

5MS Metering Procedure Packages

May 2019

This information sheet provides high level information about AEMO's metering package #1 final determination. The information sheet also explains the progressive consultation approach for the remaining five-minute settlement (5MS) and global settlement (GS) metering implementation issues, sets out AEMO's metering data delivery position, and indicates the AEMO and stakeholder metering data actions required to support 5MS and GS.

Background

On 28 November 2017, the Australian Energy Market Commission (AEMC) made a final rule to alter the settlement period for the national electricity market (NEM) from 30-minutes to five-minutes, to align with the dispatch period. The substantive amendments commence on 1 July 2021 (5MS rule).

On 6 December 2018 the AEMC made a final rule that requires a move to a global settlement framework for the demand side of the NEM (GS rule). The substantive amendments commence on 6 February 2022.

The 5MS and GS rules both require AEMO to consult and amend its relevant procedures, methodologies and guidelines by 1 December 2019.

Consultation on 5MS metering packages

For the purposes of industry consultation, AEMO has grouped its 5MS and GS affected metering procedures into three packages.

AEMO has completed its metering package #1 consultation and commenced metering package #2 consultation in mid-May 2019. Metering package #3 does not require formal consultation; however, AEMO will seek industry feedback on

these documents during the package #2 consultation period.

Please note that this document should be read in conjunction with:

- 5MS metering package #1 final procedures and final determination
- Metering package #2 consultation material.

See: <http://aemo.com.au/Stakeholder-Consultation/Consultations>

Consultation on 5MS metering packages - continued

Metering package #1

Focused on:

- Changes to various metering procedures to implement the 5MS Rule, including:
 - MDFF Specification
 - Metrology Procedure Part A
 - Metrology Procedure Part B
 - Meter Data Provision Procedures
 - Retail Electricity Market Procedures - Glossary and Framework
- Changes to the current profiling arrangements to allow for the profiling of 15 and 30-minute metering data to five-minute intervals.
- AEMO's position on the delivery, format and content contained in the metering data files

sent to AEMO (refer to Table 2 for further information).

Metering packages #2 and #3

Will focus on:

- Changes to various metering procedures to implement the 5MS Rule.
- Changes to various metering procedures to implement the GS Rule, including:
 - The treatment and inclusion of non-contestable unmetered loads into MSATS
 - The treatment of the Local Retailer (LR) and Financially Responsible Market Participant (FRMP) roles under various MSATS scenarios
- The implementation of various changes to the delivery of metering data to AEMO (refer to Table 2 for further information)

Please note that AEMO has recently submitted a proposal to the AEMC that, among other things, suggests that the 'non-market unmetered loads' in the GS Rule be renamed 'non-contestable unmetered loads', as this more accurately reflects how these loads will be treated in the market.

Final metering package #1 changes

After considering stakeholder submissions and performing its own analysis, AEMO's final determination on metering package #1 was:

- Editorial and consequential changes to the various procedures due to the implementation of the 5MS rule.
- Profiling of 15 and 30-minute meter reads to 5-minute resolution consistent with the proposal in the initial consultation paper.
- Changing the performance requirements for downloading interval metering data from manually-read metering installations due to optical port limitations.

During the package #1 consultation, AEMO also consulted on potential changes associated with the delivery of meter data to AEMO. AEMO considers that the delivery of interval metering data should be in the form of Meter Data File

Format (MDFF), superseding the current Meter Data Management File (MDMF) format.

This change is expected to result in both system and operational efficiencies for MDPs. This position has underpinned the package #1 final determination and will be implemented as part of package #2 and package #3.

Next Steps: Metering package #2 and #3

AEMO has commenced consultation on package #2. This consultation will:

- Continue to examine the procedure changes required for 5MS and GS implementation.
- Support the implementation of AEMO's metering data delivery position.

Table 1: Indicative consultation timings

Deliverable	Indicative dates
Issues Paper published	20 May 2019
Submissions due on Issues Paper	24 June 2019
Draft Report published	5 August 2019
Submissions due on Draft Report	19 August 2019
Final Report published	30 September 2019

AEMO's position on changes to the delivery of metering data to AEMO

AEMO supports the alignment and uniformity of metering data delivery by MDPs to AEMO and other market participants, as described in Table 2. This goal has been well received and supported by respondents and is expected to:

- Provide operational efficiencies for MDPs
- Reduce settlement related queries and disputes (a significant cost to the industry).

AEMO is considering introducing these changes prior to 1 July 2021, to reduce project delivery and industry risks. The associated functionality will be included in industry testing and market trials.

