parties consider that the change has merit.

SP AusNets suggestion to describe metering installations as "categories" does not appear to have obvious merit nor improve the reading of the provision. In particular the suggestion is based on improving the determination required to be made by NEMMCO. United Energy has suggested that the term "it has been determined by

NEMMCO" be deleted. The Commission considers that if this suggestion is adopted SP AusNet's suggestion then becomes superfluous.

In relation to United Energy's comments, the Commission notes that the current provision permits a Market Participant to determine if a metering installation was a type 7 by reference to the examples. NEMMCO is only required to determine if a condition is consistent with the list of examples should a doubt arise. The current provision had been accepted by the market and has had no operational problems. The proposed provision removes the examples and replaces them with principles. United Energy's concerns are raised in regard to the application of these principles. In particular, why would NEMMCO's role in determining the conditions be retained if the principles are adequate?

The final issue raised by SP AusNet is in relation to paragraph (b), the suggestion is to permit a choice between the conditions by joining them with an "or". The example given is the situation where a meter is easy to install but the load is so small that the cost of the meter and its regular reading cannot be justified. To assist this example, it is assumed that the load has a regular pattern and can be calculated with reasonable accuracy. When tested by the proposed provision, this example would meet the principle of paragraph (a); and meet the principle of paragraph (b) in that the cost of the meter and the reading is more than the revenue generated from the load. In this regard subparagraphs (i) and (ii) can both be taken into account when considering the "cost effectiveness" of installing a meter. That is, the proposed provision does not offer any restriction to the determination available under this provision. Accordingly this suggestion is not supported.

4.15.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission accepts that clarifying and strengthening the criteria for determining type 7 metering installations provides guidance to market participants as to the classification of unmetered loads. The Commission also accepts that the limitations included in the draft Rule are in accordance with general policy direction of limiting unmetered loads. The Commission considers that for both of these reasons that the proposal promotes the NEM objective.

4.15.5 Differences between the Draft Rule and the Proposed Rule

The Commission has largely accepted NEMMCO's proposed amendments on this matter which are contained in clause S7.2.3. The Commission has made some modifications as noted above. The Commission has enhanced the criteria that must be taken into account in determining the cost effectiveness of metering the connection point. The Commission's enhancements include clarifying that the "small" magnitude of the load should be taken into account as well as the geographical and physical location of the connection point.

As noted above, the Commission has also clarified that the load must be a market load.

4.16 Rule Change Proposal no. 16 – remove duplicate requirements – data validation, substitution and estimation

4.16.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that for type 1-4 metering installations, responsibility for data validation, substitution and estimation falls to NEMMCO. NEMMCO states that data validation, substitution and estimation is carried out by the Metering Data Agent in accordance with a metering data validation and substitution procedure established by NEMMCO under current provisions in the Rules (clause 7.9.4.)

NEMMCO states for type 5-7 metering installations, responsibility for this activity falls to the responsible person, and is carried out by the Metering Data Provider in accordance with the NEM Metrology Procedure. NEMMCO states that although the processes are identical for type 4 and type 5 metering installations, the obligations are located in different documents.

NEMMCO states that the split places an obligation on NEMMCO to maintain the identical data validation, substitution and estimation procedures in two places, these being;

- The procedures defined under current provisions in the Rules (Rule clause 7.9.4); and
- The NEM Metrology Procedure.

NEMMCO states that there are risks to the market associated with not keeping these documents aligned.

NEMMCO states that clause 7.9.4(a) of the Rules and Schedule S7.5.2(d) refer to "data validation, substitution and estimation". It states that in addressing the substantive issue there is an opportunity to establish a consistent nomenclature and a NEM wide requirement.

NEMMCO proposes in this Rule change proposal to bring the obligations for data validation, substitution and estimation together in adjacent sub-clauses within Rules clause 7.9.4. NEMMCO states that under this Rule change proposal the obligations on NEMMCO (for type 1-4 metering installations and the responsible person (for type 5-7 metering installations) would remain unchanged.

NEMMCO states that the procedures for data validation, substitution and estimation may be readily combined into a single document, and this is the most efficient process for ready access by service providers and Market Participants. NEMMCO propose to bring all the data validation, substitution and estimation processes and algorithms together within a common area of the NEM Metrology Procedure.

NEMMCO states that to facilitate this change, this Rule change proposes the amendment of clause 7.9.4 to reference the NEM Metrology Procedure rather than '…procedures developed by NEMMCO…' which would allow the existing separate NEMMCO procedure under clause 7.9.4 to be withdrawn.

NEMMCO proposes to amend the heading for clause 7.9.4 to "Data validation, substitution and estimation" along with the text within the Rule, and the reference at Schedule S7.5.2(d). These changes are to aid clarity by adopting a consistent harmonised approach and nomenclature.

NEMMCO states that discussions with industry groups and NEMMCO operational personnel indicate that a single reference document for service providers (whether MDAs or MDPs) is the most efficient arrangement. NEMMCO states that this would be advantageous to both the parties providing the service and the parties with responsibility for the service. NEMMCO states that this reflects the commonality of processes for data validation, substitution and estimation across the different metering installation types.

NEMMCO states that for the period that two documents exist, NEMMCO must ensure the common elements remain aligned, and therefore consultation on amendments to the two procedures must be conducted in parallel, with a common final determination and effective date. In addition NEMMCO points out that nationally, participants are required to duplicate submissions to consultations, and NEMMCO is required to provide duplicate responses to the submissions.

NEMMCO is of the view that the proposed Rule change will provide a single efficient process for the management of data validation, substitution and estimation processes. NEMMCO states that these more efficient processes will provide benefits to service providers, responsible persons, retailers and reduce NEMMCO's costs. NEMMCO states that these costs savings are all capable of translation into benefits to consumers.

NEMMCO states that the rationalisation of these two procedures into one is in conformity with recommendation 3.2(e) of the JJR report, to reduce duplications in procedures and obligations.

4.16.2 Views in submissions

AGL states:

> "We note …that the use of "estimation" with respect to type 1-4 metering in proposed Rule 7.9.4 can be misleading and suggest that it be removed." [101]

Ergon states:

> "Ergon Energy queries whether the reference to "Metrology Procedure" in clause 7.9.4(ab) should be amended to "Metrology Procedures" – i.e. as defined in Chapter 10." [102]

Origin states:

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[101] AGL submission, p.1.

[102] Ergon submission, p.8.

"[With reference to clause 7.9.4(a)] it is understood that it is the accredited agents of NEMMCO that are responsible for validation and substitution of metering data.

[With reference to clause 7.9.4(ab)] it is understood that it is the MDP as accredited by NEMMCO, who is responsible for the validation, substitution and estimation of metering data. Note also that Metrology Procedures need to be italicised in this clause." [103]

Citipower and Powercor state:

"[In reference to clause 7.9.4(ab)] the words "Metrology Procedure" refers to a defined term and should be italicised, without capital letters.

The reference to clause 7.11 in clause 7.14.1(c)(7) should be 7.11.1. As drafted the reference would pick up 7.11.2 which is not relevant." [104]

SP AusNet states:

"In reference to clause 7.9.4(ab), italics and caps not correctly used.

In reference to clause 7.14.1(7), incorrect reference." [105]

United Energy and Alinta state:

"Clause 7.14.1(c)(7)(ii) requires the Metrology Procedure to include data estimation for the purposes of Rule 7.11. We suggest that the clause be redrafted to refer to Clause 7.11.1 the metering data section of Clause 7.11." [106]

4.16.3 Commission's considerations

The Commission supports the policy intent of the Rule change subject to minor drafting amendments is supported. The Commission considers that in relation to proposed clause 7.9.4(ab), the assignment of responsibility to the responsible person and away from NEMMCO is consistent with current practice. Currently where the responsible person undertakes all necessary validation, substitution, and estimation for types 5, 6 and 7 metering installations due to their "manual nature".

