

5MS/GS Transition Focus Group #2: *Transition planning for metering and metering data*

Monday 23 September 2019, 10:00am – 3:30pm

AEMO Office:

AEMO Sydney Office – Level 2, 20 Bond St, Sydney, NSW 2000

Face-to-face only

This slide pack was developed for the Transition Focus Group meeting. This version of the slides has been annotated with notes from the meeting. These additional notes are on new slides that have a yellow background.

Attendees

Attendee	Organisation
Aakash Sembey	Simply Energy
Stephanie Macri	Red/Lumo
Fergus Stuart	Origin Energy
Snehal Jogiya	ERM/Powermetric
Paul Willacy	Aurora
Jonathon Briggs	Metering Dynamics
Terry Lodge	EQL
Justin Stute	Mondo
Mark Pilkington	Citipower/Powercor
Daniel Perry	Ausnet Services
Brendan McAnnalley	Intellihub
Pieter Wijtzes	AGL

Attendee	Organisation
Stephanie Lommi	Alinta
David Woods	SAPN
Dino Ou	Endeavour Energy
Jeff Roberts	EvoEnergy
Tim Lloyd	Essential Energy
Jon Ham	Energy Australia
Paul Greenwood	Vector
Helen Vassos	PlusES
Craig Shelley	AEMO
Blaine Miner	AEMO
Greg Minney	AEMO
Emily Brodie	AEMO

Agenda

NO	TIME	AGENDA ITEM	RESPONSIBLE
Preliminary Matters			
1	10:00am - 10:10am	Welcome, introduction and general housekeeping	Greg Minney
Matters for discussion			
2	10:10am – 10:15am	Session objectives	Emily Brodie
3	10:15am – 10:20am	Quick refresher on proposed metering and metering data transition approach	Greg Minney
2	10:20am – 10:25am	TFG feedback on the MTP and framework	Blaine Miner
3	10:25am – 10:30am	Monitoring and reporting against the MTP	Emily Brodie
4	10:30am – 11:15am	Workshop on metering and metering data transition activities	Greg Minney Blaine Miner Craig Shelley
BREAK 11:15am – 11:30am			
	11:30am – 12:30pm	Workshop continued	
LUNCH 12:30pm – 1:00pm			
	1:00pm – 2:00pm	Workshop continued	
5	2:00pm – 3:00pm	Review of workshop outcomes	Greg Minney
6	3:00pm – 3:30pm	General business and next steps	Greg Minney

Session objectives

Emily Brodie

Session objectives

- Refresher on AEMO's proposed approach and framework for the metering transition plan (MTP)
- Debrief on MTP framework feedback from the August meeting
- Monitoring and reporting progress against the MTP:
- Seek agreement on the MTP, including that:
 - the MTP is the basis for participants to complete their own metering transition plans
 - the actions and responsibilities reflect the agreed transition at a suitable level of detail
- Populate the MTP content
- Confirm next steps

