METERING ICF PACKAGE CHANGES

PROCEDURE CONSULTATION

FIRST STAGE PARTICIPANT RESPONSE TEMPLATE

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1. Context

This template is to assist stakeholders in giving feedback about the changes detailed in the initial draft procedures associated with the Metering ICF Package Changes consultation.

The changes being proposed are because of NER rule changes which have occurred requiring changes to AEMO's Retail Electricity Market Procedures and the following proposed changes by proponents and AEMO to implement recommended process improvements.

2. MSATS Procedures: CATS

Section	Description	Participant Comments
2.4.(s)	Updated to include a new sub clause(s) for obligation on MDP to provide relationship mapping between Register ID and Datastream Suffix.	
2.9.(k)	Updated to include a different timeframe for cancelling an incomplete CR6800.	
4.3 Table 4-C	Updated 'Description' for Code 'BADPARTY' for current MC to object to change of MC for SMALL NMI's only in Victoria.	CitiPower Powercor supports the reintroduction of this objection code.
4.4 Table 4-D	Updated to reflect the current jurisdictional requirements for Small and Large customers.	

Section	Description	Participant Comments
13.3.6 Table 13-H	New entry related to objection code 'BADPARTY' for CR6300 and CR6301.	CitiPower Powercor supports the reintroduction of this objection code.

3. MSATS Procedures: WIGS

Section	Description	Participant Comments
Version	Updated to align version numbering with MSATS: CATS procedures	

4. Metrology Procedure: Part A

Section	Description	Participant Comments
12.5	Update to replace 'verification' with 'Validation'. Amend the section heading and introduction paragraph to better align with terminology used in SLP MP clause 4.2(b)	CitiPower Powercor note the objective of ICF19 is to better define which metering installations, in section 12.5 of the Metrology Procedure Part A, the obligation applies to and to set mandatory requirements for a specific sample testing methodology. We believe the proposed changes have resulted in exclusion of whole current Victorian AMI metering installations (on the basis they are

Section	Description	Participant Comments
		'remotely read') from accessing clause 12.5 of this procedure. It is unclear, to our business, why reference to type 5 metering has been removed and replaced with terminology relating to 'manually read metering installations' but at the same time still retaining the inclusion of 'remotely read' whole current small customer metering installations (i.e. allowance for both remotely read and manually min spec meters but not remotely read AMI meters). As Vic AMI metering installations are not *small customer metering installations*, as defined by the NER, proposed changes will result in them all being validated as per the requirements of Service Level Procedure Metering Provider (SLP MP) Services clause 4.2(a)(ii) (i.e. all of them on commissioning). CitiPower Powercor do not agree with the decision to exclude whole current Vic AMI meters from the sample based verification/validation processes laid out in section 12.5 of the Metrology Procedure Part A, nor the sample based verification/validation processes laid out in clause 4.2 (a) (iii) of the SLP Metering Provider Services. The proposed obligation to data to validate (verify) 'all Vic AMI meters' at time of commissioning (i.e. all new and replacement meters) lifts the data verification volumes to approximately 30k p.a., well in excess of the approximately 2k p.a. undertaken currently across all both networks under the existing 12.5 sampling regime. Sample metrology testing and sample verification testing, have been accepted approaches for all whole current 'mass market' metering assets, there is no justification to now exclude the Vic AMI meters from

Section	Description	Participant Comments
		those testing regimes. Our business does not consider that there is any requirement identified in the NER, that should require AEMO to now cause 'remotely read' whole current Vic AMI meters to be treated differently to whole current small customer metering installations, or in fact different to a manually read Vic AMI meters in terms of performing sample verification/validations. **NER Ch 10 Glossary** **small customer metering installation** A metering installation in respect of the connection point of a small customer which meets the minimum services specification or which is required to meet the minimum services specification under clause 7.8.3(a), clause 7.8.4(c) or clause 7.8.4(h)(2). **NER 7.8.3 Small customer metering installations** (b) *AEMO* must establish, maintain and *publish* procedures relating to the *minimum services specification* that set out for each service specified in the *minimum service specification*: (1) minimum service levels, including service availability and completion timeframes; and (2) minimum standards, including completion rates against the service levels and accuracy requirements. (c) The procedures established under paragraph (b) may also include technical requirements of one or more of the