ActewAGL's comment relates to the change in the heading of clause 7.9.4 where "estimation" has been added. The comment also has a bearing on paragraph (a) where an estimation action is not appropriate. If the heading was left unaltered then

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[103] Origin submission, p.3.

[104] Citipower and Powercor submission, pp.9-10.

[105] SP AusNet submission pp.14,16.

[106] United Energy and Alinta submission, p.4.

an opposite comment could be raised because paragraph (ab) requires "estimation" to be performed and this was not recognised in the heading. Accordingly the suggestion is not supported.

Origin suggests that in relation to clause 7.9.4(a) that the accredited agents of NEMMCO are responsible for validation and substitution of metering data. Clause 7.3.5(c) permits NEMMCO to use agents, but the responsibility is always with NEMMCO, as correctly stated in the current provision of clause 7.9.4(a). Accordingly the suggestion is not supported. Origin suggests that in relation to proposed clause 7.9.4(ab) that the MDP is responsible for validation, substitution and estimation of metering data. The responsible person is responsible for validation, substitution and estimation of metering data, since it is this person who must engage the Metering Provider in accordance with clauses 7.2.5(a) and (b). Accordingly the suggestion is not supported.

Powercor, United Energy and SP AusNet in relation to clause 7.14.1(c)(7)(ii), suggest that the cross-reference to clause 7.11 is too broad and should be pointed to clause 7.11.1. It is agreed that clause 7.11.2 is not a relevant reference for clause 7.14.1(c)(7), as the subject of this latter clause is settlement ready data (a progression from metering data), whereas clause 7.11.2 refers to malfunctions of metering installations. The Commission considers that there is merit in narrowing the cross reference to clause 7.11.1 as it improves the reading of the provision. Accordingly this suggestion is supported.

4.16.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that consolidating the processes for data validation, substitution and estimation processes reduces the risk of non alignment of the common elements of these procedures between the types of meters. The Commission also considers that the Rule change proposal provides a single reference point for service providers which serves to increase efficiencies. A further advantage of the proposal is that duplication in regards to processes of amending the documents (such as duplicate submissions by service providers and Market Participants and parallel consultation by NEMMCO) is removed. The Commission considers it advantageous to have all types of metering installations together as it encourages the use of a single procedures document which promotes consistency and efficiency. In this regard the Commission considers that the Rule change proposal does promote the NEM objective.

4.16.5 Differences between the Draft Rule and the Proposed Rule

The Commission has adopted NEMMCO's proposed changes with very little drafting changes.

4.17 Rule Change Proposal no. 17 – Address NEM efficiencies – incorporate Queensland's minimalist transition approach to FRC in the Rules

4.17.1 NEMMCO proposal

NEMMCO states that the proposed harmonisation of first tier metrology requirements into the Rules will result in the blanket application of NEM obligations to all metering installations in Queensland. NEMMCO states that some of these obligations are inconsistent with Queensland Government policy as outlined in the Queensland Electricity Industry Code[107].

NEMMCO states that the introduction to FRC by Queensland in July 2007 is predicated on transitional arrangements outlined in the Queensland Electricity Industry Code[108]. NEMMCO states that this Rule change is to incorporate the Queensland Minimalist Transition Approach within the transitional provisions of Chapter 11 of the Rules.

For the introduction of FRC in Queensland in July 2007, the government has developed a number of transitional National Metering Identifier (NMI) information requirements. This is known as the Minimalist Transition Approach and is outlined in the Queensland Electricity Industry Code. NEMMCO states that this Rule change addresses these transitional arrangements as applicable to Chapter 7.

This particular NEMMCO proposal aims to facilitate the introduction of FRC in Queensland and the inclusion of Queensland's first tier metrology requirements into the Rules and NEM Metrology Procedure.

NEMMCO states that the proposal allows the Minimalist Transition Approach being adopted by Queensland for FRC (as outlined in the Queensland Electricity Industry Code[109]) to remain in place and introduce NEM wide first tier metering installation requirements.

4.17.2 Views in submissions

Ergon Energy states:

> "It is queried however whether a conflict exists between the transitional provisions in chapter 11 and the requirement for the registration of metering installations under clause 7.1.4(a)(1), which may necessitate clause 7.1.4(a)(1)

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[107] The Queensland Electricity Industry Code is made under the Queensland Electricity Act (1994). The third edition of the Queensland Electricity Industry Code came into effect on 1 July 2007 to include the introduction of full retail contestability.

[108] ibid

[109] ibid

being included in the list of clauses that do not apply under the Minimalist Transitioning Approach." [110]

4.17.3 Commission's considerations

The Commission supports the policy position adopted by NEMMCO subject to some minor drafting amendments.

Ergon Energy's comments in relation to clause 7.1.4(a)(1) are that this clause may need to be included as an exempted clause. This clause is prefaced by the intention to participate in the market. The defined term market means: "Any of the market or exchanges described in the Rules for so long as the market or exchange is conducted by NEMMCO". It would appear that the exemption is aimed at enabling a person (with a NMI classification of SMALL) to consume a load at a connection point without operating in the market. On this basis, the current provision of clause 7.1.4(a) would not apply. Accordingly there is no requirement to include this clause in the exemption.

The proposed provision gives exemptions to the following clauses:

1. Clause 7.2.3.(h)(2);

2. Clause 7.2.5(b)(2);

3. Clause 7.2.5(d)(6); and

4. Clause 7.3.1(f);

where the connection point has a NMI classification of SMALL and LNSP has not received a valid request from a Market Customer for the NMI to be registered with NEMMCO.

Clause 7.2.3(h)(2) requires the LNSP to provide NEMMCO with a NMI for the metering installation within 10 business days.

Clause 7.2.5(b)(2) requires the responsible person to provide NEMMCO with the relevant details of the metering installation as specified in Schedule 7.5 within 10 business days.

Clause 7.2.5(d)(6) requires the responsible person to provide NEMMCO (when requested) the information specified in Schedule 7.5 for a new or modified metering installation.

Clause 7.3.1(f) requires the responsible person to register the NMI with NEMMCO in accordance with procedures from time to time specified by NEMMCO.

[110] Ergon submission, p.8.

4.17.4 Assessment of the proposal against the NEM Objective and the Commission's decision

The Commission considers that this Rule change proposal is required for the facilitation of FRC in Queensland in accordance with the Queensland Government's adoption of the Minimalist Transition Approach, while simultaneously introducing NEM wide first tier metering installation requirements. The Commission therefore considers that the provision sufficiently promotes the NEM objective and has incorporated the policy intent of the proposal into its draft Rule.

4.17.5 Differences between the Draft Rule and the Proposed Rule

The Commission has incorporated NEMMCO's proposed amendments for this Rule change proposal into the draft Rule with no substantive change. The clauses referred to in the proposed amendment, namely clauses 7.2.3(i)(2), 7.2.5(b)(2), 7.2.5(d)(6) and 7.3.1(f), are not affected by this draft Rule.

4.18 Rule Change Proposal no. 18 – Address NEM Efficiencies – Use of standard terms and conditions

4.18.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that to facilitate timely retail transfers, the LNSP generally publishes a set of terms and conditions under which the LNSP is willing to act as responsible person for type 5, 6 or 7 metering installations.

NEMMCO states that in the current provisions of the Rules, Chapter 7, provides that a Market Participant must request an offer from the LNSP to act as the responsible person where a type 5, 6 or 7 metering installation is, or is to be installed.

NEMMCO states that industry recognises that the timely transfer of retailer connection points at lower energy volumes is dependent upon an efficient and relatively automated process. NEMMCO states that the recognition of standard terms and conditions in the Rules as an alternative to the formal requirement for the retailer to request an offer from the LNSP has the potential to facilitate further efficiencies in the retail transfer process.

NEMMCO states that the proposed Rule change is to recognise in Chapter 7 the use of LNSP terms and conditions in responsible person arrangements for type 5-7 metering installations, to provide greater clarity to the industry and to contribute to market efficiency.

