

11 December 2007



Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Sir / Madam

Integration of NEM Metrology Requirements

ENERGEX welcomes the opportunity to respond to the Australian Energy Market Commission's draft *National Electricity Amendment (Integration of NEM Metrology Requirements) Rule 2007* and draft Determination.

ENERGEX supports the objective of the draft Rule to harmonise metrology requirements for first tier connection points across the participating jurisdictions and the move towards a more efficient and transparent national regulatory framework for metering.

Should you have any queries regarding the submission please do not hesitate to contact David Turner – Manager Engineering and Compliance on (07) 3407 5460.

Yours sincerely

A handwritten signature in black ink, appearing to read "L. Dwyer".

Louise Dwyer
Group Manager Regulatory Affairs

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ENERGEX Limited
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**RESPONSE TO THE
DRAFT NATIONAL ELECTRICITY
AMENDMENT
(INTEGRATION OF NEM METROLOGY
REQUIREMENTS) RULE 2007**

**ENERGEX LIMITED
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13 December 2007



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1. INTRODUCTION

The draft *National Electricity Amendment (Integration of NEM Metrology Requirements) Rule 2007* (draft Rule), released by the Australian Energy Market Commission on 18 October 2007, seeks to:

- Incorporate and harmonise metrology requirements for first tier connection points, which are currently under the responsibility of individual participating jurisdictions, within the NEM metrology framework;
- Harmonise current jurisdictional metrology requirements for first tier connection points with existing requirements for second tier connection points, 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.

In the draft Rule Determination, the Commission sought feedback on a number of policy issues. These issues are:

- The appropriate date for grandfathering of first tier metering installations. And also whether there should be a transitional period for those installations that do not meet the jurisdictional or Rule requirements (Rule proposal No 2);
- 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);
- Losses between the connection point and metering point and the proposed methodology for ascertaining these losses (Rule proposal No 6);
- 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 (Rule proposal No 7);
- Whether the phrase 'reference / calibrated equipment' should relate to all test devices or only to 'reference standards' (Rule proposal No 21).

ENERGEX Limited (ENERGEX) has provided comments and feedback on the proposed Rule changes in the sections below.

In summary, ENERGEX supports the objectives of the draft Rule to reduce the number of regulatory instruments applying to metrology and the regulatory risk of non-compliance for participants that operate across jurisdictions. The integration of metrology requirements will assist the move towards a more efficient and transparent national regulatory framework for metering.

2. COMMENTS ON RULE CHANGE PROPOSALS

Proposal Number	Overview of Proposal	Comments
1	<p>The draft Rule Determination states that NEMMCO proposes to amend clause 7.1.1 to provide for the application of Chapter 7 to be in relation to Registered Participants, metering providers and NEMMCO.</p> <p>Comments are sought as to whether metering installations that are compliant with the current standards as of 30 June 2008 should be grandfathered.</p>	<p>Clause 7.1.1 as it is now drafted contains no reference to the role of NEMMCO with respect to the provision and management of metering within the NEM.</p>
2	<p>The Commission noted 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.</p> <p>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.</p>	<p>ENERGEX believes that the 30 June 2008 is an appropriate date for grandfathering of first tier metering installations.</p> <p>ENERGEX would argue that the final versions of the jurisdictional metrology procedures available on the NEMMCO website should be sufficient for grandfathering purposes rather than including all the jurisdictional requirements into the metrology procedure. This will avoid making the metrology procedure too cumbersome. As such, clause 11.X.3(c) in the draft Rules should be amended to reflect that jurisdictional requirements must be made available on the NEMMCO website.</p>
3	<p>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. The LNSP is responsible for types 5 and 6 metering installations on first tier loads in all NEM jurisdictions besides Victoria and South Australia.</p>	<p>ENERGEX believes that the grandfathering provision applying to the Victorian jurisdiction in relation to a Market Participant other than the LNSP being the responsible person for a type 5 or 6 metering installation should have an end date of 5 years except that an earlier customer transfer should result in the reversion of the responsible person to the LNSP.</p>