TABLE 2: AEMO’s position on changes to the delivery of metering data to AEMO

Item	Prior to 1 July 2021	From 1 July 2021
Meter data file format	<ul style="list-style-type: none"> Interval and Basic metering data to be delivered to AEMO via Meter Data Management Format (MDMF) 	<ul style="list-style-type: none"> MDFF NEM12 files to be the required file format for all interval metering data being delivered to AEMO MDFF NEM13 files to be supported by AEMO <ul style="list-style-type: none"> AEMO to continue to support and accept MDMF files for Basic meter reads only
Metering data resolution	<ul style="list-style-type: none"> Where the metering data is in sub-intervals of 30-minutes, the metering data must be aggregated to 30-minute trading intervals before delivery 	<ul style="list-style-type: none"> Interval metering data to be delivered as per the meter’s configuration i.e. 5, 15 or 30-minute intervals
Meter data frequency	<ul style="list-style-type: none"> AEMO receives all settlements ready data for a billing period by the date specified in the Data Delivery Calendar, there is no restriction on whether MDPs deliver it on a daily or other basis 	<ul style="list-style-type: none"> AEMO receives all settlements ready data for a billing period by the date specified in the Data Delivery Calendar Metering data is to be delivered to AEMO on a daily basis
Metering data granularity	<ul style="list-style-type: none"> Where the metering data comprises separate export and import Datastreams, the respective export and import intervals must be aggregated E – B flows to provide the Net ‘N’ value CATS NMI Datastream (CNDS) table records associated to interval metering are to be created at the Net datastream level e.g. N1 	<ul style="list-style-type: none"> Import and Export Active energy (kWh) and Import and Export Reactive energy (kVarh) will be required to be sent to AEMO <ul style="list-style-type: none"> All other forms of measurement (such as volts and amps) are not required to be delivered to AEMO but may be provided on a voluntary basis All new records created in the CATS NMI Datastream (CNDS) table are to be created at the register level e.g. E1 and B1 <ul style="list-style-type: none"> Existing net datastream records can remain active post 1 July 2021, until an update to the datastream record is required e.g. meter replacement. Where an update is required to a CNDS record, the net datastream record is to be inactivated and any new active datastreams records are to be created at the register level Datastreams associated to import and export reactive energy e.g. Q and K do not need to be created in the CNDS table

Indicative stakeholder and AEMO activities to implement 5MS and GS metering procedure changes

The fundamentals of NEM settlement are changing with the implementation of 5MS and GS.

While consultation on various metering implementation issues are still in progress, the following table provides an indication of how AEMO and NEM participants will likely need to prepare for expected metering data activities from 1 July 2021.

TABLE 3: Indicative NEM Participant and AEMO metering data actions required to support 5MS and GS

Participant	Prior to 1 July 2021	From 1 July 2021
Metering Data Providers	<ul style="list-style-type: none"> • Prepare for the items stated in Table 2 – ‘From 1 July 2021’ column • Prepare to include of non-contestable unmetered loads into MSATS • Prepare to deliver ALL connection point metering data to AEMO, including Tier 1 accumulation metering data and non-contestable unmetered loads • Prepare to receive modified and/or new RM reports 	<ul style="list-style-type: none"> • Perform the items stated in Table 2 – ‘From 1 July 2021’ column • Maintain non-contestable unmetered loads in MSATS • Deliver ALL connection point metering data to AEMO, including Tier 1 accumulation metering data and non-contestable unmetered loads • Receive modified and/or new RM reports
Retailers	<ul style="list-style-type: none"> • Prepare to receive and apply five-minute metering data • Prepare to profile 15 and 30-minute metering data to five-minute resolution • Prepare to receive CNDS CATS transactions at the register level • Prepare to receive modified and/or new RM reports • Support MDPs in preparing for the inclusion of non-contestable unmetered loads into MSATS 	<ul style="list-style-type: none"> • Receive, process and apply five-minute metering data to applicable functions e.g. wholesale settlement reconciliations, customer billing and network reconciliations • Profile 15 and 30min metering data to five-minute resolution • Process CNDS CATS transactions relating to register level datastreams • Receive modified and/or new RM reports
Distribution Network Service Providers	<ul style="list-style-type: none"> • Prepare to receive and apply five-minute metering data • Prepare to receive CNDS CATS transactions at the register level • Support MDPs in preparing for the inclusion of non-contestable unmetered loads into MSATS 	<ul style="list-style-type: none"> • Receive, process and apply five-minute metering data to applicable functions e.g. network billing • Process CNDS CATS transactions relating to register level datastreams
AEMO	<ul style="list-style-type: none"> • Prepare for items stated in Table 2 – ‘From 1 July 2021’ column • Prepare for profiling 15 and 30-minute metering data to five-minute resolution • Prepare for allowing CNDS CATS transactions at the register level • Determine the treatment and inclusion of non-contestable unmetered loads into MSATS • Prepare to receive ALL connection point metering data from MDPs, including Tier 1 accumulation metering data and non-contestable unmetered loads • Modify, retire and create RM reports as required 	<ul style="list-style-type: none"> • Receive, process and apply five-minute metering data to applicable functions e.g. wholesale market settlements • Profile 15 and 30min metering data to five-minute resolution • Support CNDS CATS transactions relating to register level datastreams • Support the treatment and inclusion of non-contestable unmetered loads into MSATS • Receive ALL connection point metering data from MDPs, including Tier 1 accumulation metering data and non-contestable unmetered loads • Provide modified and new RM reports to participants