NEMMCO states that the use of LNSP terms and conditions supports the efficient transfer of consumer connection points between retailers in the NEM.

NEMMCO proposes in this Rule change proposal to recognise practices developed in the market to facilitate efficient retail transfers for FRC. It is of the view that reflecting this practice within the Rules will provide greater certainty to market practices and service providers and therefore build confidence in market processes.

NEMMCO assume that reduced costs of this process efficiency would eventually flow on to the end-use customer.

4.18.2 Views in submissions

Origin states in regards to clause, 7.2.3(d):

> "this clause as written, would allow the LNSP to potentially charge exorbitant and unrealistic fees for the management of the RP role
>
> Remove this clause and extend (b) and (c) or make reference to a regulated rate for RP services as determined by the jurisdiction in (f)." [111]

SP AusNet states in reference to paragraphs (ca) and (d):

> "It would seem inappropriate [that] there should be an unqualified process within Chapter 7 for the dispute of a standard set of terms and conditions as generally these will be determined through the DNSP's access arrangement establishment process involving the AER. The dispute mechanism for these would be a more fundamental one of questioning the AER's determination."[112]

4.18.3 Commission's considerations

The Commission supports NEMMCO's policy intent in regards to this Rule change proposal.. The Commission considers that the proposed provision is consistent with current jurisdictional requirements and industry practice, provides consistency and removes any confusion with current practice.

Origin Energy's suggestion in relation to clause 7.2.3(d) is that the paragraph be deleted as it permits the LNSP to charge "exorbitant and unrealistic" fees. Instead, Origin suggests that paragraphs (b) and (c) should be expanded to incorporate a regulated rate for LNSP services.

The Commission notes that this does not alter the intent of the current provision. The current provision in paragraph (d) was first contained in Chapter 9 of the Rules as a jurisdictional derogation. This was included in the Rules in 2002 at the commencement of FRC. The jurisdictional derogation in Chapter 9 (for each jurisdiction) was harmonised into one provision and incorporated into clause 7.2.3 during the 2006 Rule changes. Paragraphs (d) to (h) were introduced into clause 7.2.3 in accordance with this harmonised approach. There is no known failure of these provisions. It is noted that paragraph (f) controls paragraph (d) and should give parties a right to address any abuse of process. Accordingly the suggestion is not supported.

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[111] Origin submission, p.2.

[112] SP AusNet submission, p.5.

SP AusNet comments on paragraph (g). The suggestion is to permit an appeal to the AER in addition to the ability to dispute the offer in accordance with the Dispute Resolution Procedures. SP AusNet's suggestion would impose a function on the AER to receive the appeal and to deal with that appeal. The Commission considers that the dispute resolution procedures are adequate and that no further mechanism is required. Accordingly this suggestion is not supported.

4.18.4 Assessment of the Proposal against the NEM objective and the Commission's decision

The Commission considers that the Rule change proposal sets up a framework for efficient and timely transfer of retailers for consumer connection points where the retailer agrees to act as the responsible person for type 5, 6 or 7 metering installations. The Commission considers that the efficiency and competition benefits arising from this framework from FRC practices would eventually flow onto end use customers and therefore this Rule change proposal represents a promotion of the NEM objective.

4.18.5 Differences between the Draft Rule and the Proposed Rule

The Commission has accepted the substance of NEMMCO's proposed amendment which is reflected in the draft Rule in clause 7.2.3.

4.19 Rule Change Proposal no. 19 – Address NEM efficiencies – time setting

4.19.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that within the NEM, the parties responsible for time setting in each metering installation may vary depending upon the type of metering. The current rules relating to time setting are principally to support type 1-4 metering installations and do not recognise the time setting requirement or obligations for type 5-7 metering installations. Further the existing Rules do not assign responsibility for maintaining timing requirements.

NEMMCO states that the proposed Rule change distinguishes between the different obligations of NEMMCO and the responsible person in maintaining timing requirements for a metering installation, metering database and metering installation database as a function of the type of metering installation. NEMMCo states that this includes types 5-7 metering installations.

NEMMCO states that the proposed arrangement provides NEMMCO and industry with a clear understanding of the allocation of responsibilities in a single clause which assists industry to understand the differences and similarities between the requirements of the various metering types. NEMMCO states that this assists industry participants in their management of their responsibilities and with compliance.

NEMMCO states that this Rule change will promote efficiency within participants while maintaining the integrity of meter related time. It believes that bringing similar obligations together within the Rules assists participants to meet their compliance obligations, and aids market efficiency which in turn contributes to the NEM objective.

4.19.2 Views in submissions

ActewAGL states in relation to paragraphs (b) and (ba):

> "ActewAGL disagrees with having to set all desktop computers ± 1 second to AEST. This increases costs to maintain separate servers and PC's specifically for meter data, will only benefit Retailers, and most participants have corporate servers linked to desktop PC's used daily for appointments and meetings, etc.
>
> Revise this statement or set out a detailed document of why this must be so and possible solutions, as generally it may only be the MDM files to NEMMCO that may need to have the creation datetime stamp set to AEST." [113]

Citipower and Powercor state in relation to paragraph (ba):

> "The term metering installation database is expressed in italics indicating that it is a defined term, however no definition is provided. Unless it is intended to provide a definition the italics should be removed from the word "database"." [114]

4.19.3 Commission's considerations

The Commission supports NEMMCO's policy intent in relation to this Rule change proposal.. The proposed provisions separate types 1-4 installations from types 5-7 and removes any difficulty in determining who has this responsibility for the metering database.

ActewAGL disagrees with the requirement for NEMMCO to maintain the "metering database" clock to ± one second. There is no explanation as to why ActewAGL has this concern with the NEMMCO database. It is not clear from the explanation provided by ActewAGL how desktop computers, to which the company refers, relates to the NEMMCO "metering database" for types 1-4 metering installations. Accordingly, this suggestion has not been included.

ActewAGL disagrees with the requirement for the responsible person to maintain the "metering installation database" clock to ± 1 second. It is assumed that the

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[113] ActewAGL submission, section 2.2.

[114] Citipower and Powercor submission, p.10.

concern is raised from the company's role as a responsible person. The concern appears to relate to desktop computers. However it is unclear from the explanation why the desktop computer clock accuracy is raised in this instance as a problem. It is noted that no other submission has raised this concern. In the absence of any further information, this suggestion is not included.

4.19.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that the Rule change proposal consolidates the requirements for time setting for types 1-4 metering installations and types 5-7 metering installations. The Rule change proposal sets out the responsibilities for the various parties involved and in so doing clarifies the requirements, which in the view of the Commission promotes efficiency and the integrity of meter related time. For these reasons the Commission is of the view that the Rule change proposal promotes the NEM objective.

4.19.5 Differences between the Draft Rule and the Proposed Rule

The Commission has incorporated NEMMCO's proposed changes with no substantive amendment.

4.20 Rule Change Proposal no. 20 – Address NEM efficiencies – design standards

4.20.1 NEMMCO proposal

NEMMCO in its Rule change proposal states that the current arrangement for general design standards and requirements for meters and new instrument transformers under the Rules are spread over a number of provisions. NEMMCO states that these standards and requirements rely on superseded Australian and International Standards, and National Standards Institute arrangements.

NEMMCO states that, the statement relating to the responsible person providing the relevant approval certificates to NEMMCO on request is also redundant, as the Federal enforcement mechanisms under the National Measurement Institute are sufficient[115].

NEMMCO states that the proposed Rule change reflects updates to Australian and International Standards and incorporate related provisions of Schedules S7.2.6.1(f) and (g) and S7.3.1(a) to provide a single location for these requirements. NEMMCO states that that the changes also reflect the current practice under the National

[115] Enforcement is carried out by an authorised officer set out in s18ZM of the Commonwealth National Measurement Act.