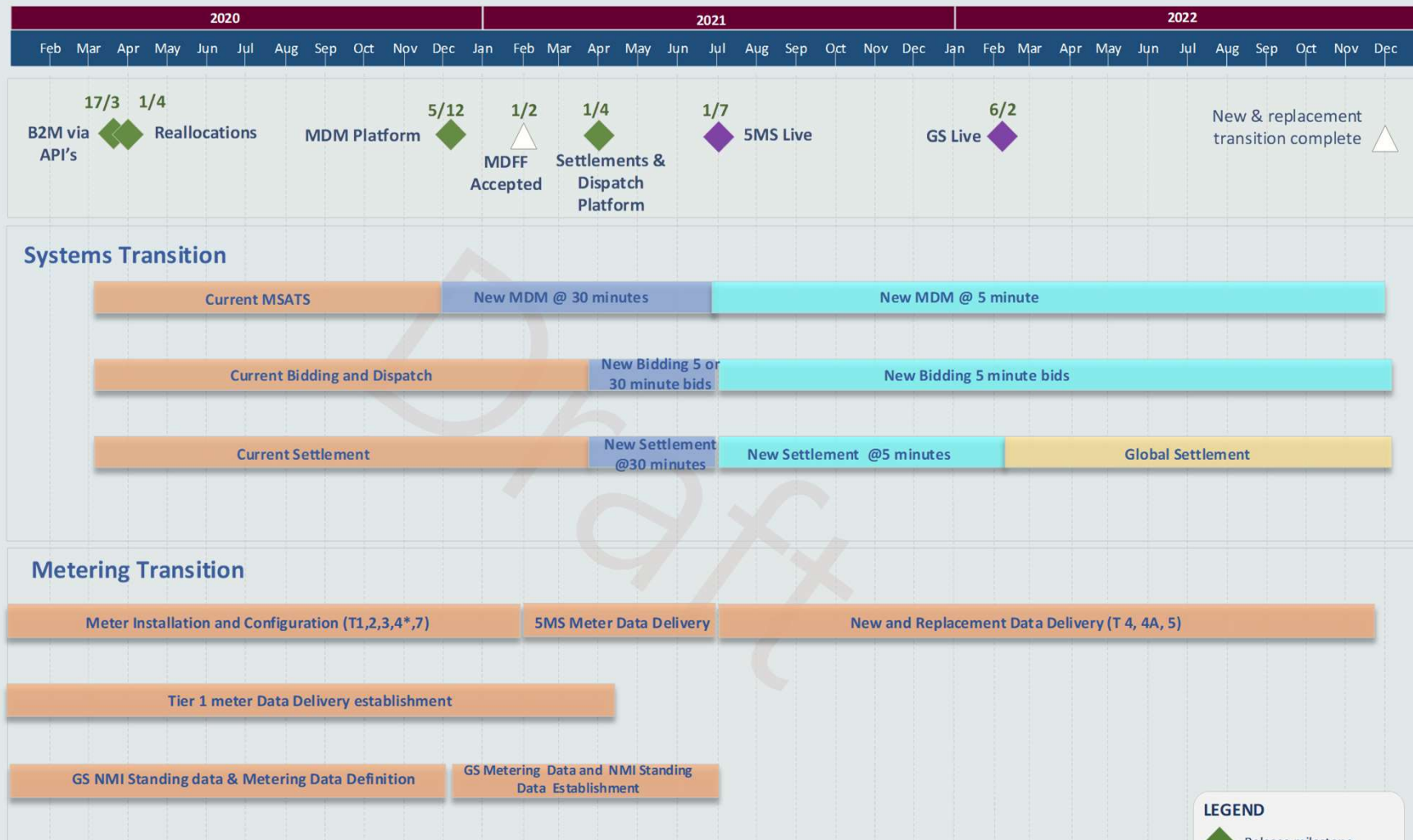
TFG feedback on meeting content

TFG suggestions for workshop content	AEMO response
Governance around contingency and go-live risk	RWG will help shape approach through the 5MS/GS Industry transition and go-live strategy
Agreement of windows to support data transition prior to go-live	The final approach will be an output of the metering transition plan
Continue with content of the detailed planning spreadsheet	Will occur in this metering transition plan workshop
Meter churn day scenarios	Related discussion will be included in meter installation/reconfiguration component of workshop
Interim period issues - managing parties at different statuses	Related discussion will be included in data delivery component of workshop
Type 7 and forward estimates	Related discussion will be included in data delivery component of workshop
Assurances that participants will not be sending 5 minute data prior to the target date	Related discussion will be included in data delivery component of workshop
A mitigation plan if specific milestones are at risk of [not] being delivered by the target date	RWG will help shape approach through the 5MS/GS Industry transition and go-live strategy
Potential workarounds/exclusions for participants that are unable to meet target dates	RWG will help shape approach through the 5MS/GS Industry transition and go-live strategy

Summary of proposed metering and metering data transition approach

Greg Minney

Summary of proposed metering and metering data transition approach



Phased Implementation of platforms:

- Operational stabilisation on a 30-minute settlement basis
- Provides capability required to support SMS and GS metering transition and metering data population

LEGEND

- Release milestone
- Program Go-Live milestone
- Capability active/non active milestone

NOTES

- AEMO provided a summary of the expected timelines regarding AEMO's phased Systems and Metering transition
- AEMO emphasised that System timelines do not equal Transition timelines
 - AEMO's phased system implementation is about enabling transition activities and is *not* about creating new 'obligations' for participants
 - Where systems are implemented on "like for like" basis, participant interaction with the upgraded system continues as before
- AEMO Procedures communicate the end state i.e. aligns primarily to Rule requirements. They do not for the most part include transitional material
 - Mixed views regarding procedures not including transitional obligations
- Readiness strategies and plans will specify transitional requirements on AEMO and industry participants
- Group agreed that transitional activities can not wait until the last participant is ready

