5MS & GS Readiness Working Group #26 (incl. Systems Working Group)

Tuesday, 3 August 2021

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AEMO Competition Law Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions **must**:

1. Ensure that discussions are limited to the matters contemplated by the agenda for the discussion

2. Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO

3. Immediately and clearly raise an objection with AEMO or the Chair of the meeting if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

Participants in AEMO meetings **must not** discuss or agree on the following topics:

1. Which customers they will supply or market to

2. The price or other terms at which Participants will supply

3. Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid

4. Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)

5. Refusing to supply a person or company access to any products, services or inputs they require

Under no circumstances must Participants share Competitively Sensitive Information. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

Agenda

Greg Minney

Agenda

#	Time	Topic	Presenter
1	10:00 – 10:05	Welcome and Agenda	Greg Minney
2	10:05 - 10:15	Minutes/Actions	Anne-Marie McCague
3	10:15 – 10:25	5MS Program Update	Greg Minney
4	10:25 – 10:45	Market trial and industry testing update	Tui Grant
5	10:45 – 11:00	Essential Meter Progress and Risk/Contingency	Blaine Miner
6	11:00 – 11:15	5MS Go-Live Plan	Greg Minney
7	11:15 – 11:25	MTP Update	Blaine Miner
8	11:25 – 11:35	Upcoming Readiness Survey	Blaine Miner
9	11:35 – 11:45	Dispatch & Bidding Update	Ian Devaney
10	11:45 – 11:55	Retail Update	Jim Agelopoulos, Simon Tu, Paul Lyttle
11	11:55 – 12:05	PIR feedback	Greg Minney
12	12:05 – 12:10	Forward Plan and Other Business	Greg Minney
13	12:10	Meeting Close	Greg Minney

Minutes & Actions

Anne-Marie McCague

RWG Actions (1/1)

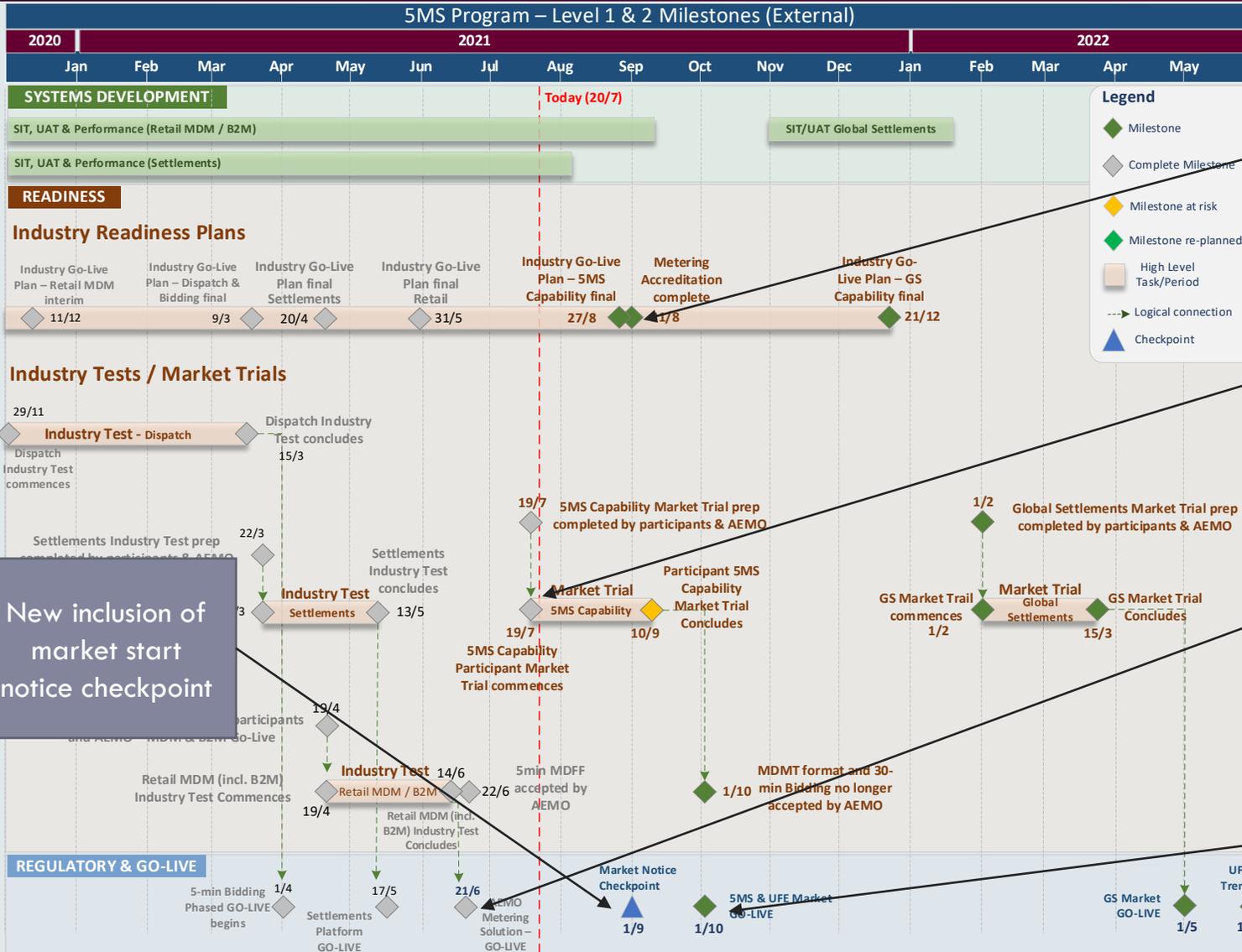| No.	Status	Action	Comment
25.4.1	Closed	RWG to provide feedback to AEMO for incorporation into Retail Cutover PIR	Discussed in this pack. AEMO is continuing to discuss feedback bilaterally with participants and will use this feedback to inform the support and comms arrangements for the 5MS Industry Go-Live Plan
25.8.1	Open	AEMO to confirm what information they could share regarding pre-1 October 5-minute metering data delivery agreements	Update to be provided
25.9.1	Closed	RWG to consider potential contingency responses to scenarios C2 and C3	AEMO has received responses in relation to potential use of SCADA data, this will considered in line with other options