Measurement Institute in the application of type test certificates in transitional arrangements.[116]

NEMMCO states that the proposed changes increase clarity and remove ambiguity from the specification of design standards, resulting in ease of compliance and thus improved market efficiency. According to NEMMCO the proposed changes reflect current industry practice and contribute to market certainty, and therefore build confidence in market processes.

4.20.2 Views in submissions

Ergon Energy states in relation to clause S7.2.6.1(g):

> "Ergon Energy queries whether the pattern approvals and type test certificates for instrument transformers are required in circumstances of one off high voltage designs." [117]

TransGrid states:

> "The re-drafted clause S7.2.6.1 (g) does not include a reference to AS1243 to provide for three phase inductive voltage transformers which is not covered by the AS60044 series of Australian Standards. It is recommended that S7.2.6.1(g) be amended to include a reference to AS1243." [118]

NEMMCO states in its supplementary submission that:

> "The new AS60044 series of standards does not make provision for one category of voltage transformer widely used in the NEM – three phase inductive voltage transformers.
>
> Adding AS1243 – 1982 to the list of standards under Clause s7.2.6.1(g) will not reduce the technical quality of the final installations, but will permit three phase inductive voltage transformers to continue to be used.
>
> Although the standard is 25 years old, a significant volume for equipment in service in the NEM has been purchased to this standard, and equipment purchased under this standard will meet the overall accuracy standards of the NER.

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[116] These arrangements are found in the National Measurement Regulations (Commonwealth) 1999.

[117] Ergon submission, p.8.

[118] Transgrid submission, p.2.

NEMMCO recommends that the suggestion raised by TransGrid in their submission dated 27 July 2007 be accepted, and AS1243-1982 be retained in clause s7.2.6.1(g)." [119]

4.20.3 Commission's considerations

The Commission supports the policy position adopted by NEMMCO in relation to this Rule change proposal, with some amendments as to how the standards are identified to improve efficiency in the operation of the Rules. The proposed provisions update the relevant standards without changing the objective of the clause.

The need to have a valid pattern approval for a meter is consistent with the foreshadowed requirements of the National Measurement Act[120]. The need to have a valid type test certificate if the regulatory arrangements for pattern approval have not been enacted is consistent with current metrology arrangements under the National Measurement Act[121].

Ergon Energy's comments in relation to clauses S7.2.6.1 (g), seek clarification on the need for pattern approval and type test certificates for instrument transformers for one-off high voltage designs. From the description of the query, it is not clear if Ergon Energy is discussing the design of the assembled infrastructure. Instrument transformers used in the design must have pattern approval and type test certificates. In the case of the design of transformer characteristics, instrument transformers must receive pattern approval and type test certificates before they can be used. Accordingly there is no change to the proposed provision arising from this point of clarification.

TransGrid comments that in relation to clause S7.2.6.1(g), the suggestion is to include reference to AS1243 "Voltage Transformers" as the nominated series. NEMMCO has advised in its supplementary submission that the AS60044 series of standards is not broad enough to cover three phase inductive voltage transformers. Furthermore Transgrid's suggestion to incorporate AS1243 is no longer relevant as the Commission has amended the way standards are referenced in the Rules.

The Commission has delegated the role of identifying standards to the Metrology Procedure where the power to identify a standard for a particular matter such as voltage transformers remains in the Rules. The Commission considers that given the fact that Australian and International Standards are regularly updated, identifying the standards in the Rules will require a Rule change every time the standard that is referenced has been superseded or replaced. The Commission considers that identifying the standards in the Metrology Procedure is a more efficient process while still ensuring the relevant safeguards are in place so as not to give NEMMCO a broad power in imposing standards.

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[119] NEMMCO supplementary submission, p.4.

[120] National Measurement Act s.19A

[121] National Measurement Act s19A

If the change to the standard is simply an update and not a substantive change, NEMMCO has the power to update the Metrology Procedure without consultation for administrative and minor matters. If the change to the standard involves a substantive change, NEMMCO will be required to undertake the Rules consultation procedures. Furthermore, the power to identify standards in the Rules is clear and quite narrow in the sense that is limited to a specific matter and not a general power to identify standards in the Metrology Procedure.

4.20.4 Assessment of the proposal against the NEM Objective

The Commission considers that the Rule change proposal reflects updates to the Australian and International standards required for meters and new instrument transformers. The draft Rule also provides a mechanism that allows for the ease of future updates to ensure the accuracy in the specification of the standards that are to apply. The Rule proposal therefore sets up a framework of standards that reduces ambiguity and provides clarification for service providers and Market Participants and the Commission therefore considers that this Rule change proposal promotes the NEM objective.

4.20.5 Differences between the Draft Rule and the Proposed Rule

The Commission has amended the references in the proposed provisions to specific standards and instead inserted the phrase "as identified in the Metrology Procedure by NEMMCO". The Commission considers this approach will be a more efficient and accurate method of standards identification. The Commission has also replaced other references to standards in Chapter 7 with this phrase.

4.21 Rule Change Proposal no. 21 – Address NEM efficiencies – Recognition of International Laboratory Accreditation Cooperation (ILAC)

4.21.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the Rule currently dealing with the source of measurement standards reflects a requirement to meet standards and practices established and maintained through Australian institutions. TNEMMCO states that this was industry practice at the time of the drafting of the original National Electricity Code.

NEMMCO states that modern industry practice is to recognise international standards and accreditations where this is possible without reducing the technical standards of the Rules or procedure.

NEMMCO states that some measurement and test equipment used in Australia must be sourced from overseas and that under current Rule requirements, this equipment must be tested at a National Association of Testing Authorities (NATA) accredited laboratory before it is placed into service. NEMMCO states that this equipment, , will have been tested prior to dispatch and hence the retesting in an Australian

laboratory is a duplication of effort, which delays putting the equipment into service and is an unnecessary inefficiency.

NEMMCO states that its proposed solution is to recognise the certification of overseas testing laboratories which are appropriately accredited. NEMMCO states that , the International Laboratory Accreditation Cooperation (ILAC) is a formal cooperation with a charter to establish a network of mutual recognition agreements among accreditation bodies. NEMMCO states that NATA is a member of ILAC, and that NATA recognises the certification provided laboratories that are accredited by an ILAC member body.

NEMMCO proposes to accept test certificates issued by a body recognised by NATA under the ILAC mutual recognition scheme.

NEMMCO states that the proposed Rule change will allow Metering Providers to arrange for the testing of imported test equipment prior to dispatch from the country of manufacture, and facilitate the equipment going into service at an early time.

NEMMCO states that because the Metering Provider can have confidence that the equipment meets the requirement in the Rules at the time of receipt, there will be a shorter delay to place equipment into service. It states that current practice requires that test equipment is received into the Metering Provider's depot, and then testing is arranged at the NATA laboratory which may involve a substantial delay (possibly twelve months) before the purchased equipment can be put in service.

NEMMCO states that the proposed Rule change will reduce the period between expenditure on test equipment and commencement of service, and hence improve return on assets employed for Metering Providers which would contribute to market efficiency.

NEMMCO states that certainty of investment will be improved for Metering Providers, who may be encouraged to invest in more efficient test equipment. It states that competitive pressures between Metering Providers will ensure that the financial benefits of such investments will, in time, become benefits to NEM consumers.