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4	<p>The Commission has decided to adopt transitional arrangements for Victoria in relation to 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.</p> <p>The Commission is also seeking comments as to whether an end date should be included in the Rule for the grandfathered provisions applying to Victoria.</p> <p>This Rule change proposal has sought the ability for end use customers to be able to alter a metering installation for any specific value added requirements. The Commission considers that there should be no limit on which parties should be able to request an alteration or enhancement and so the provision should apply to all jurisdictions and types.</p> <p>Currently, cost recovery for the alteration of first tier metrology installations is provided for in jurisdictional instruments. The Commission considers that cost recovery should be addressed in the Rules as the metering installations themselves would be regulated within the framework of the Rules.</p>	<p>With regards to clause 7.3.4(f) and an LNSP altering a type 5,6 or 7 metering installation to make it capable of remote acquisition, ENERGEX suggests the following amendment:</p> <p><i>“A Local Network Service Provider may only alter a metering installation in accordance with paragraph (e) to make it capable of remote acquisition where the provider decides that operational difficulties or operational efficiencies reasonably require the metering installation to be capable of remote acquisition.”</i></p> <p>The reduction of operational costs through efficiency measures that may result from the remote acquisition of strategic meters is seen as being in line with the NEM objectives.</p> <p>The proposed provision for the compensation to LNSPs for the alteration of metering installations under clause 7.3.6(g) does not cover the situation where the alteration does not cause a change in the classification of the metering</p>

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		<p>installation and therefore where the LNSP remains the responsible person but the alteration request from the FRMP does include facilities in addition to that which the LNSP would otherwise install in accordance with the metrology procedure.</p>
5	<p>The proposed Rule change will incorporate the data storage requirements for accumulation metering, as outlined in jurisdictional instruments, together with the data storage capacity requirements for interval metering as set out in the Rules.</p>	<p>No comment</p>
6	<p>NEMMCO proposed Rule change is to harmonise the management of losses between the connection point and metering point. NEMMCO stated that for low volume loads, these losses are part of distribution loss factors.</p> <p>The Commission decided not to adopt this Rule change proposal as part of the draft Rule due to the potential for significant and unnecessary costs being imposed on 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.</p>	<p>ENERGEX agrees with the Commission's decision not to adopt this Rule change as the market has survived to date without a definitive quantification of materiality of losses between the connection point and the metering point.</p> <p>However, clause 4.6.5 of the Commission's Draft Rule Determination is inconsistent with the statements made in clauses 4.6.3 and 4.6.4, which indicate that the Commission did not adopt the Rule change proposal.</p>
7	<p>Jurisdictional instruments have established metering standards for non-market generation that differ from NEM metering standards and are different between jurisdictions. The Rule change proposal does not address the metering standards to be applied to generating units operated by parties exempted from registering with NEMMCO.</p>	<p>With regards to proposed clause 7.3.1(i) (3), (4) and (5) there appears to be unnecessary repetition in the accuracy requirements for metering installation components. ENERGEX suggests that these three clauses be combined to read:</p>

