FIVE MINUTE SETTLEMENT – METERING PROCEDURE CHANGES - (PACKAGE 1)

PROCEDURE CONSULTATION

SECOND STAGE PARTICIPANT RESPONSE TEMPLATE

Participant: *AGL*

Submission Date: *15 Feb 2019*

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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 'Five-Minute Settlement Metering Procedure Changes – Package 1' consultation.

The changes being proposed are as a result of the Australian Energy Market Commission making a final rule to align operational dispatch and financial settlement at five minutes, starting 1 July 2021.

The Rule change requires the collection, storage and delivery of revenue metering data based on five-minute intervals for use in energy settlement, network and retail billing.

Key

Please note, where AGL has added a comment the reference has been highlighted blue to clearly mark it from the general references.

2. Metrology Procedure: Part A

Section	Description	Participant Comments
3.2	A type 4A or 5 metering installation must have an optical port that meets the AS 1284.10.2 or AS 62056.21 or a computer serial port to facilitate downloading of 90 days of interval energy data for each DataStream associated with the metering installation in 90 seconds or less.	Agree
3.5	Jurisdictional Update	Noted
3.8	Meter Installation Clock	AGL notes AEMOs response and suggest that this matter be considered when metering equipment standards are being reviewed.
3.9	The end of each TI must be on the hour (EST) and each continuous period of 5 minutes thereafter.	Agree

Section	Description	Participant Comments
6	Jurisdictional Update	Noted Noting that while this is a jurisdictional; requirement, the obligation as it currently stands doers not align with roles and responsibilities in the market post PoC and applies obligations on MCs that they may not be able to manage. Any new child meter will be an interval meter as a matter of obligation now, therefore the obligation to change meters would now effectively sit with the FRMP and MC of the parent meter. Given the parent MCs is most likely to be to different FRMP from the child FRMP, this AGL suggest that AEMO should work with the jurisdictions to ensure clarity of obligations in this matter.
7	Jurisdictional Update	Noted
9.3	Jurisdictional Update	Noted
12.2	Jurisdictional Update	Noted
12.2(i)	Editorial	As the table in 12.2(i) has been deleted, the lead in clause can also be deleted.
12.4	Jurisdictional Update	Noted

Section	Description	Participant Comments
12.5	To validate that all metering data stored in the metering data services database is consistent with the energy data stored in the metering installation or the Physical Inventory (as applicable),	Noted Although this sentence seems to be a higher level obligation which would apply to all the sub-clauses, and AGL questions whether the initial sentence, starting 'To facilitate the verification…' should also include this statement about validating metering data, otherwise this statement only applies to the testing to AS….
12.6(f)	Grammatical Changes	Noted
12.8.2(b)	Grammatical Changes	Noted
21	Embedded Network Metering	AGL understands that within an embedded network there is only a requirement for both parent and child meters to be interval meters, so one could be a 30-minute meter and the other a 5-minute meter. AGL seeks to understand how as a parent retailer of the ENO – the energy allocations would be made. A possible process may be: **Scenario 1** • Parent 30 minute – child 5 minute • Add child up to 30 min intervals • subtract from parent • Adjusted Parent load then profiled to 5-minute load using NSL **Scenario 2** • Parent 5 minute – child 30 minute • Child profiled to 5 minute – How – percentage or profile ? • Subtract from parent

Section	Description	Participant Comments
		• Adjusted Parent load at 5-minute intervals The fundamental question is how the two different metering intervals are managed. A simple mechanism may be use the uniform profile process (ie divide the 30 minute data by 6). The question then becomes is that a suitable mechanism. If this is used for the child, should the parent meter be used as a profile for the child instead of even intervals ? If however, the 30 minute parent meter is being profiled for settlements, then should it be profiled prior to the 5-minute child load being removed. If so, then what will be the process for a retailer of the parent to get the initial 5-minute profile information. AGL wishes to ensure that whatever mechanism is used should be detailed in the metrology procedure to ensure consistent application for AEMO and the ability for the parent retailer to re-calculate and reconcile the information. In summary, AGL suggests that this process be clearly defined to ensure consistent application and repeatability by retailers undertaking reconciliation.