4.21.2 Views in submissions

Ergon Energy states:

> "Ergon Energy believes that the proposed amendment to Schedule 7.3.2(b) goes well beyond the stated intent of recognising the certification of overseas testing laboratories which are appropriately accredited. In particular:
>
> - The drafting changes introduce a requirement that a current test certificate issued by a NATA accredited body be obtained for all reference / calibrated equipment, rather than tested to ensure full traceability to the reference standards. Currently, the highest specification standard is sent to NATA (or a NATA accredited

laboratory) for calibration annually. All other test equipment is calibrated against this standard 'in-house'; and

- If left as proposed, the amendment will impose significant costs on the Metering Provider and impede market efficiency by requiring all meter test equipment to be sent to a NATA accredited laboratory for calibration each year, or in some cases, 6-monthly. A calibration test can cost around $2,000 for one standard, with a three week turnaround. Metering Providers could therefore face both delays and significant additional costs. These costs do not appear to have been considered in the analysis of how the proposed Rule change will contribute to the achievement of the NEM objective." [122]

Ergon Energy proposes that, to address these concerns, Schedule 7.3.2(b) be amended to read:

"All reference/calibrated equipment used by Metering Providers for the purposes of meeting test or inspection obligations shall be tested to ensure full traceability to a test certificate issued by a NATA accredited body or a body recognised by NATA under the ILAC mutual recognition scheme." [123]

4.21.3 Commission's considerations

The Commission supports the policy intent of this Rule change proposal.. The proposed provision is based on improved knowledge and processes that have emerged since the start of the NEM. The Commission considers it appropriate to update this provision to align it with best available knowledge and practice. It is also appropriate to realign the provision to the National Association of Testing Authorities (NATA) which is a regulatory body established to control (in part) the standard of weights and trade measurement equipment.

Whilst the Commission accepts the substance of the proposed provisions, the Commission has made drafting amendments and the substance of the clause has been incorporated into clause S7.4.3. The Commission considers clause S7.4.3 which deals with the capabilities of Metering Providers as the more appropriate location for this provision. The NEMMCO proposal has been adopted in intent.

In relation to Ergon Energy's comments it is agreed that the literal interpretation of the proposed provision requires a Metering Provider to obtain a test certificate for all "reference /calibrated equipment". Ergon Energy suggests a marked up change to the proposed provision to address its concerns. On review the Commission considers that the Ergon Energy suggestion appears to be reasonable. In the absence of any other comment on this issue the Commission seeks comment from interested stakeholders as to:

[122] Ergon submission, p.8.

[123] Ergon submission, p.9.

- Why in-house calibration systems processes are used and what quality control surrounds these processes; and

- Whether the phrase 'reference/calibrated equipment' should relate to ALL test devices or only to 'reference standards'.

The Commission understands that there is a possibility that Ergon Energy could exercise a choice to obtain accreditation status from NATA so as to manage its 'in-house' quality control.

4.21.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that the Rule change proposal provides benefits to Metering Providers in that imported equipment may be tested before arrival thus facilitating the equipment going into service at an earlier time which results in a market efficiency. The Rule change proposal also increases the potential for competition as other products become more attractive due to the efficiencies thus benefiting NEM consumers. The relocation of the proposed provision in a different location in the Rules to the one proposed, removes repetition and improves the efficiency of the Rules. The Commission therefore considers that this Rule change proposal promotes the NEM objective.

4.21.5 Differences between the Draft Rule and the proposed Rule

As noted above, the Commission has incorporated the proposed provision in clause S7.4.3 as opposed to the proposed location of clause S7.3.2. Clause 7.4.3(b)(5) has identical wording to the clause under consideration. To avoid unnecessary duplication in the Rules, the Commission considers this amendment appropriate.

4.22 Rule Change Proposal no. 22 – Address NEM efficiencies – timeframes for inspection and testing of various metering installation types

4.22.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the current timeframes outlined for inspection and testing of various metering installation types under the Rules limits the flexibility for development and innovation in the area of inspection and testing of metering installations by restricting the allowable timeframes.

NEMMCO proposes to recognise that alternate asset management strategies may be utilised, if approved by NEMMCO, to allow for innovation in maintenance programs without reducing the overall standard of performance.

NEMMCO states that the amendments assist market efficiency by allowing for alternative testing strategies to be developed outside the "default" strategy. NEMMCO states that this creates the opportunity for Metering Providers to innovate and develop more efficient business processes for the management of their installed

metering equipment and promote more efficient investment. NEMMCO states that this would lead to increased effectiveness of NEM processes and services and therefore add to the efficiency for the ultimate benefit of end-use customers.

4.22.2 Views in submissions

Origin Energy states:

> "With respect to the asset management strategy as approved by NEMMCO, it is not clear as to what requirements the strategy is to meet so approval will be obtained. Again the Local Retailer will carry the financial risk if errors occur as a result of incomplete or flawed strategies.
>
> It is suggested that NEMMCO develop a set of requirements that the asset management strategy would be measured against for approval and that this set of requirements be ratified by the Local Retailers." [124]

4.22.3 Commission's considerations

The Commission has accepted NEMMCO's proposed provisions. The provisions relate to the range of devices identified in the Table. The paragraph permits an "asset management strategy" to override the timeframes specified in the Table. The Commission considers the clear allocation to the responsible person of preparing the asset management strategy as appropriate. The Commission considers the proposed provision to be logical, clear and provides service providers with the opportunity to innovate and increase efficiency of their practices as new technology becomes available.

Origin Energy's comments are that in relation to both tables, Origin Energy would like the provision to contain a set of principles to which NEMMCO must abide when approving an 'asset management strategy'. While a set of principles to guide NEMMCO's decision would be beneficial, it would be inappropriate to introduce these without industry consultation. The Commission seeks comments from interested stakeholders on whether such principles should be identified in the Rules.

4.22.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that this Rule change will provide a benefit to Metering Providers as it will provide flexibility for development and innovation in the testing area. The Commission considers that the proposal provides for the development of more efficient management strategies of metering assets and more efficient business processes which would be expected to ultimately benefit end use customers. For these reasons the Commission is of the view that the Rule change proposal promotes the NEM objective.

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[124] Origin submission, p.4.

4.22.5 Differences between the Draft Rule and the Proposed Rule

The Commission has accepted NEMMCO's proposed provisions with no substantive change.

4.23 Rule Change Proposal no. 23 – Address NEM efficiencies – review of overall accuracy tables

4.23.1 NEMMCO proposal

NEMMCO states in its Rule change proposal that the accuracy tables contained within the current provisions of the Rules (Schedule 7.2 of the Rules) are based on Australian Standards for meters and instrument transformers that were current in 1998.

NEMMCO states that subsequently, in 2003 Australian Standards for instrument transformers (AS1243-1982 and AS1675-1986) were superseded by new Australian Standards (AS60044.1 and AS60044.2) based on international instrument transformer standards.

NEMMCO states that an industry working group convened by NEMMCO in 2004 (the Metering Technology Working Group) reviewed the accuracy requirements contained within the current Schedule 7.2. NEMMCO states that the Metering Technology Working Group also developed recommendations for amendments to Schedule 7.2 for submission to the National Electricity Code Administrator (NECA). NEMMCO states that, at the time of the conversion from the National Electricity Code to the Rules in 2005, NECA had not attempted to address this submission.

In this Rule change proposal NEMMCO proposes to address some of the issues initially raised by the Metering Technology Working Group in relation to the current Schedule 7.2 of the Rules, and issues that have been further refined by the Metrology Reference Group. These issues are that:

- The new Australian Standards for instrument transformers widens the allowable error tolerances at lower currents, and nominates test points for determining accuracy requirements that differ from the test points nominated in the Rules. This has the effect that the test points which must be tested to assure compliance with Australian Standards are different to the test points required for assurance of compliance with the Rules, forcing additional testing of instrument transformers;

- The errors in tables S7.2.3.2 to S7.2.3.5 are based on using instrument transformers compliant with the former Australian Standards. The errors have been re-calculated to accommodate the requirements under the new Australian Standards. The errors have been re-calculated to accommodate the requirements under the new Australian Standards. Industry practitioners are finding the test point at 50% rated load, 0.5 lagging is very difficult to achieve in practice and propose a loosening of the requirements at this point;

- There is no co-relation of comparative errors across tables at load points where such a relation might be expected. For example, industry practitioners considered that there should be co-relation between the 100% rated load point for a type 2 installation and the 10% rated load point for a type 1 installation; and

- Type 5 and 6 metering installations do not have tables of accuracy similar to the tables of accuracy used for types 1-4 metering installations. The publication of such tables would be beneficial to users of the Rules.