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		<p>“(3) where a current transformer, a voltage transformer or a measurement element for reactive energy is installed, meet the requirements in Schedule 7.2 for:</p> <ul style="list-style-type: none"> (i) a type 3 metering installation; or (ii) the type of <i>metering installation</i> appropriate to that connection point” <p>It would also appear that the original intention was to have a minimum requirement of type 3 metering to reflect the low utilisation factors commonly associated with these types of non-market generators. Therefore clause 7.3.1(i)(3)(i) should read “a <i>minimum of a type 3 metering installation;</i>”</p> <p>With regards to clause 7.3.1(i) (9) it is not clear why the term ‘nameplate rating’ has been used while the term ‘an output’ has been used in sub-clauses (6), (7) and (8).</p>
8	<p>The current Rules for requested meters tests for second tier metering installations places obligations on NEMMCO to facilitate testing. This differs from the current jurisdictional requirements for first tier metering installations which place the obligation for a requested meter test on the LNSP.</p>	<p>The proposed clause 7.6.1, “Responsibility for testing”, provides for two types of testing in sub-clause (a):</p> <ul style="list-style-type: none"> • Testing in accordance with the requirements set out in Schedule 7.3, which forms part of an on-going asset management program. If any of these tests indicate a deviation from technical requirements the results should be provided to the relevant Registered Participant as soon as practical. If these tests indicate that the installation is Rules compliant then the current practice of making the results available to NEMMCO upon request or as part of an audit should continue. Reporting the large volume of all results to NEMMCO

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		<p>and the relevant Registered Participant would impose additional costs unnecessarily.</p> <ul style="list-style-type: none"> • Testing specifically requested by a Registered Participant or NEMMCO. This testing is of a relatively low volume and results should be provided to the relevant Registered Participant and NEMMCO.
9	<p>The proposed Rule change aims to establish record keeping requirements that are appropriate to the metrology related records. The role of collecting metering data will not always be the same person for all metering installations. The Commission has therefore 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 to collect metering data for settlements.</p>	<p>The reporting requirements of clause 7.6.1 do not appear to adequately differentiate between the two levels of testings.</p> <p>The proposed wording in clause 7.6.4(b) states that the responsible person must retain records and documentation. However, current market practice is that a responsible person engages a metering provider to provide, install and maintain metering installations. The metering provider then retains test records and relevant documentation on behalf of the responsible person.</p> <p>ENERGEX suggests that the wording originally proposed by NEMMCO would better reflect current market practice. ENERGET also believes that changes to clause 7.6.4(b) would reflect the obligations in clause 7.9.1(f) and (g).</p>
10	<p>The current requirements for metering data access 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.</p> <p>The Rule change proposal specifies entitlements to data, with further access management being supported by</p>	<p>Customer access to metering data from a metering installation raises a number of practical issues and increases the risk and liability of all parties including the customer. These issues include:</p> <ul style="list-style-type: none"> • Confidentiality of passwords and information collected • Conflict arising from the difference between data directly

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	<p>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.</p> <p>The proposed amendments are necessary to support a strong security policy and maintain confidence in market data.</p>	<p>from the metering installation verses settlements ready data</p> <ul style="list-style-type: none"> • Recovery of costs where third party access has caused data corruption or access lockout requiring site visits to investigate and rectify • Liability issues and consequential losses arising from the use by the customer of data that has become corrupted due to meter installation malfunctioning • Liability issues and consequential losses where third party access has corrupted data provided to the market whether deliberately through "hacking" or unintentionally <p>Metering Providers will be required to introduce additional operational processes with associated increased operational costs to:</p> <ul style="list-style-type: none"> • Control password access during churn to ensure that customers do not continue to have access to meters that are now registering another customer's load • Monitor more closely the integrity of metering installations to ensure that third party access is not deliberately or unintentionally changing meter "constants" or data • Monitor the impact of the third party access on the ability of Metering Providers to satisfy NEMMCO's SLA delivery requirements <p>Have these issues been considered? The Rules have no mechanism for placing responsibilities or obligations on customers covering the control of customer access to</p>

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		metering installation data.
11	<p>The proposed Rule change will harmonise the existing jurisdictional requirements for on-site metering testing and merge them into the Rules. The 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.</p>	No comment
12	<p>Data storage requirements for first tier type 5-7 metering installations exist within jurisdictional instruments. The 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.</p>	No comment
13	<p>The proposed Rule change aims to harmonise jurisdictional metrology requirements for metering installation malfunctions with existing NEM Metrology Procedure.</p>	No comment
14	<p>Currently jurisdictional instruments contain diverse approaches to the sealing of metering equipment and situations where a security seal has been broken. The Rule change proposes to harmonise jurisdictional metrology requirements and adopt an industry "best practice" approach for the sealing of metering equipment.</p>	No comment
15	<p>The Rules require 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.</p>	<p>The proposed Rule change assumes that un-metered type 7 metering installations are market loads. This is not the case for the majority of un-metered loads. NEMMCO was proposing that where they happen to be market loads, the metrology procedure must include appropriate arrangements. ENERGEX supports the original</p>