TFG feedback on MTP and framework

Blaine Miner

MTP TFG framework and content feedback

Suggestion	Response
Add new sub-category for subset of type 4 meters (TNI, Market Generator and SGA)	Sub-category added
Add new sub-category for cross boundary supplies	Sub-category added
Add new sub-category for SAMPLE meters	Sub-category added
Add new sub-category for pre-1 Dec 2018/19 type 4 and 4A meters	Sub-category added
Add new column for 'Volume/Size' considerations	New column added
Re-label 'Affected Parties' column to 'Directly Affected Parties'	Column relabelled
Add new category "B2B Changes" as a place holder for B2B changes identified by the IEC or industry	Will be added if needed
Add new sub-category for RM Reports	Potentially better suited to settlements implementation activities than metering transition
Under each subcategory also consider the changes required by participants where they are the <i>recipient</i> of the information	Capture as considerations/dependencies Associated activities should be in participants' own plans

NOTES

- AEMO went through the Meter and Metering Data Transition Plan framework feedback it had received from the TFG, including AEMO's responses/positions
- A member of the TFG mentioned that we need to be conscious of the application of the words 'By' and 'From' when specifying timings in the transition plan content

MTP monitoring and reporting

Emily Brodie

Monitoring and reporting against the MTP

- The metering/metering data transition will be incorporated into the *Industry readiness reporting plan*
 - This details the readiness reporting framework and activities that will enable regular assessments of AEMO's/participants' 5MS/GS readiness
- RWG discussions on readiness reporting at RWG #4 (Sep) and RWG #5 (Oct) meetings are across all aspects of the 5MS/GS delivery, including metering/metering data.

NOTES

- A member of the TFG mentioned that they would prefer to have Readiness surveys conducted via spreadsheets instead of Survey Monkey in the future
- AEMO stated that the agreed format and approach of the Readiness Surveys from Feb 2020 would be discussed and determined by the RWG
- Group discussed the intention for the readiness Reporting milestones to reflect participant delivery against the MTP

Workshop on metering and metering data transition activities

Blaine Miner

MTP Considerations

Participant	Feedback/Questions
Origin Energy	Will all MDPs have the capability to aggregate 5min metering data for requesting market participants prior to and post 1 July 2021?
	Will MDPs be able to deliver different 'levels' of trading interval metering data to different parties associated to a 5min capable NMI e.g. 5min to AEMO but 30min to Retailer X and DNSP Y?
Tango Energy	What assurances do small retailers have that we will not have to receive and process 5min metering data prior to the 'go live' date, while meters are being upgraded?
AGL	In order to lower the transition risk related to excluded metering installations at wholesale connection points, AGL proposes to have all those meters transition to 5m meter data delivery by no later than the end of May 2021.
AGL	The participant type of 'Generator' should be considered for potential inclusion as an 'affected party' where appropriate
Citipower/Powercor	1 July 2021 should be the EARLIEST that AEMO should be seeking NCULs to be in MSATS/available for UFE purposes
Citipower/Powercor	LNSP's are not permitted under the NER to become the MC for cross boundary supplies until February 2022, hence the LNSP should be permitted to provide data to AEMO in a 5 minute format from 1/7/2021 (but off-market) until February 2022
Citipower/Powercor	By December 2022 some 120,000 CitiPower/Powercor New and Replacement AMI Meters will have been installed, and must move to 5 minute data no later than 1 December 2022. It's not credible to try and leave that re-configuration to the last month and certainly not the last night. December 2022 is an end date for the MC's to achieve final compliance, not a conversion date or System ready date for retailers to target. A more realistic target is for DBs and Retailers to agree to be ready by 1 January 2022 and then have an orderly transition of meters from that date to 1 December 2022 inclusive of the transition to installing New and Replacement meters with 5 minute interval data.
Citipower/Powercor	Sometime after 1 July 2021 we will complete our MDP System upgrades to collect/process and deliver AMI 5 minute data
PlusES	If a party updates the CNDS table from N1 to E1 and B1 for a NMI on say 1 Feb 2021, will AEMO require NEM12 for that NMI to be delivered thereafter by the MDP (i.e. no further sending of MDM files)? Including for data prior to 1 Feb 2021.