3. Metrology Procedure: Part B

Section	Description	Participant Comments
2.3	Jurisdictional Update	Noted
2.4	Change to 'F' Metering Data Quality Flag	Noted – however: Inconsistency in cross references - Table Quality Flag F Is the reference to 2.5(e) correct as this refers to a RoLR event or should it be (f). Should 2.5(h) also be included in this statement to be consistent with the statement at the end of the clause. Final Statement Cross Reference error - the final statement for "F" metering data refers to clause 2.5.1 in three instances. There is no clause 2.5.1 – only 2.5 The table and statement are dealing with the concepts of updating F quality data and replacing F data with A data. AGL suggests that the two areas be reviewed and re-written to make it the various obligations and exceptions clearer.
2.6	Page number links replaced with section links	Agree

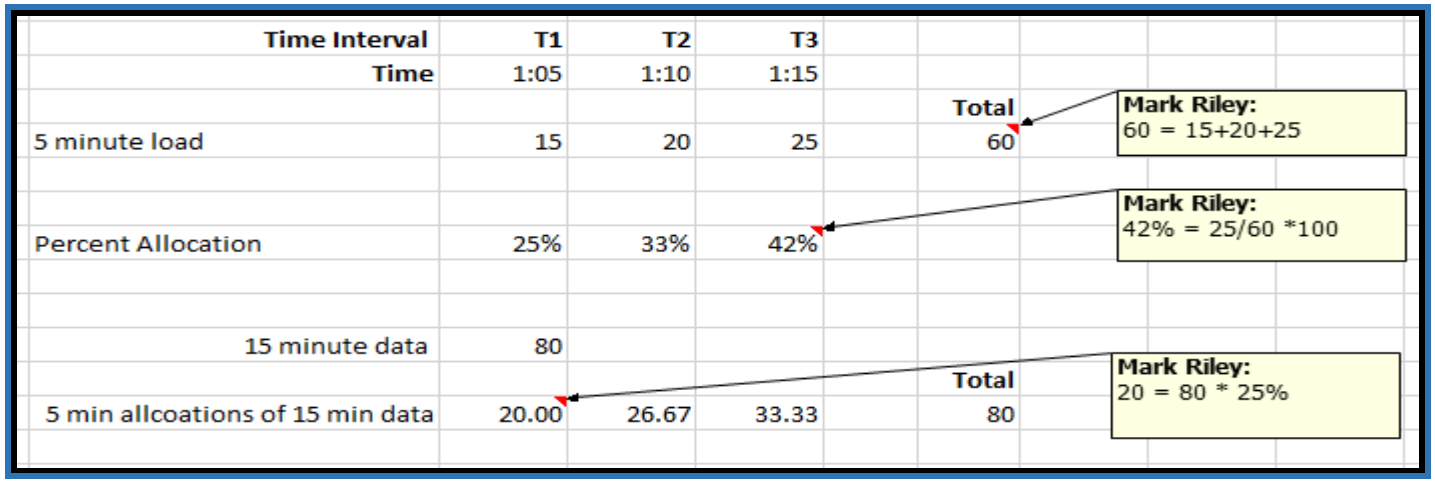
Section	Description	Participant Comments
3.3.8	Change to Type 18 – Alternative wording	Agree
3.3.11	Addition of Type 21 - Five-minute Conversion No Historical Data	Agree
4.3.3	Changes to Type 53 - Revision of Substituted Metering Data	Agree
4.3.9	Addition of Type 59 – Five-minute Conversion No Historical Data	Agree
11.2.1	Update to section reference to Metrology Procedure: Part A	Agree
11.2.2	Update to section reference to Metrology Procedure: Part A	Agree
11.2.3	Update to section reference to Metrology Procedure: Part A	Agree
11.3.1	Update to section reference to Metrology Procedure: Part A 'Half hourly' reference updated to 'Interval'	Agree
11.3.1(b)	Formula	Typo - Remove space in the word 'accumulati on' Adjust subscripts for $CLP1_j$ – large spaces in some of the formula
11.3.2	Update to section reference to Metrology Procedure: Part A Change end dates from '23:30' to '23:55'	Agree