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	<p>NEMMCO proposes to incorporate in the Rules the principles applied in the Metrology Procedure and jurisdictional metering instrument (for first tier) so that the Rule provides a framework for determining connection points that may be unmetered.</p>	<p>NEMMCO proposal.</p>
16	<p>The purpose of the proposed Rule change is to remove duplicate requirements with regards to data validation, substitution and estimation and bring the obligations together in adjacent sub-clauses within Rules clause 7.9.4. 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.</p>	<p>No comment</p>
17	<p>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. This Rule change is to incorporate the Queensland Minimalist Transition Approach within the transitional provisions of Chapter 11 of the Rules.</p>	<p>No comment</p>
18	<p>The purpose of the proposed Rule change is to facilitate further efficiencies in the retail transfer process at lower energy volumes through the recognition of standard terms and conditions in the Rules for the LNSP responsible person arrangements for type 5-7 metering installations.</p>	<p>No comment</p>
19	<p>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. The proposal provides NEMMCO and industry with a clear understanding of the allocation of</p>	<p>No comment</p>

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20	<p>responsibilities.</p> <p>The proposed Rule change reflects updates to Australian and International Standards and consolidates provisions in the Rules for general design standards and requirements for meters and new instrument transformers.</p>	No comment
21	<p>The purpose of the proposed Rule change is to recognise the certification of overseas testing laboratories which are appropriately accredited. The 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.</p>	<p>The reference to ISO/IEC Guide 25 "General Requirements for the Competence of Calibration and Testing Laboratories" in Schedule S7.4.3(b)(6) should be changed to either:</p> <ul style="list-style-type: none"> • AS ISO / IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories" or • ISO "Guide to the Expression of Uncertainty in Measurement" as used in schedule S7.3.2(c) <p>With respect to Ergon's comments, Metering Providers would need to retain evidence demonstrating that all reference / calibration equipment had current calibration status traceable to national standards maintained by the National Measurements Institute.</p>
22	<p>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 by restricting the allowable timeframes.</p> <p>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.</p>	No comment

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23	<p>The Rule change proposal addresses issues raised by the Metering Technology Working Group in relation to the current Schedule 7.2 of the Rules (accuracy tables). It is proposed 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.</p>	<p>ENERGEX questions whether there is a mistake in the values recorded. That is:</p> <ul style="list-style-type: none"> the value for the accuracy of the active energy at 50% load and 0.5 lagging power factor in Table S7.2.3.2 for Type 1 installations has been changed from NEMMCO's proposed value of 0.7% to 0.75% with all other values in the table remaining as proposed. the value of the reactive energy at 10% load and 0.866 lagging power factor in Table S7.2.3.4 for Type 3 installations has been changed from NEMMCO's proposed value of 5.0% to 4.0% with all other values in the table remaining as proposed.
24	<p>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. It is proposed to amalgamate the requirements into a single table.</p>	No comment
25	<p>The current provisions of the Rules (clause 7.6.1(c)) requires NEMMCO to check the test results of every meter tested by the responsible person. While this might have been possible at the commencement of the market, it is now impractical and considered unnecessary, provided sufficient sample checking of test results is undertaken. NEMMCO proposes to vary the clause to put in place a more practical approach to the audit of meter tests.</p>	No comment
26	<p>The proposed Rule change is in relation to editorial changes within Chapter 7 of the Rules.</p>	No comment