NOTES

- Discussion regarding 5min capability pre and post 1 July 2021:
 - Shouldn't assume that all MDPs will offer aggregation services
 - Shouldn't assume that all MDPs will be able to deliver different trading interval lengths to different participants associated to a specific NMI e.g. 5min to AEMO, 30min to Retailer A and 5min to DNSP B
 - Shouldn't assume that all retailers/generators/distributors will have systems that can accept 5min data pre 1 July 2021
 - Need to ensure participants consider increased metering data volumes due to the introduction of 5min trading intervals
 - Member asked if AEMO could provide an aggregation service instead of MDPs
 - AEMO did not believe this would possible but would take away the request for further consideration (Action)
 - Member suggested the potential value of having a matrix which specifies who will be 5min capable and when
 - AEMO did raise the concern that the matrix would need to be done in such a manner to ensure that it did not create a competitive advantage between MDPs
 - AEMO to consider developing participant matrix so that it can provide visibility of when participants will transition to 5min capability for B2B metering data transactions (delivering or receiving). (Action)
 - Member stated that 5min capability must not be allowed to affect retail competition e.g. customer churn scenarios pre 1 July 2021
- Industry may need to implement aggregation principles to assist in managing this issue

NOTES

- The introduction of the new NMI Classification Codes needs to consider NMI Discovery and CATS CR processing implications
- Member raised the issue that the creation of non-contestable unmetered load NMIs in MSATS requires a significant amount of effort, including data cleansing for DNSPs
 - Member suggested that the earliest date that they would have these NMIs in MSATS would be 1 July 2021
 - A different member asked what the implication where of these loads not being in MSATS by 1 July 2021 and AEMO responded that the published UFE values would be overstated
- Discussion regarding meter data delivery
 - Only MDPs and AEMO are directly affected by the transition from MDMF to MDFF from 1 July 2021
 - Participant B2B metering data delivery format not changing i.e. continues to be MDFF as it is today
 - Transition from net to register level datastreams for non-type 1-3 and subset of 4 meters do not currently have a sunset period
 - Type 1-3 and subset of 4 to have register level datastreams in CNDS table by 1 July 2021
 - All new CNDS records from 1 July 2021, associated to interval meters, will need to be created at the register level

Approach to workshop

1. For effective use of time and to enable a wide range of views, AEMO will allocate attendees into 3 groups:
 - Meter installation and reconfiguration
 - Meter data delivery
 - MSATS standing data creation and maintenance
2. Taking into account any feedback provided prior to the session, each group will develop:
 - sub-categories
 - actions
 - responsibilities
 - dependencies
 - timeframes
3. Each group will present back its findings to the TFG and any further feedback will be captured

Underlying activities

And now for the *fun* part
Again... 😊

... we will now refer to the spreadsheet that accompanies this meeting pack



Review of workshop outcomes

Greg Minney

NOTES:

Group 1: Physical Metering

- MPs have completed their MSATS CRI data cleanse activities to help identify type 1-3 and subset of 4 meters
- MPs questioned the benefits of providing industry their meter work plans
- Group raised the issue of potential site access issues and how they would be managed
- Group believed that accreditation requirements should be low for MPs
- MPs believed that data storage exemptions would likely not be required
- AEMO to rerun metering reports to update the number of meters that need replacement or reconfiguration for 5MS. Will include consideration of type 1-3, 4* and 7, including SGA and cross-border meters. (Action on AEMO)
- Group raised the question regarding the provisioning of 5min SCADA data and the calculations for Special Sites
- AEMO to review calculations for special sites (Action on AEMO)
- MPs stated that due diligence is well underway
- MPs not concerned about achieving Rule requirements/timelines
- In the event of an outage requirement, BAU processes would apply
 - MPs would inform Retailers of these situations

NOTES:

Group 2: Metering Data Delivery

- Looked at meter type by meter type delivery
- Then broke delivery into 2 categories
 - Delivery for settlement purposes vs delivery for other purposes
- Participants were looking for visibility of work plans for new and replacement Type 4/4A/VICAMI meters to assist in their own volume considerations
 - Work plans being requested to be available by Q2 2020 so that everyone had visibility of what was coming and when
 - Consolidation of participant work plans / rollout plans would allow industry wide view of rollout volumes and timings to be developed
- General discussion regarding: tier 1 basic meter forward estimates, 5min metering data for type 7 and NCULs
- Question raised re accreditation requirements
 - AEMO reiterated that the extent of the accreditation updates will be dependent on the participants changes to its people, processes and systems
 - AEMO will engage with the RWG on 5MS/GS accreditation updates at the Oct 19 meeting
- Question asked regarding the required trading interval lengths for Sample meters under the 5MS Rule
 - AEMO to identify NER clause relating to sample meter interval lengths and share with TFG
(AEMO Action)