Section	Description	Participant Comments
		services specified in the *minimum services specification*. **MSATS CATS Procedures** VIC AMI a relevant *metering installation* as defined in clause 9.9C of the NER. We also believe the prposed changes are inconsistent with the NER as defined within Victoria under the Victorian Government NEVA Order in Council: **National Electricity (Victoria) Act 2005** **2017 MINISTERIAL ORDER UNDER SECTION 16BA** **relevant metering installation**, in relation to a *Local Network Service Provider*, means a *metering installation* for a small customer connected to the Provider's network but does not include a *metering installation* of that kind that: (a) was installed before 1 July 2009 and in respect of which, as at that date, the *financially responsible Market Participant* was the responsible person; or (b) was installed on or after 1 July 2009, by a *financially responsible Market Participant* as part of the *financially responsible Market Participant's* ordinary replacement cycle of *metering installations* of that kind and in respect of which the *financially responsible Market Participant* was, as at 1 July 2009, the responsible person; or (c) is a type 1 metering installation; or (d) is a type 2 metering installation; or

Section	Description	Participant Comments
		(e) is a type 3 metering installation; or (f) is a type 7 metering installation; or (g) is located at a high voltage connection point. **small customer** means a *retail customer* with an annual volume consumption of electricity of less than 160 MWh. **Victorian Specifications** means the Functionality Specification and the Service Levels Specification within the meaning of the AMI (Obligations to Install Meters) Order. **volume consumption** means the volume of energy consumed by a customer at the relevant *connection point* calculated in accordance with clause 3.5(d) of the metrology procedure Part A as amended from time to time. (b) In this Chapter 7, a relevant metering installation that, but for it being capable of remote acquisition, would be a type 5 or type 6 metering installation is taken to be a type 5 or type 6 metering installation respectively. (c) The minimum services specifications referred to in this Chapter 7 do not apply in Victoria in respect of relevant metering installations. Schedule 7.5 does not apply in Victoria in respect of relevant metering installations. The Victorian Specifications apply in Victoria in respect of relevant metering installations. (e) In this Chapter 7, for the purposes of clause 7.8.9(b) and (c), a relevant metering installation with a complying remotely read interval meter is a type 5 metering installation that has been altered to make it capable of remote acquisition.'. Remotely read whole current Vic AMI meters have no greater data

Section	Description	Participant Comments
		accuracy risk than remotely read whole current min spec meters (in fact it would be argued that due to the homogenous mesh radio network the risk of data transposition due to sim card ID etc is actually far less), are applied to the same <160MWh size of small customers and have the same meter class accuracy. Neither does the mesh create a greater risk for a remotely read Vic AMI meter than a Vic AMI meter being operated as a manually read interval meter (type 5). CitiPower Powercor therefore recommend the following amendments be incorporated in this section: **12.5. Validation of Metering Data for whole current Small Customer Metering Installations, whole current Vic AMI installations, Manually Read Metering Installations and Type 7 Metering Installations** To facilitate the Validation of metering data for whole current small customer metering installations, whole current Vic AMI installations, manually read metering installations and type 7 metering installations: (i) Unless the MC has developed an asset management strategy that meets the intent of this clause and is approved by AEMO, the validations must be in accordance with this clause. (ii) (a) Each MC must ensure that a Sample Test Plan is established and maintained in accordance with *Australian Standards* "AS 1199: Sampling procedures for inspection by attributes – Sampling schemes indexed by Acceptance Quality Limit (AQL) for lot-by-lot inspection". (b) Each MC must ensure that the Sample Test Plan is set at General Inspection Level II and initially selected to be a normal inspection sample

Section	Description	Participant Comments
		size using an AQL of 1.5, or Special Inspection Level S4 with AQL 1.0. * Following on from the above proposed changes we recommend clause 4.2 of the SLP Meter Provider Services be updated as follows: **4.2. Metering Data Validation Requirements** (a) Where a *metering installation* has *remote acquisition* capability: (iii) For whole current *small customer metering installations*, and whole current Vic AMI installations, that *metering data* is verified in accordance with section 12.5 of Metrology Procedure: Part A; or (iv) otherwise accordance with the MC asset management strategy that meets the intent of this clause and is approved by AEMO.