5MS Program Timeline
Readiness and Go-Live

5MS Program – Level 1 & 2 Milestones (External)

| 2020 | 2021 | | | | | | | | | | | | 2022 | | | | |

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May

SYSTEMS DEVELOPMENT

Today (20/7)

SIT, UAT & Performance (Retail MDM / B2M)   SIT/UAT Global Settlements

SIT, UAT & Performance (Settlements)

READINESS

Legend
- Milestone
- Complete Milestone
- Milestone at risk
- Milestone re-planned
- High Level Task/Period
- ---> Logical connection
- Checkpoint

Industry Readiness Plans

Industry Go-Live Plan – Retail MDM interim — 11/12
Industry Go-Live Plan – Dispatch & Bidding final — 9/3
Industry Go-Live Plan final Settlements — 20/4
Industry Go-Live Plan final Retail — 31/5
Industry Go-Live Plan – 5MS Capability final — 27/8
Metering Accreditation complete — 1/8
Industry Go-Live Plan – GS Capability final — 21/12

Industry Tests / Market Trials

29/11 — Industry Test - Dispatch
Dispatch Industry Test commences
Dispatch Industry Test concludes — 15/3

22/3 — Settlements Industry Test prep completed by participants & AEMO
Industry Test Settlements
Settlements Industry Test concludes — 13/5

19/7 — 5MS Capability Market Trial prep completed by participants & AEMO
Market Trial 5MS Capability — 19/7
5MS Capability Participant Market Trial commences
Participant 5MS Capability Market Trial Concludes — 10/9

1/2 — Global Settlements Market Trial prep completed by participants & AEMO
GS Market Trial commences 1/2
Market Trial Global Settlements
GS Market Trial Concludes — 15/3

New inclusion of market start notice checkpoint

19/4 — participants and AEMO – MDM & B2M Go-Live
Retail MDM (incl. B2M) Industry Test Commences — 19/4
Industry Test Retail MDM / B2M — 14/6
Retail MDM (incl. B2M) Industry Test Concludes — 22/6
5min MDFF accepted by AEMO
MDMT format and 30-min Bidding no longer accepted by AEMO — 1/10

REGULATORY & GO-LIVE

5-min Bidding Phased GO-LIVE begins — 1/4
Settlements Platform GO-LIVE — 17/5
AEMO Metering Solution – GO-LIVE — 21/6
Market Notice Checkpoint — 1/9
5MS & UFE Market GO-LIVE — 1/10
GS Market GO-LIVE — 1/5
UFE Trends — 1/6

Drafting of the Industry Go-Live Plan – 5MS Capability has commenced. First draft will be circulated to RWG by 30 July.