NOTES:

Group 3: MSATS Standing Data

- Cross-boundary supplies
 - NMI and metering information to be in MSATS by 1 July 2021 – group thought this would be achievable but would be a ‘big job’ for DNSPs
 - Questions asked:
 - Will these NMIs be prohibited from being transferred in MSATS? (AEMO Action)
 - How do we ensure the new NMIs are not objected to erroneously by Retailers?
 - Will the creation of a second wholesale NMI, associated with a single cross boundary supply, affect Settlements if it is created pre 1 Dec 2020? (AEMO Action)
- Non-contestable Unmetered Loads
 - B2BWG to consider communication options between Retailers and DNSPs for 1 NMI to multiple device scenarios
 - If DNSPs created NMIs early would they then need to do a NMI Classification Code update once the new code is available in MSATS?
 - Larger TFG group suggested a one part process
 - For existing NCUL NMIs in MSATS a NMI Classification Code update would be required pre 1 July 2021
 - For new NCUL NMIs, wait until the new NMI Classification Code is available and then do NMI create CRs
 - Is a bulk change tool option required?
 - Unsure, this would need to be considered in due course

NOTES:

Group 3: MSATS Standing Data

- New NMI classification codes
 - Timing needs to consider implications to NMI Discovery and CATS CR processing
 - AEMO to monitor the correct application of certain codes e.g. NREG
 - Discussed the benefits of introducing some codes earlier than others to help mitigate implementation risk e.g. BULK or improve transitional effectiveness (NCONUML 1 to 1 LR to DB relationship)
 - Retailer A and DNSP B ready to create NCUL NMIs then the CRs should be able to be triggered
 - Is AEMO able to stagger introduction of the new codes? (AEMO Action)
- Updates to applicable LR and FRMP fields to GLOPOOL
 - Updates must be effective 6 Feb 2022
 - Notification options should consider: opt in and opt out and independent participant script updates (shared script rules)
 - Need to consider/manage In-flight CRs as part of the bulk update process
- Tier 1 Basic meter datastreams
 - Group believed that most of these NMIs are currently in MSATS but that a portion of the datastreams are currently inactive
 - AEMO stated that these NMIs are currently excluded from Settlements due to the FRMP equalling the LR
 - Activities required to activate the datastreams may be different for different MDPs i.e. depending on if the NMIs and datastreams already exist in MSATS and if they are in an active status
 - Bulk updates may be required but unsure at this stage

General Business and Next Steps

Greg Minney

Reflection on session objectives

- Refresher on AEMO's proposed approach and framework for the metering transition plan (MTP)
- Debrief on MTP framework feedback from the August meeting
- Monitoring and reporting progress against the MTP:
- Seek agreement on the MTP, including that:
 - the MTP is the basis for participants to complete their own metering transition plans
 - the actions and responsibilities reflect the agreed transition at a suitable level of detail
- Populate the MTP content
- Confirm next steps

General business and next steps

Workshop outcomes and actions to be:

- Circulated to TFG and RWG
- Considered as part of the into *Industry transition and go-live strategy*

Consolidated actions list

Agenda item	Action	Due date
Workshop on metering and metering data transition activities	TFG to provide feedback on the metering and metering data transition strawperson	Mon 14 Oct 19
	AEMO to consider whether it could provide an aggregation service instead of MDPs	Fri 18 Oct 19
	AEMO to consider developing participant matrix so that it can provide visibility of when participants will transition to 5min capability for B2B metering data transactions (delivering or receiving).	Fri 18 Oct 19
Group 1: Physical metering	AEMO to rerun metering reports to update the number of meters that need replacement or reconfiguration for 5MS. Will include consideration of type 1-3, 4* and 7, including SGA and cross-border meters.	Fri 18 Oct 19
	AEMO to review calculations for special sites	Fri 18 Oct 19
Group 2: Metering data delivery	AEMO to identify NER clause relating to sample meter interval lengths and share with TFG	Fri 18 Oct 19
Group 3: MSATS standing data	AEMO to investigate whether cross boundary NMIs could be prohibited from being transferred in MSATS	Fri 18 Oct 19
	AEMO to investigate whether the creation of a second wholesale NMI, associated with a single cross boundary supply, affect Settlements if it is created pre 1 Dec 2020	Fri 18 Oct 19
	AEMO determine whether it is able to stagger introduction of the new NMI classification codes	Fri 18 Oct 19

