5MS Metering Procedures Focus Group

Wednesday, 15 August 2018

AEMO Office, Level 22, 320 Collins St, Melbourne

*This slide pack was developed for the Metering Focus Group meeting. This version of the slides has been annotated with the group's comments or recommendations on each issue.

Agenda

- Introduction and Overview
- Procedure Prioritisation
- Metering Procedure Changes
  - MDFF Specification NEM12 and NEM13
  - MDM Procedures and MDM File Format and Load Process
  - Metrology Procedures: Part A
  - Metrology Procedures: Part B
  - Glossary and Framework
- Re-Accreditation
- Issues
  - Identified issues
  - New issues
- Next Steps

Attendees

Attendee	Organisation
Aakash Sembey	Simply Energy
Amit Arya	Momentum Energy
Andy Gillis	SAPN
Ashlei Neos	Alinta
Ty Crowhurst	Intellihub
Mario Iogha	Origin Energy
Jonathon Briggs	Metering Dynamics
Justin Stute	Select Data
Linda Brackenbury	Plus ES

Attendee	Organisation
Louise Webb	Vector AMS
Mark Riley	AGL
Wendy McLeod	Alinta
Mark Pilkington	Powercor
Jeff Roberts	Evoenergy
Shawn Tan	Energy Australia
Suvid Satyawadi	Alinta
Tim Lloyd	Essential Energy
Dino Ou	Endeavour Energy

Attendee	Organisation
Chantal Wright	Momentum
Stephanie Lommi	Red /Lumo
Sean Jennings	Red /Lumo
Tony Bergmeier	Snowy Hydro
David Ripper	AEMO
Craig Shelley	AEMO
Emily Brodie	AEMO
Umesh Dutt	AEMO
Gary Eisner	AEMO

Introduction and Overview

Introduction and Overview

AEMC Decision

- Final rule change made 28 Nov 2017 with industry go live 1 July 2021.

Key functional metering implications of 5MS include:

- AEMO and Participant systems to accept five minute metering data from the market.
- AEMO to receive MDFF metering data files for settlements.
- Re-configuring interval meters to produce five minute metering data.
- Define MDFF interval file records for five minute metering data.
- Revise profiling and type 7 calculations for five minute metering data.
- Develop conversions for 30 and 15 minute to five minute metering data.
- Controlled Load Profile (CLP) and Net System Load Profile (NSLP) change from 30 minute to five minute.

Procedure Prioritisation

Procedure Prioritisation

Procedure Title	Consultable Procedure	Impact
MDFF Specification NEM12 and NEM13	N	High
MSATS Procedure: Metering Data Management (MDM) Procedure	Y	High
MDM File Format and Load Process	N	Medium
Metrology Procedure: Part A	Y	High
Metrology Procedure: Part B	Y	High
Retail Electricity Market Glossary and Framework	Y	High

Procedure Prioritisation

- Procedures identified on previous slide considered by AEMO to have highest impact for Participant system design, build and testing.

Actions from MPFG meeting

- MPFG Participants to confirm that these Procedures are to be the subject of Work Package 1 consultation
- MPFG Participants to identify and provide reasons why any other Procedures that should be included Work Package 1 consultation.

Metering Procedure Changes

Metering procedure changes – MDFF Specification NEM12 and NEM13

- Change scope of procedure, add AEMO to list of MDFF recipients.
- Interval metering data – add in 5 minute data.
- Define 5 minute start and end times.
- Remove MDM and net data file references.
- Produce example of 5 minute metering data file.
- Requirements to change “Required”, “Not Required” to “Mandatory”?

Actions from MPFG meeting

- MPFG Participants to identify MDFF data fields that should be made “Mandatory”.

Metering procedure changes – MDM Procedures and MDM File Format and Load Process

- Load data – Reflect MDP Obligations from MDP SLP (current obligation to submit MDMT).
- Inclusion of new profile names.
- Updated calculation methods for NSLP and CLP.
- Reports – changes to reconciliation reports?
- Update any references of 30 minute data to 5 minute.
- AEMO to accept 5, 15 and 30 minute metering data.
- DCTC to replaced by Metering Installation Type Code?
- Other MDM file requirements to be replaced by MDFF data?

Actions from MPFG meeting

- MPFG Participants to identify other MDM file requirements to be replaced by MDFF data.

Metering procedure changes – Metrology Procedures: Part A

- Section 3.7 – Potential noting of Data Storage assumptions.
- Section 3.9 – Amend section based on new definition of a TI and interval energy data.
- Section 7 – Reversion of Metering Installations types needs to be updated (removal of ability to replace a device that is capable of producing interval energy data and is already installed in a metering installation with a device that only procedures accumulated energy data).
- Section 12.8.2 – Requirements for CLP.
- Include meter data storage exemption procedure – propose that this procedure can be included within Metrology Proc: Part A.

Action from MPFG meeting

- AEMO will include new meter data storage exemption procedure in Metrology Procedure: Part A.

Metering procedure changes – Metrology Procedures: Part B

- Section 11 – Conversion of accumulated metering data:
  - Sample meters and controlled loads
  - Update Profile Preparation Service to 5 minute trading interval
- New Section for conversion of interval metering data (30-minute data to 5-minute and 15 minute to 5 minute).
- Unmetered load (type 7 metering installations) – metering data calculation.
- Review linear interpolation substitution method – four trading intervals or two hours?

- Action from MPFG meeting
- Overwhelming support to retain current linear interpolation substitution method definition – to be applied for up to two hours.