5. Metrology Procedure: Part B

Section	Description	Participant Comments
2.4	Update to remove 'N' Metering Data Quality Flag	

Section	Description	Participant Comments
13.2.2(a)(v)	Update to remove 'End User Details' from Inventory Table. Reverse 5MS/GS changes.	
13.3.2(a)(iii)	Update to remove 'End User Details' from Inventory Table. Reverse 5MS/GS changes.	
13.5.2(a)(v)	Update to remove 'End User Details' from Inventory Table. Reverse 5MS/GS changes.	

6. Service Level Procedure Meter Provider Services

Section	Description	Participant Comments
4.2(a)(iii) & (b)	Update to replace 'verification' with 'Validation'.	As stated in the consultation "AEMO has reviewed the usage of the terms **'validation'** and **'verification'** across the SLP MP Services and Metrology Procedure Part A. To eliminate confusion for the purpose of complying with Section 4.2 of the SLP MP Services, replaced 'verified' with 'Validated', 'verify' with 'Validate' and 'verification' with 'Validation' in Section 12.5 of Metrology Procedure Part A and Section 4.2 of the SLP MP. AEMO defines 'Validated' and 'Validation' in the Retail Electricity Market Procedures – Glossary and Framework. The term 'verification' refers to a one-off task to be performed by a Metering Provider Category B (MPB). However, the term 'validation' is an ongoing task of validating the metering data and normally is undertaken by a Metering Data Provider (MDP)". The requirements for verification of data have been prescribed under Section 12.5 of Metrology Procedure Part A, which potentially results in affected MPBs and MDPs in misinterpretation of the intention of the clause. CitiPower Powercor notes the objective of ICF-020 is to eliminate confusion between the terms 'validation' and 'verification' within the various metrology and service level procedures. However, we don't believe the confusion has been eliminated by removing all references to 'verification' and replacing it with 'validation'. In doing so, we believe the obligation has become

		inconsistent with the specific requirements of the NER. Previously, the activity associated with type 1 to 4 RRIM's was known as 'data commissioning' but it is now more correctly titled 'Verification' in the NER. 'Data commissioning' of each the Victorian AMI meters was considered onerous at the time of the AMI rollout and subsequently the Victorian Metrology Procedure and later Metrology Procedure Part A clause 12.5 was developed to allow for a sampling verification process to be applied to whole current mass market meters installed on small customers. The National Electricity Rules are quite clear as to the activity undertaken by the MPB in terms of undertaking 'Verification' at time of commissioning and at times of inspections and testing. **S7.2.3 Capabilities of Metering Providers for metering installations types 1, 2, 3, 4 and 4A** (e) **Verification** of *metering data* and *check metering data*, as follows: (1) **on commissioning** *metering data*, **verification** of all readings, constraints (adjustments) and multipliers to be used for converting raw data to consumption data; and (2) **on inspection, testing** and/or maintenance, **verification** that readings, constants and multipliers are

		correct by direct conversion of *meter* readings and check against the *metering database*. The intent of the NER is for Verification of 'all readings' to be taken to include Display and Index Registers and Interval Data (*Energy Data*). The National Electricity Rules are also prescriptive as to the activity undertaken by the MDP in terms of undertaking 'Verification' at time of commissioning (in conjunction with the MP) (see S7.3.3 (f) (1) and that this is separate to the processes of ongoing 'Validation' as part of the collection, processing and delivery of *metering data* to the market (see 7.3.3 (f) (2). **S7.3.3 Capabilities of Metering Data Providers** (f) Systems for the processing of *metering data* including: (1) processes for the **verification** and **commissioning** of *metering data* and relevant *NMI Standing Data* pertaining to each *metering installation* into the *metering data services database*; (2) processes for **validation, substitution and estimation of *metering data*;** (3) processes for the storage, adjustment and aggregation of *metering data*; and (4) the secure storage of historical data.