Market Trial commenced on schedule. Update to be provided.

Retail Hypercare continues with daily issue log and twice weekly meetings

Overall, the AEMO 5MS program is green, on track for 1 October. If issues arise that compromise Market Trial start dates, status will be reviewed

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Market Trial & Industry Testing Update

Tui Grant

Overall Status as at 29 July 2021

Overall RAG Status

🟢 Progress to date is on schedule.

- Switch to 5MS on 30 July will be completed on Thursday 29 July. Participants should validate the increased size of metering/settlement reports as a result of 5-minute granularity.
- The Final Statement for 2021Wk27 was been run on 28 July and is available to participants.
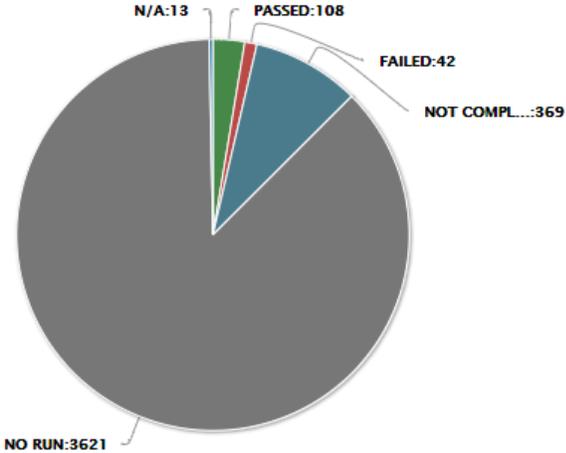- Participants shake out and initial test runs in progress.

Risk/Issue RAG Status

🟠 Amber risk status is due to End Date TNIs issue.

- This is expected to be resolved in advance of 5 August ahead of the transition preliminary invoice.
- No critical issues have been identified.

Test Case Summary

N/A:13   PASSED:108
FAILED:42
NOT COMPL...:369
NO RUN:3621

Key Risks – no change

Heightened risk of issues occurring early in the Market Trial as a result of:
- Testing of production defects in pre-prod
- Unexpected data/environment issues encountered following the refresh has required time to resolve
- Conflicting resource demands based on production support, Market Trial preparations and completion of testing including edge case

Defects Summary

Work In P...:1   assigned:2
Test Ready:2
Rejection...:1   new:3

See slide 5 for details
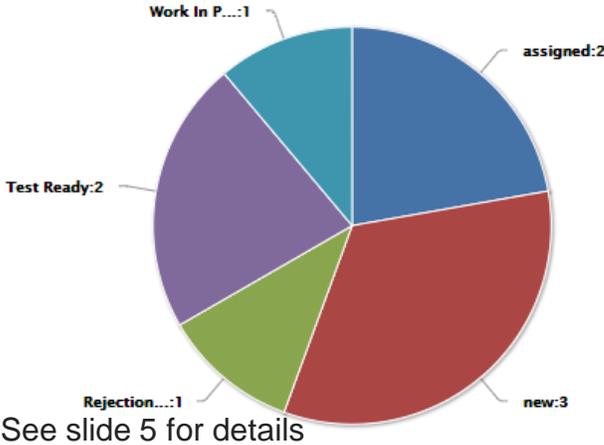
Key Issues – see slide 4

- End Date TNIs on track for resolution prior to the Prelim settlement run for 2021Wk31 which includes the transition week
- 5-minute pre-dispatch (5MPD) scenarios formulation error
- Large Volume NMI's Missing Trading Days in RM27

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Key Market Trial Business Functions

Stream	Action	Owner	TS #*	Status	Comment
Bidding	Verify successful submission of 5-min bids with varying underlying values	Generators	BD02, BD03	🟢	Preparations for this test have been complete. Participants will be able to submit 5-min bids with varying underlying values in pre-prod form 30 July 21.
Retail	Verify 5-min settlement (RM reporting) ,	Generators and Retailers	S02, S03	🟢	Single Day Profile issue has been resolved. 5-min RM reports will be available in pre-prod from 5 August.
Retail	Verify RM reports for UFE	Generators and Retailers	S02, S03	🟢	Impacted by End Date TNI issue.
Settlements	Verify transition invoice – prelim and final	AEMO to send and Gens and Retailers to receive	S08, S02, S03	🟡	Edge case testing not complete Impacted by End Date TNI issue
Settlements	Verify prelim for full 5-min week	AEMO to send and Gens and Retailers to receive	S02	🟢	Green
Overall status				🟢	Overall status is green, acknowledging that there is a heightened risk profile.