Metering procedure changes – Glossary and Framework

- Addition of new Exemption Procedure - Metering Provider Data Storage Requirements (1.3, 2.2 (figure 2), 2.7.7, 5: Glossary).
- Change to description of MDM Procedures (2.6.3) – conversion of meter readings to half-hourly data for settlements.
- Change to description of Service Level Procedure – MDP (2.7.2) – refers to MDFF Specification (NEM12) – add a new format (if required).
- Change to description of MDFF (4 (figure 3), 4.4.4) – addition of new format to document name (if required) and changes to MDM Data file.
- Changes to Glossary (section 5):
  - BMP – basic meter profiler (refers to half-hourly)
  - Exemption Procedure – defined as existing exemption procedure
  - Interval – needs to be updated to reflect new rules definition of interval energy data
  - MDFF Specification – addition of new format if required
  - MDM Contributory Suffix – definition to be checked against changes to the NMI Procedure
  - MDM Data File – removal of MDM data file as standard file for delivery of metering data to AEMO
  - Change B2B definitions (if required)

Re-Accreditation

Re-Accreditation

Qualification Procedure Metering Providers, Metering Data Providers & Embedded Network Managers

Section 5

Re-accreditation may be necessary for reasons such as:

- Change to the NER,
- Change to accreditation requirements,
- Changes to Participant processes, systems or key personnel, or
- Result of action taken under the Default and Deregistration Procedure.

Participants are encouraged to contact AEMO where there is any uncertainty as to whether a re-accreditation is necessary.

Re-Accreditation

Scenarios

MP or MDP intending to build new system for 5MS or Global Settlements (GS)

- Re-accreditation most likely required for system and new internal process documentation.

MP or MDP intending to change existing systems for 5MS or GS

- Demonstration of changed system capability to support 5MS or GS required (Readiness).
- Demonstration that internal process documentation reflect 5MS or GS capability.
- Review at next routine audit.

Action from MPFG meeting

- MPs and MDPs to contact AEMO to discuss intended system and internal procedure changes to support 5MS or GS.

Issues

Identified issues

- Metering data delivery timeframe
  - Provide details of this issue for SWG review
  - Increase metering data file size
    - Required metering data file size?
  - Required B2B and B2M communications capacity?

- Requirement to differentiate between metering data types?
  - Add new format?
  - Metering data file to only contain the same metering data type?

Actions from MPFG meeting

- AEMO advised SWG that review of metering data file size increase and communications capacities is high priority – impact on metering data delivery timeframes.
- MPFG Participants to confirm whether there is a requirement to differentiate between interval metering data types.

New issues identified in MPFG meeting

- Materiality of 20 second time error for 5MS
  - The NER allows a 20 second time error for meters:
    - 1.1% of 30 minute TI
    - 6.7% of a 5 minute TI
  - NER 7.10.6(d) requires MDP to check metering installation clock accuracy each time the metering installation is accessed. Clock accuracy is therefore not related to individual trading intervals. AEMO does not consider this to be an issue.
- AEMO will accept Wh metering data but will only supply kWh metering data
  - AEMO to develop a convention for resolution of decimals with consideration of rounding of values.
- AEMO to consider accepting B2B transactions including PMD/VMD processes.
  - AEMO considers an “AEMO initiated” RM11 report will produce the same result as PMD/VMD requests. Therefore AEMO will receive MDFF via B2M as proposed.

New issues identified in MPFG meeting

- AEMO to accept metering data where data streams not registered in MSATS rather than reject the metering data as proposed.
  - AEMO to review its system design

- Standardise the use of RegisterID and DatastreamID
  - MPFG Participants agreed this should be reviewed.
  - Proponent to provide a proposed approach to achieve standardisation.

Next Steps

Next Steps

- MPFG feedback on procedure change impact assessment
- MPFG feedback on prioritisation approach

- Second metering procedures focus group meeting to be determined.
- Outcomes of focus group fed back into procedure development process and to the PWG.

- Other comments

Questions

AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

Actions - MPFG 15 August

Item	Topic	Action Required	Responsible	By
1	Metering data delivery timeframe	AEMO advised SWG that review of metering data file size increase and communications capacities is high priority – impact on metering data delivery timeframes. AEMO and SWG Participants to determine increased metering data file size and communications capacities. Consider part-day data delivery once SWG considers data volumes.	AEMO SWG	Completed SWG meeting date TBC
2	Requirement to differentiate between metering data types	MPFG Participants to confirm whether there is a requirement to differentiate between interval metering data types.	MPFG Participants	31 Aug
3	Materiality of 20 second time error for 5MS	NER 7.10.6(d) requires MDP to check metering installation clock accuracy each time the metering installation is accessed. Clock accuracy is therefore not related to individual trading intervals. AEMO does not consider this to be an issue.	AEMO	Completed
4	Units of measure – AEMO will accept Wh metering data but will only supply kWh metering data	AEMO to develop a convention for resolution of decimals with consideration of rounding of values.	AEMO	7 Sep
5	AEMO to consider accepting B2B transactions including PMD/VMD processes	AEMO considers an “AEMO initiated” RM11 report will produce the same result as PMD/VMD requests. Therefore AEMO will receive MDFF via B2M as proposed.	AEMO	7 Sep

Actions - MPFG 15 August

Item	Topic	Action Required	Responsible	By
6	AEMO to accept metering data where data streams not registered in MSATS rather than reject the metering data as proposed	AEMO to review its system design .	AEMO	14 Sep
7	Standardise the use of RegisterID and DatastreamID	Proponent to provide a proposed approach to achieve standardisation.	Ty Crowhurst	31 Aug
8	5MS metering data volumes	AEMO to review preliminary data modelling undertaken.	AEMO	31 Aug
9	Transition to 5 minute metering data	Develop transition plan to implement provision of 5 minute metering data with PWG/SWG. Joint metering/IT focus group to provide input to transition plan.	AEMO/PWG/ SWG	TBC Joint meeting