NEMMCO states that accuracy standards are referred to 35 degrees Celsius, whereas international practice, reflected in current Australian Standards for metering equipment, is to use a reference temperature of 23 degrees Celsius.

In this Rule change proposal, NEMMCO proposes that the errors specified in tables S7.2.3.2 to S7.2.3.5 be amended to reflect the requirements under the Australian Standards for instrument transformers.

NEMMCO states that industry also proposes that a co-relation of comparative errors across tables be established for load points that are equivalent. For example, it would be appropriate to set the anticipated maximum errors for the 100% rated load point for a type 2 installation to a similar value to the 10% rated load point for a type 1 installation.

According to NEMMCO states that the establishment of a table of errors for type 6 metering installations (Table S7.2.3.6) that is similar to the existing tables for types 1-4 is also part of the solution for this matter. NEMMCO also states that the inclusion of type 5 in the heading of Table S7.2.3.5, to recognise that type 4 and type 5 accuracy standards are similar is also required. NEMMCO notes notes that Table S7.2.3.6 has also been amended to align the reference temperatures with international practice and current Australian Standards for metering equipment.

NEMMCO is of the view that in many instances instrument transformers can only be sourced from overseas, and hence there is a need for accuracy standards to be based on international technical requirements.

NEMMCO states that the requirements under Australian Standards have been harmonised to equivalent international standards, and that the resultant changes need to be reflected into the Rules. NEMMCO states that this is to allow Metering Providers to readily use equipment manufactured to international standards and which can often not be sourced locally.

NEMMCO is of the view that the changes to the values in the tables S7.2.3.2 to S7.2.3.5 and the new Table S7.2.3.6 add clarity and assist participants and service providers to understand the requirements necessary for compliance. NEMMCO state that there is a benefit to all industry participants if compliance requirements are explicit and understood without the need for interpretation. NEMMCO states that this benefit translates into a market efficiency which is to the ultimate benefit of end use consumers.

According to NEMMCO states that changes to values in the tables S7.2.3.2 to S 7.2.3.5 make compliance at some test points less technically onerous, without materially reducing the quality and accuracy of the metering installation. NEMMCO states that

those test points which were difficult to achieve for Metering Providers added to testing costs without adding to the overall quality of the metering installation. NEMMCO also states that compliance with strict values in the current tables were not offering a value to end-consumers commensurate with the complication and cost of the testing.

NEMMCO states that the alignment of the reference temperature with international standards greatly simplifies the comparison of test results from overseas, and eliminates the need for a translation or interpretation of the results.

4.23.2 Views in submissions

EnergyAustralia states:

> "In relation to smart meters, we consider one useful change that could be considered as part of the current rule changes is relaxation of the Accuracy Tables (Rule change number 23). This approach has already been adopted in Victoria and we understand officials advising the MCE have considered relaxation of these requirements during the transition to smart meters as it would reduce the quantity of non-smart meters installed in the meantime before mass market deployment, due to commence from 2009." [125]

TransGrid states:

> "The rationale and relativities to the other S7.2.3.n Tables for the proposed new Table S7.2.3.6 are not fully evident in the material included in the Rule change proposal.
>
> For example, it would appear that an additional 0.5% overall error allowance at full load is provided between Type 5 and Type 6 metering installations. This extra 0.5% seems also to apply for the 50% load and unity power factor test point, which is consistent, but does not appear to apply for the 50% 0.5 pf lagging and the 10% unity power factor test points. In fact, the Type 6 50% 0.5pf lagging test point overall error allowance is tighter (2.0%) than that allowed for the Type 4 and 5 metering installations (2.5%).
>
> It is also noted that overall errors have also been specified in Table S7.2.3.6 for 10% and 100% load 0.5 pf test points, whereas Tables S7.2.3.2 to 5 have these test points listed as not applicable. Is this a mistake, or is there some rationale for why Type 6 metering installations should have additional requirements that the Types 1 to 5 metering installations do not have?
>
> It is suspected that Table S7.2.3.6 was intended to be shown as:

[125] EnergyAustralia submission, p.2.

		Power Factor	
% Rated Load	Unity Active	0.866 Lagging Active	0.5 Lagging Active
10%	3.0%	n/a	n/a
50%	2.0%	n/a	3.0%
100%	2.0%	n/a	n/a

Data source: [126]

NEMMCO states in its supplementary submission that:

> "The comments of TransGrid are also relevant in relation to this Rules change proposal.
>
> NEMMCO notes the assessment by TransGrid in the third paragraph of their comments on this proposal. It is not necessary to define accuracy at test points of 10% and 100% at 0.5 lagging power factor, provided the accuracy standard is established at 50% load, 0.5 power factor. We therefore accept the proposition that the test points be labelled n/a.
>
> The need for the broadening of error bands for type 6 metering installations derives from the considerable spread of metering installation types which might be covered by the table. As indicated by TransGrid in the second paragraph of their comments on this proposal, it is not possible to meet the accuracy standards in the current table with a general purpose meter connected through an appropriate class instrument transformer. It is therefore appropriate to open out the error limits to provide for this form of installation.
>
> NEMMCO therefore recommends the adoption of the table proposed by TransGrid for table S7.2.3.6." [127]

4.23.3 Commission's consideration

NEMMCO's policy position in regards to this Rule change proposal is supported. The Commission understands that the proposed provisions address some of the issues raised by the Metering Technology Working Group in relation to Schedule 7.2 of the Rules.

Tables S7.2.3.2 to S7.2.3.5 contains the maximum allowable error for types 1-5 metering installations for three levels of rated load and different power factors. The proposed amendments relate to errors at 10% load (for unity and limited lagging power factor) and 50% load (for large lagging power factor).

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[126] TransGrid submission, p.2.

[127] NEMMCO supplementary submission, p.4.

Table S7.2.3.6 is a new table and contains the maximum allowable error of the type 6 metering installation for three levels of rated load and different power factors. The maximum allowable error at full rated current has been relaxed to 2.0% which is consistent with international rating.

The Commission considers it appropriate to accommodate these amendments as it is necessary to update Chapter 7 to changes in Australian Standards.

EnergyAustralia suggest, in a broad statement, that the proposed provisions should be relaxed. It is noted that Energy Australia has not rejected or disagreed with the details of the proposed provision. It is noted that any change to the technical detail of the Tables would be subject to consultation with industry groups at an earlier stage to the Draft and Final determinations. Accordingly this suggestion is not supported.

TransGrid has queried the operation of Table S7.2.3.6. NEMMCO in its supplementary submission agreed with TransGrid in relation to the error limits given the broad range of metering installations that would be covered by this Table. The Commission considers the amendment to be appropriate as the requirements as proposed by TransGrid (and adopted by the Commission) will incorporate a greater number of metering installation types. This has the effect of incorporating further installations into the existing framework without the need create further requirements for those installations outside the scope of the Table.

4.23.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that harmonising Australian Standards to equivalent international standards (through tables S7.2.3.2 to S7.2.3.5, and new Table 7.2.3.6) provides a mechanism for meter providers to use equipment that is sourced form oversees. The Commission is also of the view that the tables make the existing standards less technically onerous, without reducing the quality and accuracy of the metering installation. The Commission considers that the Rule change proposal would promote market efficiencies through increased availability of equipment, and reduce costs for Metering Providers due to the introduction of the new standards. The Commission therefore considers that this Rule change proposal does promote the NEM objective.

4.23.5 Differences between the Draft Rule and proposed Rule

The Commission has amended Table S7.2.3.6 in accordance with Transgrid's comments and NEMMCO's supplementary submission.