Issues that may impact Market Trial

No.	Title	Description	Comment/Status
1	End Date TNIs	Some end dated TNIs are incorrectly being included in the RM40 file. Impact: UFE volumes will be incorrectly reported for those TNIs in the settlements statements	Workaround in place. Defect 5316 in Retail Issues Log.
2	Single day profile	PAE will only run for a minimum of 4 days Impact – the RM reports for the 5-min time period will overlap with the 30-min. Overlap won't be reflected in the settlement statements but will make it difficult to reconcile with the RM report	Closed
3	5-minute pre-dispatch (5MPD) scenarios formulation error	The scenario offsets that were intended to be applied at the start of each 5MPD scenario have instead been applied cumulatively to each interval over the forecast horizon.	AEMO is currently remediating this as a priority. Pre-prod release is expected in mid-August. Also raise as a Defect 50 (next slide).
4	Large Volume NMI's Missing Trading Days in RM27	Production issue INC0073410 is present in pre-prod. Participants using these reports to reconcile Settlement Statements are potentially affected.	Fix will be deployed during outage period on Thursday 29 July. Prod fix was deployed on 28 July. Defect 5349 in Retail Issues Log.

Potential Defects Raised through Market Trial as at 29-Jul-21

ID	Description	Priority	Comment/Status
48	B2M - Tack not received for MTRD transaction.	Medium	Issued resolved.
49	Not receiving CATS Notifications for in any of Mondo Participant Outboxes	N/A	Defect rejected
50	AEMO Prod & Pre-prod issue with 5-minute pre-dispatch (5MPD) scenarios	Medium	AEMO is currently remediating this as a priority. Pre-prod release is expected in mid-August.
51	Bug reported from test: A6 Confirm folders are empty and there are no stop files	Medium	Issued resolved. Defect is being caused by throttling. AEMO is preparing to remove throttling.
52	Settlement reports received on 27 July are in schema v35 even though we have set our participants to v39_p1	Medium	There is currently an issue in pre-prod where the participant preferences in EMDM might not have been synced with MSATS. This only effects submission of meter read files and reports. Fix expected 30 July.
53	Data in MSATS loaded and displayed at "Register Level" where NMI Datastream is still "Net"	New	New Under investigation
54	NC02-UE-ALINTA- B2B Service Order TranAck didn't get processed as B2B handler got turned off	High	Expected fix 30 July
55	NC02-UE-ALINTA- B2B Service Order TranAck didn't get processed as B2B handler got turned off	N/A	Closed – duplicate of 54.
56	MSATS Pre-prod - Unable to use search hub transaction log in the B2B Brower	New	Under investigation
57	No Tran Ack Received for Meter data sent out and no MDN received	New	Under investigation
58	Actual Data with "N1" datastream replaced with "E1" and "B1" channel Substituted data in MSATS	New	Under investigation

Essential Meter Progress & Risk/Contingency

- There are 3,805 meters which have been classified as 'essential' for the introduction of the 5MS Rule

  - Bulk Supply Points (connecting transmission and distribution networks)

  - Generators

  - Interconnectors

  - SGAs

- 1,048 (~28%) of these meters are currently being reported as not being 5min capable

  - 205 - Bulk supply point meters

  - 201 - Generator meters

  - 1 - Interconnector

  - 641 - SGAs

- While only 3 upgrades are currently scheduled for Sept, 2 MPs have recently advised AEMO that current Covid restrictions, in Sydney and between States, are impacting their ability to upgrade their remaining sites i.e. site visits will need to be pushed back

- Should one or more of the remaining meters not be 5min capable by 1 Oct, AEMO's ability to settle the wholesale market may be compromised

Current Situation – Essential Meter Rollout

(Based on meter level plans provided by MPs)

Category	Total Meters	5min Capable	Scheduled for July	Scheduled for August	Scheduled for September
Bulk Supply Points (transmission to distribution)	2107	1914	99	94	
Generators	943	742	172	26	3
Interconnectors	9	8		1	
SGAs	692	51	35	606	
Transmission Connected Customers	57	45	12		
Total Meters	3808	2760	318	727	3
% of Total Meters		72.48%	8.35%	19.09%	0.08%

