# SP AusNet Submission Proposed National Electricity Amendment (Integration of NEM Metrology Requirements) Rule 2007



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SP AusNet submits these comments to the AEMC in response to the Proposed National Electricity Amendment (Integration of NEM Metrology Requirements) Rule 2007.

The submission consists of two parts:

- general comments regarding the amendment and some matters for AEMC consideration as part
  of its to the consultation process for this Rule change, and
- comments arising from our consideration of specific Draft Rule provisions.

#### A General Comments

### 1 SP AusNet broad support

SP AusNet supports the concept of the current jurisdictional first tier metrology (as currently defined for Victoria in the Electricity Customer Metering Code) being replaced by national arrangements by the broadening of the scope of Chapter 7 of the Rules (and the National Metrology Procedure) to include first tier metering.

We also generally support the range of other matters covered in this proposed Rules amendment.

In this submission we have therefore not specifically stated our support for each revision individually but rather have only made comment where we have identified concerns.

#### 2 Jurisdictional documents

As part of the package of changes proposed to Chapter 7 it is essential that "corresponding" changes are made to the National Metrology Procedure. NEMMCO is well advanced with the drafting of these changes in conjunction with industry and we understand that NEMMCO intends to begin consultation shortly so that the operation of Chapter 7 and the activation of the National Metrology Procedure will be synchronised.

However it should be noted that the other key component of the changes required is to the Jurisdictional metrology documents (in Victoria the Electricity Customer Metering Code). NEMMCO and industry have considered these documents as part of the drafting of the Chapter 7 and Metrology Procedure changes, and have prepared recommendations on the necessary amendments to these instruments.

## 3 Outstanding Chapter 7 issues

In the 2006 Metrology Rules changes to Chapter 7 SP AusNet detailed a number of Clauses of Chapter 7 which have issues of varying degrees of concern. These issues range from matters of terminology and logical layout of the Chapter, to more major concerns with respect to Clauses which do not reflect good and/or standard practise and in some cases do not provide the desired support for obligations which are included in subsidiary Procedures.

This submission includes comments on some of these outstanding matters where they impact on Clauses proposed for revision under this package of changes. We acknowledge that the remainder are out of scope for this change package, although we believe they should remain open.

## B SP AusNet Comments on Specific Clauses

We have submitted our detailed comments on specific clauses in the form of the following table to simplify the AEMC's work in analysing our submission and the wording changes we have suggested.

We have categorised these comments as follows:

- Only of minor impact on clarity and understanding. Generally wording, typos, incorrect italics, etc

  No business impact
- Moderate impact or risk of potential impact. Range from an internal inconsistency in the Rules which may have the potential for lack of clarity and interpretational issues, to matters which are unclear to the point of not being consistent with desired or benchmark practice. Some business impact possible to likely.
- High impact or risk of potential impact. Matters of serious concern with respect to regulatory uncertainty and/or strong potential to impact current practice. Includes matters which appear counter to fundamental regulatory regime and documentation principles.

  Business impact likely and could be significant.

SP AusNet Item No	Clause	Impact L/M/H	Issue/concern	Suggested Wording
1.	7.2.1	L	Wording only: italics note correctly used.  Metrology procedure is defined term and should be italicised.  We have identified a number of instances where italics have not been applied or have been applied incorrectly. We recommend however that a more rigorous review of this aspect is done.  Note we have not been rigorous ourselves in applying italics in our Suggested Wording.	7.2.1 Responsible person The responsible person is the person responsible for the provision, installation and maintenance of a metering installation in accordance with: (1) Chapter 7; and (2) the metrology procedure metrology procedure
2.	7.2.2	Н	It is appropriate that the determination of 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 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 160MWh in Victoria, it is wrong that this vital qualification on the broad requirements of the Rules with respect to	7.2.2 Responsibility of the Market Participant  (a) Subject to clause 7.2.4, a Market Participant may elect to be the responsible person for:  (1) a type 1, 2, 3 or 4 metering installation; or  (2) another type of metering installation in accordance with the metrology procedure for first tier loads.  We understand that there are restrictions on these type of jurisdictional differences being defined in the body of Chapter 7. If this is the case we suggest that an alternative would be to define these ongoing "exceptions" (ie these "savings") within Chapter 11 "Savings and Transitional Rules".