APPENDIX:

Refresher on 5MS and GS metering and metering data obligations

5MS Metering installation requirements

Metering Type	Requirement	Date
Types 1, 2, 3 and 7	<ul style="list-style-type: none">Must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data.	By 1 July 2021
Subset of Type 4*	<ul style="list-style-type: none">Must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data.	By 1 July 2021
Types 4, 4A and 5	<ul style="list-style-type: none">All new or replacement metering installations (other than type 4A metering installations) installed from 1 December 2018 must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data.All new or replacement type 4A metering installations installed from 1 December 2019 must be capable of recording and providing, and configured to record and provide, five-minute trading interval energy data.	By 1 Dec 2022

Note:

AEMO may grant an exemption where 1 type 1, 2, 3 or subset of type 4 meter is not quite capable of storing 35 days of metering data (i.e. 30-34 days) if it is reasonably satisfied that the Metering Provider will be able to otherwise satisfy the requirements of Chapter 7.

* Subset type 4 meters definition:

- Type 4 metering installations at a:
 - Transmission network connection point; or
 - Distribution network connection point where the relevant financially responsible Market Participant is a Market Generator or Small Generation Aggregator

5MS/GS metering data delivery to AEMO

Topic	Requirement	Date
File Format	<ul style="list-style-type: none">• MDFF NEM12 files to be the required file format<ul style="list-style-type: none">• For all interval metering data being delivered to AEMO• MDFF NEM13 files to be supported by AEMO• MDMF files for basic meter reads will continue to be supported and accepted	From 1 July 2021
Granularity	<ul style="list-style-type: none">• NEM12 interval metering data to be:<ul style="list-style-type: none">• Delivered at the register level (E, B, Q and K)<ul style="list-style-type: none">• NEM12 200 records must be accurate• As per the meter's trading interval configuration i.e. 5, 15 or 30-minute intervals	From 1 July 2021
Energy	<ul style="list-style-type: none">• Metering data which must be sent to AEMO:<ul style="list-style-type: none">• Import and Export Active energy (kWh) (E and B)• Import and Export Reactive energy (kVarh) (Q and K), where applicable• All other forms of measurement (such as volts and amps) are not required to be delivered to AEMO but will be processed if they are provided.	From 1 July 2021

5MS/GS: MSATS datastream standing data

Metering Type	Requirement	Date
Types 1, 2, 3 and 7	<ul style="list-style-type: none"> Net datastreams (N1) must be converted to Register level datastreams (E1, B1, etc.) 	By 1 July 2021
Subset of Type 4*	<ul style="list-style-type: none"> Net datastreams (N1) must be converted to Register level datastreams (E1, B1, etc.) 	By 1 July 2021
Types 4, 4A and 5	<ul style="list-style-type: none"> All new records relating to interval meters must be created at the register level e.g. E and B. 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 with import and export reactive energy e.g. Q and K must be created in the CNDS table if they exist in the CRI table. <ul style="list-style-type: none"> Datastreams must be established in a manner that ensures they are not included in market settlements. 	From 1 July 2021
Basic Meters	<ul style="list-style-type: none"> All 1st tier datastreams must be activated and meter reads delivered to AEMO, for UFE purposes 	By 1 July 2021

5MS/GS: MSATS standing data - general

By 1 July 2021

- Non-contestable unmetered load (NCONUML) NMIs and associated standing data created in MSATS
- NMI Classification Code updates, for affected existing NMIs, to reflect the new code requirements

NMI Classification Code	Description
BULK	<i>Connection point where a transmission network connects to a distribution network - also termed 'Bulk Supply Point'</i>
DWHOLSAL	<i>Distribution network connection point where energy is directly purchased from the spot market by a Market Customer</i>
NCONUML	<i>Non-contestable unmetered load</i>
NREG	<i>Connection point associated with a non-registered embedded generator, i.e. a generating unit that is not classified by a Market Generator, but may be classified by a Small Generation Aggregator as a market generating unit.</i>
WHOLESALE	<i>Transmission network connection point where energy is directly purchased from the spot market by a Market Customer</i>
XBOUNDRY	<i>Connection point where a distribution network connects to another to distribution network</i>

Thank you for your
attendance and participation!