Section	Description	Participant Comments
11.4	Update to section reference to Metrology Procedure: Part A 'Half hourly' reference in formulas updated to 'TI' 'Half hourly' reference updated to 'Five minute' Updates made to formulas	Agree
11.5	Update to section reference to Metrology Procedure: Part A Change end dates from '23:30' to '23:55'	Noted
11.6	Change end dates from '23:30' to '23:55'	Noted
12	New section added to detail the conversion of interval metering data, previous section 12, and following section numbering, have been changed due to this insertion	12.4 (b) and (d) in particular The description of the process (particularly points (ii)) could be clarified. (ii) Sum the 3/6 five-minute interval values to produce an equivalent 15/30-minute 5-minute interval energy allocation; (iii) convert the five-minute interval loads to percentages of the 15/30-minute equivalent energy allocation in (ii) for each five-minute intervals; (iv) Apply the five-minute percentages to the relevant 15/30-minute meter data to produce five-minute profiles of the 15/30-minute load. Also, with these processes an example may provide more help and insight to readers. See below for example

Section	Description	Participant Comments
13.1.4	Update to section references	Noted
13.2.2	Update to section reference to Metrology Procedure: Part A	Noted
13.2.4	Update to section references Update to formulas	Noted
13.2.5	Update to formulas	Noted
13.2.6	Update to section references Update to formulas	Noted
13.3	Update to section references	Noted
13.3.2	Update to section reference to Metrology Procedure: Part A	Noted

Section	Description	Participant Comments
13.3.2	Inventory Table	AGL believes that the requirements for the unmetered inventory table are inadequate and should more closely reflect that of a meter installation database. Recent experience in trying to reconcile unmetered loads between retailer, network and customer showed discrepancies of asset numbers, customer identification, location of assets and types of assets. With the move to global settlements, a clear and precise inventory will be required to manage the assessment of unmetered loads. AGL strongly recommends that this section be enhanced to ensure new unmetered loads are captured and that existing loads can be updated with more information. AGL understands that there is a proposal to develop unmetered processes in preparation for Global Settlements and that the inventory table matter be included as part of this process.
13.4	Update to section reference	Noted
13.5.2	Update to section reference to Metrology Procedure: Part A	Noted
13.5.4	Update to section reference Update to formulas	Noted
13.5.5	Update to formulas	Agree
14.1	Update to section reference	Noted
14.3	Update to section reference	Noted

Example calculation for 12.4 profiling



Time Interval	T1	T2	T3	
Time	1:05	1:10	1:15	
				Total
5 minute load	15	20	25	60
Percent Allocation	25%	33%	42%	
15 minute data	80			
				Total
5 min allcoations of 15 min data	20.00	26.67	33.33	80

4. Meter Data File Format (MDFF) Specification NEM12 & NEM13

Section	Description	Participant Comments
3.3.3	Included references to five-minute interval metering data	Noted
4.3	NMI data details record (200) - Added '5' to the Interval Length field Definition	Noted Now that the load recording is reduced to 5 minutes, the file format will allow for recording duration up to 1-minute intervals Given the changes being introduced for battery response and demand response, a shorter recording duration may be needed. If a recording duration of less than 1 minute is required (eg 30 sec) the field would need to be modified (eg Numeric (2.2)). Is this an appropriate time to consider this requirement while all parties are managing file standard updates, especially as other fields – eg kWh are being modified to include more decimal points.
Appendix H	Section added to include five-minute meter data file example	Noted Although AGL believes that this section should be either H2 or H1A, rather than H9, as it more closely aligns with H1, which is a straightforward interval meter file (at 5 minutes), not a composite or adjusted file. Also, as the data value has been extended to more decimal places, it would be good for the example to show how different decimal values are represented in the MDFF.