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			Responsible Person allocation for first tier loads is left to the Metrology Procedure.	There are various arrangements recognised in Chapter 11 which are to continue in specific circumstances and/or for specific Participants despite the arrangements being inconsistent with requirements in the associated primary chapters. This would appear to be very analogous to the situation with the arrangements for type 5 and 6 metering for first tier customers greater than 160MWH pa in Victorian and for type 5 metering for first tier customers in South Australia.
3.	7.2.2 (b)	L	If under clause 7.2.4 the installation is a "shared metering installation" then a party other than the Market Participant (the Retailer) may be the RP.  If addition is not made to current wording this exception could be overlooked.	<ul> <li>(b) A Market Participant is the responsible person for a type 1, 2, 3 or 4 metering installation, or in accordance with the metrology procedure for first tier loads if:</li> <li>(3) the metering point is part of a shared joint metering installation and under clause 7.2.4 it has been agreed the Market Participant is the responsible person or the Market Participant is nominated by NEMMCO.</li> </ul>
4.	7.2.3 (a)	M	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.	7.2.3 Responsibility of the Local Network Service Provider  (a) Subject to clause 7.2.4, The Local Network Service Provider is the responsible person for:
5.	7.2.3 (ca) and (d)	L	Wording only: "a" missing	(ca) The <i>Local Network Service Provider</i> may provide <i>Market Participants</i> with a standard set of

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				terms and conditions on which it will agree to act as the <i>responsible person</i> for <u>a</u> type 5, 6 or 7 <i>metering installation</i> .  (d) Wherefor <u>a</u> type 5, 6 or 7 <i>metering installation</i>
6.	7.2.3 (g)	M	It would seem inappropriate there should be a 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.	(g) A <i>Market Participant</i> must, in relation to an offer made under paragraphs (ca) or (e): (1) accept the offer; or (2) dispute the offer in accordance with rule 8.2 or appeal to the AER.
7.	7.2.3 (g)	M	As previously pointed out by SP AusNet the concept of a acceptance or dispute of an offer made under a standard set of terms and conditions before the work is carried out is counter to the sequence of the B2B processes which apply to >95% of new connections. There is no opportunity of disputing as the Service Order transaction assumes that the Retailer has accepted the standard set of terms and conditions.  We have not suggested specific changes in this submission to make the Rules more consistent with the B2B Processes as this was ruled as "out of scope" in the 2006 Chapter 7 consultation. As discussed in Part A of this submission we will raise the need for Rules change through the industry process.	

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8.	7.2.3 (i)	M	The essential difference between the process in (b) and (c), and that in (d) to (h) is that the latter assumes a fair and reasonable offer must be made, whereas the offer in the former is on a commercial basis.  The Metrology Procedure change associated with this Rules change proposal as it is currently drafted by NEMMCO does not however 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.  Note: Further for Victoria it is mandatory under the LNSP's access arrangements for them to include in their regulated standard set of terms and conditions a price for such situations. We cannot make a statement re the SA situation but this also could be a regulated service. As these are currently the only two acceptations to the general rule, if the SA situation is also one of a regulated offer then an option would be to remove this clause.	Remove clause (depending on the SA situation) or NEMMCO must ensure that the basis of the offer is included under the Metrology Procedure revisions.
9.	7.2.3 (j)	M	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 1-4.	All metering installations

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10.	7.2.3 (j)	M	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.	Add wording for avoidance of doubt re the offer <u>not</u> being subject to fair and reasonable testing.
11.	7.2.3 (j)	M	The current wording could be taken incorrectly to mean that Market Participant would install the non standard metering installation.	Subject to clause 7.2.5(d), where the <i>Market</i> Participant cannot be the responsible person for a metering installation, the Local Network Service  Provider must not unreasonably refuse withhold its consent to a Market Participant's request for the Local Network Service Provider to install a metering installation of a type that is different from that already installed, or that provides facilities in addition to that which the Local Network Service Provider otherwise would install, in accordance with the metrology procedure
12.	7.2.4	M	The yet to be finalised NEMMCO consultation regarding the basic rules re Embedded Networks included a proposal regarding the determination of the Responsible Person for metering points within an Embedded Network.	(b) Where more than one <i>Market Participant</i> uses a <i>metering installation</i> which is provided, installed and maintained by a person other than the <i>Local Network Service Provider</i> , they must agree Responsible Person arrangements that