Note:
- Updates from MPs will be requested periodically to confirm progress
- Number of essential meters may change due to changes in underlying MSATS standing data e.g. changes associated to the physical removal of a meter

5MS Go-Live Plan

Greg Minney

5MS rule Commencement / Go Live

- Key Timings:
  - Market Start Notice 1 September
    - Will confirm 1 October rule Commencement
    - If a no-go decision is provided, the Go-Live Plan will be applicable to the alternative commencement date provided by the AEMC
  - 30 September – Final Migrations for Retail Platform (timing TBC)
  - 1 Oct – rule Commencement
    - Submission of 5 minute granularity bids
    - Reject 30 minute bids
    - All Interval Meter delivered to AEMO in MTRD / MDFF format

Principles / Approach

- Capability required for participant implementation in production prior to 1 Oct
  - Allows participant implementation prior to 1 October, depending on individual go-live plans
  - Final releases on 30 September to:
    - Activate those components that cannot be enabled earlier, such as production of UFE reports,
    - Restrict those components that must cease as at 1 October, rejection of interval meter reads in MDMT format
  - Where possible commencement of capability is activated based on configuration of prescribed dates, such as acceptance of 5 minute profile bids therefore not requiring software release for activation
- No data conversion required at go-live
- Participants responsible for the implementation of their contingency approaches to ensure appropriate market interaction

Communications and Support

- Market start notice on 1 September will be issues through 5MS mailbox and will confirm 1 October commencement

- Communications via established channels (Support Hub and 5MS Mailbox) for Retail releases

- The outage period will be significantly shorter than that for the Retail go-live weekend. AEMO understands that updates during the outage period is valuable to participants and will build status updates into the comms plan that are in line with the outage period

- Support to continue through established Support Hub Processes

- AEMO to consider elevated support during go-live period:
  - Support hub capacity
  - "war room"

- Daily Q&A / Issue management sessions to be implemented post go-live for as long as required

- Next steps: AEMO will continue to review participant feedback on the comms and support for the Retail Go-Live to fully develop the support approach for 1 October.

Rule Commencement Contingency

- In line with market start notice rule will commence on 1 October
- 5MS capability compliant with NER is available in the production environment ahead of 1 October:
    - All retail capability to receive 5-minute metering data from compliant has been available since 21 June
    - 5-minute bidding service can currently receive 5-minute bids and is configured to receive 5-minute profile bids from the 1 October
    - Rejection of 30-minute bids has been configured into the existing 30 minute bidding service

Go-Live Plan review

- Draft Industry Go-live plan issued for review / comment

- Comments due 15th August

- Final reissue 27th August

- Walkthrough and Q&A – 1st Week September – Post market start notice issue

MTP Update

Blaine Miner

MTP Update

Activities Now Deemed Completed

Description	Date	Activity ID
MPs to install or reconfigure meters as required (tranche 1)	By 31 July 2021	A4, A9, A14, A20
MPs to update the Meter Read Type codes with RWDA	By 31 July 2021	A4a, A9a, A14a, A20a
MPs to apply for data storage exemptions as required	By 31 July 2021	A5, A10, A15, A21
DNSPs to provide cross boundary information to AEMO to enable the determination of TNI2 values	By 31 July 2021	A97c

Upcoming MTP Transition End Dates

Description	Date	Activity ID
MDPs to ensure all Sample meters have a Datastream type code of 'P' and are attached to a Profile	By 31 August 2021	A119
MDPs to update VIC TUoS Datastream type codes from 1-4 to 'I' or 'N' as required	By 31 August 2021	A120
MDPs to create/activate export and import (active (kWh) and reactive (kVarh)) energy datastreams in CNDS table	By 31 August 2021	A36, A40, A45, A51
MDPs to update Type 7 datastreams in MSATS	By 31 August 2021	A83
MCs, for any registered 'Special Site' (as defined in the 'Special Sites and Technology Related conditions within the National Electricity Market Version 1.2) or any Logical NMI, update and distribute algorithms adjusted for introduction of 5 minute interval length to AEMO, FRMP and LNSP for approval.	By 31 August 2021	A31
MPs to complete data cleanse to ensure, the RegisterID matches the content of the 'Suffix' within the CATS_REGISTER_IDENTIFIER table. E.g. 'E1', 'B1', 'Q1', 'K1', etc.	By 31 August 2021	A36a, A40a, A45a
DNSPs and AEMO - Cross boundary supplies: create cross boundary NMIs, datastreams and registers; DNSPs to provide cross boundary information to AEMO; AEMO to provide TNI2 values; DNSPs to update TNI fields with TNI2 values	By 31 August 2021	A95, A96, A97, A95b, A97a, A97b
DNSPs, MDPs and MPs - Create NCONUML NMIs, datastreams and registers	By 31 August 2021	A99, A100, A101
DNSPs and AEMO - Update NMIs with new NMI Classification codes	By 31 August 2021	A103, A105, A107, A109, A111, A113, A115