		We believe, the intent of the NER is for 'Verification' and commissioning of *metering data* in (f) (1) is different to 'Validation' of *metering data* in (f) (2). CitiPower Powercor recommends that AEMO align its procedures and glossary definitions with the described activities of the MPB and the MDP as outlined in the NER Schedule S7.2.3 & S7.3.3 (extracts above) and adopt the amendments as proposed below (excluding other amendments proposed in relation to ICF_019). Additionally, the 'Verification' process is not performing 'Validation' for settlements ready data as defined in the NER Ch10: ***Settlements ready data*** *The metering data that has undergone a **validation** and substitution process by AEMO for the purpose of settlements and is held in the metering database.* The **Verification** processes in clause 12.5 of Metrology Procedure Part A and clause 4.2 of the SLP Meter Provision Services are not producing 'settlements ready data' and have not gone through the **Validation** processes laid down in the Metrology Process Part B sections 8 and 10. CitiPower Powercor recommends the following amendments: **Metrology Procedure Part A** The following are describing 'Verification' activities undertaken by the MPB in accordance with NER S7.2.3 (e) (i) & (ii)

		12.5. ~~Validation~~ Verification of Metering Data for whole current Small Customer Metering Installations, Manually Read Metering Installations and Type 7 Metering Installations To facilitate the ~~Validation~~ Verification of *metering data* for whole current *small customer metering installations*, manually read *metering installations* and type 7 *metering installations*: (c) A test sample is deemed to have passed the ~~Validation~~ Verification test when the *metering data* stored in the *metering data services database* is consistent with the *energy data* stored in the *metering installation*. If the *metering data* stored in the *metering data services database* does not match the energy data stored in the *metering installation*, then the test sample is deemed to have failed the ~~Validation~~ Verification test and must be rectified. (d) Each MC must ensure the following steps are taken after each round of ~~Validation~~ Verification: (i) If the Sample Test Plan passes the acceptance number (Ac) criteria at a normal inspection sample size, continue to test using the normal inspection sample size for the next round. (e) ~~Validation~~ Verification tests must be conducted in accordance with the Sample Test Plan, at least once every 12 months. **Service Level Procedure – Meter Provision Services** The following are describing "Verification" activities undertaken by the MPB (with the assistance of the MDP) in accordance with NER S7.2.3 (e) (i) & (ii) **4.2. Metering Data ~~Validation~~ Verification Requirements** The MP must develop, maintain and operate processes and procedures for the ~~Validation~~ Verification of *interval metering data*

		with the Metering Data Provider (MDP) upon the installation or alteration of that *metering installation*, which must include processes to ensure that: (ii) For a *metering installation* that is not a whole current *small customer metering installation*, the measured and stored *interval energy data* within the ***meter's*** buffer is ~~Validated~~ Verified with the *interval metering data* as remotely read and stored within the MDP's *metering data services database*; or (b) For manually read *metering installations*, *metering data* is **verified** in accordance with clause 12.5 of the Metrology Procedure: Part A; (c) Where ~~Validation~~ Verification has failed or cannot reasonably be undertaken, the MP must inform the MDP and the Metering Coordinator (MC) that the *metering installation* cannot be ~~Validation~~ Verified and undertake wiring checks which visibly verify correct connection and phase relationships of *voltage* and current circuits and also undertake one or more of the following alternative measurements and commissioning checks to enable the MC and MP to confirm that the *metering installation* complies with the NER: **Metrology Procedure Part B** The 'Validation' activities undertaken in accordance with NER 7.3.3 (f) (2) are addressed in sections 2, 7, 8 and 10 of the Metrology Procedure Part B. The following are describing 'Verification' activities undertaken by the MDP (in conjunction with the MPB) in accordance with NER S7.3.3 (f) (1) **9. ~~VALIDATION~~ VERIFICATION AS PART OF THE REGISTRATION PROCESS**