5. Retail Electricity Market Glossary and Framework

Section	Description	Participant Comments
2.6.3	Update to TI	Noted However, this is a not a technical section, but rather a summary of another document and the amendment doesn't read easily in this instance. Suggest 'Conversion of meter reading data to interval data for settlements'.
4.4.4	Removal of NEM12 & NEM13 File Clarifications	Noted
5	Updates to various Glossary items	Agree

5. Meter Data Provision Procedure

Section	Description	Participant Comments
1.1	Changes to NER clause references and minor administrative updates	Agree
1.2.1	Various updates	Agree
1.2.2	Interpretation section removed from the document	Noted
1.3	Retail Electricity Market Procedures – Glossary and Framework added as a related document	Noted
2.3	Update to section (d)	The change is noted, but AGL is not sure that it has made the obligation clearer. For 2.3(d)(ii) we're not sure that the sentence is grammatically correct. The two clauses use the word 'provided' and 'supplied' in relation to the validation information, due to the edits. Suggest that for consistency the work 'provided' or 'supplied' is used consistently. Possibly for clarity the clauses could begin: (i) For those customers where all validation information has been provided …comply with clauses.. (ii) For those customers where the validation information has not been provided comply with clause

<table>
<tr><th>Section</th><th>Description</th><th>Participant Comments</th></tr>
<tr><td>3.4</td><td>Removal of ‘single’</td><td>AGL notes the change to 3.4(a) but suggests that the obligation is for the retailer or DNSP to provide a meter data file or meter data files for the period requested.

3.4(b) is more of a supporting note.</td></tr>
<tr><td>4.1</td><td>Change to character length</td><td>Noted

Although AGL suggests that the specific information should directly refer to the MDFF specification and the table shown as an example, eg:

Meter Data File Format Specification NEM12 & NEM13 - Appendix B. Format & Unit of Measure Field Details

For example

<table>
<tr><th>Permitted Value</th><th>Description</th><th>Format</th><th>Character Length</th></tr>
<tr><td>kWh</td><td>Kilowatt hour (energy)</td><td>Numeric</td><td>15.4</td></tr>
<tr><td>kW</td><td>Kilowatt (demand/capacity)</td><td>Numeric</td><td>15.4</td></tr>
</table>

This is to ensure that the specification always references the MDFF and links to the NEM 12/13 Files.</td></tr>
</table>

6. Other Issues Related to Consultation Subject Matter

Heading	Participant Comments
Profiling 15 and 30-minute meter reads to 5-minute trading intervals	See comments above relating to Embedded Network Metering. AGL has undertaken some analysis of 5-minute data compared to 30-minute data and has determined that there are measurable variations between the actual 5-minute data and the equivalent 30-minute data profiled back 5-minute data.
Meter Data Delivery to AEMO	AGL has no further comment at this time.
Multi-Meter Sites	Similar to the Embedded Network Question, can a multi-meter NMI have mixed data recording lengths – eg 30 min and 5 min ? Under the MSATS NMI Procedure, there is a requirement to submit data to MSATS as Net data, which tends to imply that the data for a mixed meter site either needs to be manipulated (ie profile, percentage etc. for 30 min data or 5 min data summed to 30 min) or recorded at a consistent level at all meters. AGL believes that there will be issues with retailer and network system starting from the basis of the data stream being received at the NMI level (eg basic or interval) through to data processing such as application of tariffs to load, application of products (eg Solar PV netting) etc. Again, like embedded networks, if mixed recording intervals are to be allowed, then AGL believes that there needs to be clarity on how meter data from these sites are managed for consistent application by all parties and to allow parties to manage further system changes.