4.24 Rule Change Proposal no. 24 – Address NEM efficiencies – single table of requirements (Schedule 7.3)

4.24.1 NEMMCO proposal

NEMMCO in its Rule change proposal states that testing uncertainty requirements are currently split across the Rules Schedule S7.3.1 (b) and Table S7.3.1. However, NEMMCO states that the presence of these requirements at two locations creates the possibility of ambiguity and uncertainty about the requirements.

NEMMCO states that in the case of current and voltage transformers, the uncertainties are currently expressed solely in terms of ratio error, whereas phase error specification is equally important. NEMMCO states that, for voltage transformers, the phase error uncertainty (in crad) can be set at the same as the ratio error – thus a ratio error of 0.1% matches a phase error of 0.1 crad. For current transformers, NEMMCO states that the phase error limits need to be opened out to 50% greater than the ratio error; in this case a ratio error of 0.1% is matched to a phase error of 0.15 crad.

NEMMCO states that in many cases metering equipment is tested before the metering installation type is determined. NEMMCO states that it would therefore be more appropriate for testing uncertainty to be specified in terms of the class of the equipment rather than the metering installation type.

NEMMCO proposes that testing uncertainty requirements that are currently split across Schedule S7.3.1 (b) and Table S7.3.1 be amalgamated into a single table. In relation to the expression of uncertainties for current and voltage transformers, NEMMCO propose new uncertainty values that better reflect the accuracies being sought. NEMMCO states that these values, as stated by NEMMCO are expressed in terms of ratio error and phase error.

NEMMCO states that if the maximum allowable testing uncertainties are specified in terms of the accuracy class of the equipment under test, the test house or Metering Provider is in an unambiguous position as to the standard of testing required. NEMMCO states that this is the case because the class of the equipment is contained on the plant nameplate. NEMMCO propose to re-cast Table S7.3.1 so that the requirements are in terms of the "metering equipment class" of the equipment being tested rather than in terms of the destination metering installation type.

NEMMCO states that amalgamating the testing uncertainty requirements that are currently split across Schedule S7.3.1(b) and Table S7.3.1 into an amended Table S7.3.1 would improve the clarity of requirements. NEMMCO is of the view that removal of potential ambiguity aids efficiency in the NEM and states that the proposed amalgamation is effectively editorial, as it makes no material difference to the requirements that are being merged into the amended Table S7.3.1. NEMMCO states that having a single source (Table S7.3.1) for requirements assists Metering Providers to meet their compliance obligations.

NEMMCO states that the expression of uncertainties for current and voltage transformers in terms of ratio error and phase error reflects the industry standard in relation to defining transformer errors. NEMMCO states that the current expression

in terms of an absolute error requires interpretation, and one interpretation could result in an overly onerous requirement that adds cost to testing and hence unnecessary costs to the end-use consumer. NEMMCO states that the proposed expression of errors reflects national and international standards for the expression of errors for instrument transformers, and is unambiguous.

NEMMCO states that the expression of maximum allowable level of testing uncertainty in terms of the ″metering equipment class″ allows the laboratory conducting the test to establish the test requirements without needing to determine the ultimate location of the metering equipment, or the energy volumes anticipated for the site. NEMMCO states that it also facilitates the testing of equipment as "spares", knowing that the equipment may be installed in, type 1, type 2 or a type 3 metering installation with confidence that the equipment will have been tested to the requirements of the Rules. NEMMCO states that this opens up flexibilities for Metering Providers and Network Providers in relation to preparation of instrument transformers for major connection points, which has potential benefits in relation to planning and investment decisions. NEMMCO states that these benefits contribute to the NEM objective by making the provision and testing of metering equipment more cost effective.

4.24.2 Views in submission's

TransGrid states:

> "The proposed amended table S7.3.1 would appear to include an error for the "In Field" "Class 2.0" "Meters Wh" table entry. The maximum allowable level of testing uncertainty is shown as 0.3/cosΦ%, however, class 2.0 Wh meters do not meet the minimum requirements for any metering installation in Table S7.2.3.1. the only class 2.0 meters permitted in Table S7.2.3.1 are class 2.0 varh meters.
>
> Therefore, it would seem appropriate that the 'In Field" Class 2.0" 'meters Wh" Table S7.3.1 entry should read "n/a"." [128]

NEMMCO states in its supplementary submission:

> "In their submission to AEMC TransGrid notes that Class 3.0 active energy meters do not meet the minimum requirements of Table 7.2.3.1, and therefore the entry in table S7.3.1 under "In Field" "Class 2.0' "Meters Wh" should read "n/a"
>
> NEMMCO concurs with the TrasnGrid submission on this point.

[128] TransGrid submission, p.3.

The unit crad (centiradians), which appears to be missing from the table in the submission document, is visible when the change marks are removed. This appears to be a quirk of the word pressing software." [129]

4.24.3 Commission's considerations

NEMMCO's policy position in relation to this Rule change proposal is supported. The Commission considers that the deletion of the current Table in this clause and the relocation of the relevant information to Table S7.3.1 is logical, improves reading of the provisions and removes any possibility of ambiguity.

Transgrid raises a concern with the difference of information shown in Tables S7.2.3.1 and S7.3.1. In Table S7.2.3.1, the type 6 metering installation has a minimum class General purpose meter with an overall maximum error of 1.5% for Wh. It is noted that the marked up version of Chapter 7 submitted by NEMMCO, shows an increase in the maximum error to 2.0% for Wh, but this change does not appear to be explained in any of the 26 Rule change proposals. In Table S7.3.1 a column has been allocated to a class 2.0 Wh meter. There is no provision for this meter in a metering installation according to Table S7.2.3.1. On review it would appear that NEMMCO had intended relaxing the classification of meter for a type 6 metering installation to the class 2.0 standard, but has not adequately dealt with this in the Rule change proposal.

On the basis of the TransGrid comment, Table S7.3.1 should have the reference to a value for Class 2.0 Wh replaced by "n/a". NEMMCO confirmed this in its supplementary submission and the Commission has made this amendment to the Draft Rule."

The manner in which NEMMCO has achieved its policy intent is supported however in relation to Table S7.3.1 the entries in the table for CT errors (for class 0.2 and Class 0.5) are missing their unit of 'crad', which have now been included.

The level of testing uncertainty for meters that measure active energy (other than General Purpose meters) has not been changed in the proposed provisions. For general purpose meters, the level has been lowered from 0.3/cosΦ% to 0.2/cosΦ%. This reduction represents a tightening of the quality of the equipment and consequently is acceptable.

4.24.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that amalgamating testing uncertainty requirements into one amended table will improve the clarity and presentation of these requirements. Though this is largely an editorial matter as the requirements remain the same, it still provides benefits to Metering Providers. The clarification of uncertainties for current and voltage transformers in relation to current error and phase errors aids with

[129] NEMMCO supplementary submission, p.5.

compliance by Metering Providers. For these reasons the Commission is of the view that the Rule change proposal promotes the NEM objective.

4.24.5 Differences between the Draft Rule and the proposed Rule

As noted the analysis above in relation the maximum error for Class 2.0 Wh, the Commission has made amendments as proposed by Transgrid which are supported by NEMMCO.

4.25 Rule Change Proposal no. 25 – Address audit issue – NEMMCO audit of meter 'test results'

4.25.1 NEMMCO proposal

NEMMCO in its Rule change proposal, states that the current provision of the Rules (clause 7.6.1 (c)) requires NEMMCO to check the test results of every meter tested by the responsible person (under clause (a) and in accordance with Schedule 7.3). NEMMCO submits that while this might have been possible at the commencement of the market, the requirement for NEMMCO to check the test results of every meter test is impractical and considered to be unnecessary, provided sufficient sample checking of test results is undertaken.

NEMMCO states that the application of Chapter 7 to first tier metering installations will mean a huge increase in the number of meters operating under the Rules, increasing the difficulty and cost of checking the test results of every metering installation. NEMMCO states that when these mass market meters were the responsibility of the jurisdictional metering codes similar test procedures for meter families did not require the regulator to view every test result.