		9.1. ~~Validation~~ Verification of Metering Installations – General Requirements MDPs must confirm that the *NMI* is registered in MSATS after any installation or change to a *metering installation* prior to the distribution of any *interval metering data* to AEMO or *Registered Participants* for the purposes of *settlements*. **9.2. ~~Validation~~ Verification of Metering Installations with Remote Acquisition of Metering Data** MDPs must carry out the following ~~Validations~~ Verifications after any installation or change to a *metering installation* with *remote acquisition* of *metering data* prior to the distribution of any *interval metering data* to AEMO or *Registered Participants* for the purposes of *settlements*: **9.3. ~~Validation~~ Verification for Manually Read Interval Metering Installations** The MDP must carry out the following ~~Validations~~ Verifications in conjunction with the MP for manually read interval *metering installations* after any changes to a *metering installation* prior to the distribution of any *interval metering data* to AEMO or *Registered Participants* for the purposes of *settlements*: **9.4. ~~Validation~~ Verification for Metering Installations with Accumulated Metering Data** **9.5. ~~Validation~~ Verification for Metering Installations with Calculated Metering Data** MDPs must ~~Validate~~ Verify the *calculated metering data* on registration of all *metering installations* to ~~verify~~ ensure that the Inventory Tables, Load Tables

		and On/Off Tables are complete and correct for the specifics of the *metering installation*. AEMO definitions of 'Validated' and 'Validation' are listed below. Retail Electricity Market Procedures – Glossary and Framework ***Validated*** *Metering data* that has passed Validation. ***Validation*** A process to test the veracity and integrity of *metering data*. CitiPower Powercor recommends that this issue would be better resolved defining 'Verification'. Additionally, a definition for 'Verification' and 'Verified' be created that is consistent with the activities described in the NER S7.2.3 and NER S7.3.3. We recommend the following definitions be considered for use in Retail Electricity Market Procedures – Glossary and Framework: **Validation** is an ongoing process to determine the quality of *'Actual'* meter data to be sent to the market, or where *Validation* fails, to cause it to be '*Substituted'*. **Verification** is a one off process (by data commissioning at time of installation or via an approved sampling program) to confirm that the *energy data* stored in the *metering installation* (which is the prime facia data for the market) is ensured to be the same as the *meter data* recorded in the *metering data services database* following the

		collection or reading process and inclusive of any scaling constants (i.e. it is still yet to be 'validated').
4.2(c)(ii) & (d)	Update to replace 'verify' with 'Validate'.	See response to the above.
4.4	Update to replace 'verify' with 'confirm'.	See response to the above.

7. NEM RoLR Processes Part A and Part B

Section	Description	Participant Comments
17.2(a)	Updated to change the section from 19 to 16.	
17.2(b)	Updated to include 'AEMO must' in the sub clause.	
17.2(c)	Include new sub clause to remove MSATS access for the Failed Retailer.	

8. Meter Data File Format Specification

Section	Description	Participant Comments
3.3.1(b)	Updated to remove the sub clause (b).	
4.4	Updated to remove the text in Definition column related to Meter Data Quality Flag 'N' against the Field InternalValue1….InternalValueN Updated to remove 'N' from Allowed Values against the Fields QualityMethod and ReasonCode Updated to remove the text in Definition column related to Quality Flag 'N' against Field UpdateDateTime	
4.5	Updated to remove 'N' from Allowed Values against the Fields QualityMethod and ReasonCode	
Appendix C	Update to remove the row related to Quality flag 'N'.	

9. Standing Data for MSATS

Section	Description	Participant Comments
8.1	Amend the description of Average Daily Load in Table 15	
9.1	Amend the description of RegisterID in Table 18	

10. Retail Electricity Market Procedures – Glossary and Framework

Section	Description	Participant Comments
5	Amend definition of the term Average Daily Load (ADL).	

11. Other Issues Related to Consultation Subject Matter

Heading	Participant Comments
Are there better options to accommodate the change proposals, that better achieve the required objectives? What are the pros and cons of these options? How would they be implemented?	
What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	