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			The industry input, and the understood basis of the NEMMCO final determination, is that the Responsible Person will be determined on the basis of the "normal" Rules requirements ie Responsible Person for type 1-4 is chosen by the FRMP and for type 5,6 is the LNSP.	ensure meter data from the shared installation meets the requirements of the Rules and the Metrology Procedure.and notify NEMMCO as to which of them is the responsible person for that metering installation.
			However it is generally interpreted that the metering points within an Embedded Network without full market metering are actually "components" of a "shared" metering installation as data from all the metering points are required to ascertain the market load of those customer(s) without market metering.  Hence 7.2.4(b) and (c) as currently written are inconsistent with the soon to be issued Final Determination of the Embedded Network consultation. These clauses therefore need to be re-written to ensure that they do not conflict with the Embedded Network outcome.  We consider that the redefinition of the clause to remove the specific requirements for a single Responsible Person but giving NEMMCO discretion to establish a workable Responsible Person arrangements for a shared installation (which could involve the requirement for a single Responsible Person)_achieves the same meter data protection in the case of the small number of complicated shared metering installations.	(c) In the absence of such agreement, If NEMMCO consider that the arrangements under paragraph (b) will not ensure rigorous meter data requirements, NEMMCO may nominate Responsible Person arrangements including nominating one of the Market Participants to be the responsible person for that metering installation.

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13.	7.3.2	Н	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 re the adjusting of metering data for almost all installations. This is a obviously an unworkable requirement.	No specific wording suggested; refer notes re wording changes in the Issue/concern column.
			NEMMCO and the industry agreed that this correction for losses, and hence this agreement, was only required where the losses were material ie they were outside the range of normal installations for which the broad network DLFs 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 approved DLFs 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 analyse it is likely that the level of losses	

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			specified in the draft could easily be exceeded in a reasonably significant minority of customers' 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 <a href="Maximum Demand">Maximum Demand</a> 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 AS3000 wiring rules.	
			To date these requirements appear to have been deemed by industry and NEMMCO to generally be sufficient to ensure that the <u>average</u> 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.	

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			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 take action not based on a 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.	
14.	7.3.2	M	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.	Wording would depend on the approach ultimately agreed.

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15.	7.3.4A (c)	L	Incorrect reference	(c) Metering installations for non-market generating units that fail to meet the compliance standards detailed in clause (b) must be repaired or replaced in accordance with rule 7.2.4A(a) 7.3.4A (a).
16.	7.6.1 (bb)	L	Wording only: italics not correctly used.	(bb) Affected parties may witness the tests on request to the <i>responsible person</i> and the <i>responsible person</i> must give those affected parties 5 business days business days notice
17.	7.6.1 (e) and (f)	L	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.  Plus Wording only: italics not correctly used	(e) If the responsible person,,  NEMMCO must make the test results available to any Registered Participant registered against this connection point in NEMMCO's connection point connection point registration system:  (f) Where a Registered Participant has requested that the responsible person or NEMMCO arrange for the testing of a metering installation in accordance with in accordance with paragraph (b), the responsible person or NEMMCO (as the case may be) must provide the test results to other affected Registered Participant any Registered Participant registered against this connection

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				point in NEMMCO's connection point registration system as soon as practicable.
18.	7.6.1 (g)	M	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 a reference to 7.6A only).	Delete clause.
19.	7.6A (e)	M	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)	Delete clause.
20.	7.7	L	Wording only: incorrect font	
21.	7.7 (a)(7)	L	Wording only: incorrect word	(7) An Ombudsman is in accordance with clauses 7.7(d), (e) and (f); and
22.	7.8.4	L	Terminology and clarity issues  Plus Wording only: italics not correctly used	(b) If an on-site test of a <i>metering installation</i> requires the injection of current, the <i>responsible person</i> must ensure that the <i>energy data</i> stored in the <i>metering installation</i> is inspected and, if

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				necessary, that the <i>metering</i> <u>installation</u> database is altered in accordance with the <i>NEMMCO</i> validation, substitution and estimation procedures under the <i>meterology</i> procedure to ensure that the <i>metering</i> data in the <i>metering</i> <u>installation</u> database is not materially different from the <u>load</u> energy volumes flowing in the <u>connection</u> point <u>connection</u> point during the period of the test
23.	7.9.4 (ab)	L	Wording only: italics and caps not correctly used	(ab) The <i>responsible person</i> is responsible for the validation, substitution and estimation of <i>metering data</i> for type 5, type 6 and type 7 <i>metering installations</i> , which must be undertaken in accordance with the Metrology Procedure metrology procedure.
24.	7.11.2	M	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.	(ac) If a Local Network Service Provider, financially responsible Market Participant, or Metering Provider discovers that a seal protecting metering equipment has been broken, it must notify the responsible person within 5 business days.  (aca) Where a Metering Provider appointed by the Responsible Person discovers that a seal
			The need to report this to the Responsible Person where tamper is not suspected would appear to add	protecting metering equipment has been broken, and the Metering Provider has the delegated