NEMMCO proposes to vary the clause to put in place a more practical approach to the audit of meter tests so that NEMMCO must audit the test results and arrange for sufficient testing of meters to satisfy itself of the accuracy of metering installations.

In the Rule change proposal NEMMCO proposes to:

- Reduce the burden on NEMMCO that would otherwise result from checking the results of every metering installation tested which would increasingly include mass market meters; and

- Reduce costs and improve efficiencies compared with the existing requirement without any reduction in the overall accuracy of the meter population.

4.25.2 Views in submissions

No submissions explicitly commented on this Rule change proposal.

4.25.3 Commission's considerations

NEMMCO's policy position in relation to this Rule change proposal is supported. Under the current arrangements, NEMMCO is required to check every test result recording in the metering register. The Commission considers that while this was reasonable at the commencement of the NEM, it is no longer reasonable for an FRC environment where it is possible to store the details of around 8 million metering installations in NEMMCO's metering register. NEMMCO's proposed amendments relieve NEMMCO of this mandatory requirement for administrative reasons and to replace it with a more flexible arrangement.

The proposed provision will require NEMMCO to satisfy itself of the accuracy of the metering installations in general and to arrange sufficient audits to effect that satisfaction. The Commission considers that NEMMCO's role has been maintained but how NEMMCO undertakes this role has been affected in the interests of a more efficient process.

4.25.4 Assessment of the proposal against the NEM objective and the Commission's decision

The Commission considers that removal of an unnecessary burden on NEMMCO to check the results of every metering installation tested would reduce its costs (and therefore improve the efficiency of the NEM) without reducing the overall accuracy of the meter population. In this regard the Commission is satisfied that the proposal promotes the NEM objective.

4.25.5 Differences Between the draft Rule and the proposed Rule

The Commission had adopted NEMMCO's proposed amendments with no substantive change.

4.26 Rule Change Proposal no. 26 – Address editorial changes – editorial changes within chapter 7

4.26.1 NEMMCO proposal

NEMMCO states that this proposed Rule change addresses a number of minor issues identified in the course of developing the 'first tier' Rule change proposals including issues relating to readability of the Rules, errors, use of language, and updates to relevant Australian Standards.

In the Rule change proposal, NEMMCO states that it identified the following issues/improvements:

- Clause 7.2.1(1):
  - The current wording contains duplication between sub clause (1) and (3) in reference to Chapter 7 that could be removed.

- Clause 7.2.3(a):
  - Clause 7.2.3(a) needs to be made subject to Rules clause 7.2.4 to address joint metering installation requirements in a manner that is consistent with clause 7.2.2(a).
- Clause 7.8.1 (a) & (b)
  - Industry considered the terminology used to describe the security of metering installations outdated. The use of the terms such as seals and devices is based on historical metering security practices, and do not reflect accurately the wider security means now available or acceptable. An amendment is required to recognise these differences.
- Table S7.2.3.1 - Item 1
  - The Australian Standard 1284.1 referenced within this clause has been superseded and as a result the reference requires updating.
  - Schedule S7.2.5 The Australian and International Standards referenced within this Schedule have been superseded and as a result the references require updating.

In the Rule change proposal, NEMMCO proposes the following improvements:

- Clause 7.2.1 (1)
  - Reword the sub clause to improve readability and remove redundancy.
- Clause 7.2.3 (a)
  - It is proposed to amend this clause to include "Subject to clause 7.2.4, the…".
  - The provision is subject to the same conditions as clause 7.2.2 and the amendment improves clarity relating to joint (shared) metering installations.
- Clause 7.8.1 (a) & (b)
  - Update the heading to read "Security of metering installations", to align with terminology used in section paragraphs.
  - Amend terminology in paragraphs (a) and (b) to more accurately reflect industry practice for the security of a metering installation.
- Table S7.2.3.1 - Item 1
  - Correct the reference to Australian Standards.
- Schedule S7.2.5
  - Correct the references to Australian and International Standards."

NEMMCO states that the collective purpose of these proposed Rule changes is to clarify and improve the accuracy of the expressed requirements. NEMMCO states that ambiguity or errors in the Rules introduces increased compliance risk to service providers and NEM participants.

NEMMCO states that the correction of errors and improved readability will improve industry understanding of the Rules, and make the operation of NEM processes and services less costly, and therefore add to efficiency.

NEMMCO also states that better understanding the Rules will reduce regulatory risk, which will reduce the need to factor higher costs into pricing and investment decisions to the ultimate benefit of consumers.

4.26.2 Views in submissions

Ergon states in relation to clause 7.2.3(a):

> "Ergon Energy proposes that this clause be amended to clarify that its operation is also subject to an election by a Market Participant under clause 7.2.2. That is:
>
> "(a) Subject to clause 7.2.2 and 7.2.4…"." [130]

Origin Energy states in relation to Clause 7.8.1:

> "As the Local Retailer carries the financial risk of energy losses associated with faulty or unreliable security devices the security mechanisms accepted by NEMMCO should also be ratified by the Local Retailers." [131]

4.26.3 Commission's considerations

The policy intent of the proposed changes are supported. The Commission considers editorial changes that correct errors and improve the understanding of the Rules are appropriate. The Commission has also made editorial amendments identified during its analysis of the proposal and in response to submissions.

4.26.4 Assessment of the NEM Objective

The Commission considers that the Rule change proposal seeks to correct minor errors and improve the readability of the Chapter 7. The Commission considers that this achieves the objectives of clarifying the Rules relating to metrology and makes them easier to understand. The Commission is therefore satisfied that this Rule change proposal promotes the NEM objective.

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[130] Ergon submission, p.10.

[131] Origin submission, p.2.

4.26.5 Differences between the Draft Rule and the proposed Rule

The Commission has made various editorial changes as identified by NEMMCO, submissions and the Commission's own analysis.

4.27 Savings and transitional provisions

The Commission has included a number of savings and transitional arrangements in Chapter 11 of the Draft Rule that are required to implement the Rule. These amendments largely relate to the integration of first tier metering installations into Chapter 7 of the Rules where some of the amendments have been proposed by NEMMCO. The amendments are identified below.

- Metering installations for non-market generating units that met the applicable jurisdictional requirements as identified in the Metrology Procedure for that installation on 30 June 2008 and continue to comply with those requirements, are taken to satisfy the requirements for metering installations for non-market generating units under the Rules (clause 7.3.7). A requirement has also been included that the applicable jurisdictional requirements be identified in the Metrology Procedure so the obligations are transparent for both the party required to comply and the party required to enforce compliance. The Commission seeks feedback on the 30 June 2008 date;

- In relation to first tier load metering installations, similar transitional arrangements to those proposed for metering installations for non-market generating units have been included. First tier load metering installations that met the applicable jurisdictional requirements on 30 June 2008 and continue to comply with those requirements, are taken to satisfy the requirements for first tier load metering installations. A requirement for the applicable jurisdictional requirements to be identified in the Metrology Procedure has been included in the interests of transparency and to facilitate efficient compliance monitoring. The Commission seeks comments on the appropriateness of the 30 June 2008 date;

- Transitional arrangements have been included for particular first tier load metering installations in Victoria. These arrangements relate to first tier load metering installations that have a type 5 or type 6 metering installation and the Market Participant is the responsible person for the installation. The objective of the provisions is to maintain the status quo in Victoria for these installations;

- The Minimalist Transitional Approach in Queensland as proposed by NEMMCO has been accepted by the Commission and

- Provisions have been included to ensure that any action NEMMCO takes to update the Metrology Procedure for the purposes of the Rule but prior to the Rule commencing operation are taken to satisfy the requirements of the Rule. If NEMMCO undertakes the amendment of the Metrology Procedure in accordance with the Rules, NEMMCO's actions will be valid. NEMMCO is required to update the Metrology Procedure by 30 June 2008, which is consistent with the timeframe for NEMMCO incorporating data validation, estimation and substitution procedures into the Metrology Procedure.