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Item No			complication and costs without improving the security of installations.  The proposed wording does not reflect this practical process.  Plus the obligation on the Responsible Person should be to ensure actions generally not to carry out the actions.  Plus Terminology	authority of the Responsible Person, the Metering Provider may replace the seal when it is discovered without notice to the Responsible Person subject to meeting requirements of paragraph (af).  (ad) The responsible person must ensure that if the seal is not replaced by the Metering Provider under paragraph (aca) replace a broken seal is replaced on the first occasion the metering equipment is visited to take a reading after receiving notification that a seal has been broken, or within 100 days, whichever is the earlier.  (ae) The costs of replacing broken seals are to be borne:  (1) by the relevant Registered Market Participant if the seal was broken by its customer;  (2) by the Registered Participant if the seal was broken by the Registered Participant; or  (3) otherwise by the responsible person.  (af) If it appears that, as a result of or in connection with the breaking of a seal, the relevant metering equipment may no longer meet the relevant minimum standard, then the responsible person must ensure test the metering

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				equipment <u>is tested</u> .
25.	7.14.1((c)(7)(ii)	L	Incorrect reference	(ii) data estimation for the purposes of rule 7.117.11.1; and
26.	S7.2.3 Table 7.2.3.1	Н	We are unclear why the overall error figure for type 6 installations has been changes from 1.5% to 2.0% (and the error for type 5 has remained as 1.5%). There would appear to be no reference to this proposed change in the Proposed Changes Attachment A document.	
27.	S7.2.3 Table 7.2.3.1 Item 5	L	Consistent with the format "rules" in the remainder of Chapter 7 the paragraphs/clauses under Item 5 should each have an identifying number.  Plus Wording only: typo	Item 5: The following requirements apply in relation to type 7 metering installations:  (a) A type 7 metering installation applies to the condition where it has been determined by NEMMCO that a metering installation does not require a meter to measure the flow of electricity in a power conductor and accordingly there is a requirement to determine by other means the energy data that is deemed to flow in the power conductor. This classification condition will only be allowed for connection points where it is determined that:  (a1) The load pattern is predictable and for the purposes of market settlement can be

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				reasonably calculated by a relevant method set out in the metrology procedur procedure; and  (b2) It would not be cost effective to meter the connection point taking into account;  (i) the magnitude of the load; and  (ii) the connection arrangements.  (c)[Deleted]  (d)[Deleted]  (b) The metrology procedure must include arrangements for type 7 metering installations that have been classified as market loads.  (d) The initial use of a type 7 classification does
				not remove the requirement for these connection points to be metered at some future time.
28.	S7.2.3 Table 7.2.3.1 Item 5	Н	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.	A type 7 metering installation classification applies to the condition where it has been determined by NEMMCO that a category of metering installations does not require a meters to
			However we understand that NEMMCO will not ascertain whether <u>every</u> installation within the category meets the conditions. Hence although because of typical magnitude	measure the flow of electricity in a power conductor and accordingly there is a requirement to determine by other means the <i>energy data</i> that is deemed to flow in the power conductor.

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			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.	This does not preclude the <i>local network service</i> provider (or responsible person ?????) from determining for a specific instance of the category that the conditions in paragraphs (a)(1) and (a)(2) [new numbering suggested above] are not applicable and hence that a meter must be installed.
29.		M	The conditions for classification by NEMMCO should not necessarily be both the magnitude of the <i>load;</i> and the connection arrangements. An installation's connections 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.	(b2) It would not be cost effective to meter the <i>connection point</i> taking into account; (i) the magnitude of the <i>load; and/or</i> (ii) the connection arrangements.
30.		L	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.	No specific wording proposed, just the need for AEMC recognition that the proposed Rules changes do not necessarily constitute the full Rules basis of a workable un metered supply process.
			<ul> <li>Two examples of aspects which might require Rules documentation are:</li> <li>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</li> </ul>	

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			<ul> <li>classification under S7.3.2.1 Item 5 (d) [new numbering] to be subject to obligatory consultation??</li> <li>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)</li> </ul>	
31	. S7.2.6.1(f) and (g)	L	Wording only: duplicated words_in both clauses	f) <i>Meters</i> must meet the relevant requirements of AS 1284:1, AS 62053.21, AS 62053.22, and AS 62052.11; and must have a valid pattern approval issued under the authority of the National Measurement Institute or, until relevant pattern approvals exist, a valid type test certificate. where no pattern approval exists.  (g) identical change
32	S7.3.1.(h)	L	We cannot understand the requirement for this clause; the general grandfathering of current first tier installations is in Clause S7.2.1 (c). There will be a number of ways these meters do not meet the requirements of this proposed Chapter 7 but this clause re testing uncertainty is the only one singled out for specific reference to grandfathering. In doing this it raises questions re the breadth of coverage of Clause S7.2.1 (c).	Remove clause.