Upcoming Readiness Survey

Blaine Miner

Readiness reporting – 2021 schedule

Readiness reporting	Survey released	Survey responses due	Distribute results	Discuss at RWG meeting	Discuss at PCF	Discuss at EF
Round #9	04-Aug-21	13-Aug-21	27-Aug-21	07-Sep-21	19-Aug-21	02-Sep-21

- The final readiness survey will be released Wednesday 4th August, with the final report being distributed on Friday 27th August.

- A number of questions updated to reflect time periods and final survey prior to rule commencement

- Result will form key input to the market start notice

Readiness assessment

ESSENTIAL CAPABILITY

AEMO Capability

Metering Platform: Is deployed and has stable business operation

Settlements Platform: Is deployed and has stable business operation

Bidding Platform: The 5-minute bidding and dispatch solution, including the web bidding interface is deployed and has stable business operation.

Essential metering

All essential meters* are able to produce and store 5-min data

All essential meters* are able to deliver 5-min metering data

Bidding

Generators and MNSPs are able to submit 5-min offers

CRITERIA

Metering Platform:
• Receive and process 5 minute metering data.
• Support 5 Minute Profiling / UFE

Settlements Platform: Support 5 Minute Settlement processes

Bidding Platform:
• Support 5 Minute Bidding Services
• Provide 5 Minute Bidding interface

MP's upgraded ensured that essential meters are capable of providing 5 minute metering data

MDPs are able to provide 5 minute metering data for essential meters for settlement

Generators are capable of providing 5 minute bids

SUPPORTING ASSESSMENT

Market Trial | Production Operation

Market Trial | Independent Certification | Production Operation

Market Trial | Production Operation

Market Trial | Metering Data Delivery | Meter Rollout Plans & reports, MTP delivery | Participant Readiness Reporting

Market Trial | "Transition bidding" | Participant Readiness Reporting

OTHER PARTICIPANT CAPABILITY	CRITERIA	SUPPORTING ASSESSMENT		
Retailer — Capability to operate retail functions in place	• Receive and process 5-minute metering data • Receive and process 5-minute Settlement statements	Participant Readiness - Reporting	Market Trial	Bi Lateral Testing
DNSP — Metering and Standing Data capability in place to support GS and 5MS	• Receive and process 5-minute metering data	Participant Readiness - Reporting	Market Trial	Rollout Plans & reports, MTP delivery / Bi Lateral Testing
TNSP — Metering and Standing Data capability in place to support GS and 5MS	• Provide GS Metering and Standing Data updates (inc. NCONUML)	Participant Readiness - Reporting	Market Trial	Rollout Plans & reports, MTP delivery / Bi Lateral Testing
MDP — Metering Data delivery compliance requirements met	• Provide 5-minute Data T1-3 Distribution connected metering data • Provide T1 Basic Metering Data • Provide MDFF Interval Data / Inc	Participant Readiness - Reporting	Market Trial	Rollout Plans & reports, MTP delivery / Bi Lateral Testing
MP — Meter upgrade compliance requirements	• Provide 5 Minute metering Data (4, 4A, VicAMI) • T1-3 distribution connected meters capable of producing 5-minute Data	Participant Readiness - Reporting	Market Trial	Rollout Plans & reports, MTP delivery
Generator — Generators and MNSPs are able to submit 5-min offers	• Submit 5-minute bids • Process 5-minute settlement and metering data	Participant Readiness - Reporting	Market Trial	"Transition bidding"

Key Criteria for Market Start

- Market start notice will be based on output of readiness assessment:
  - Market Critical Key Business Functions in support of AEMO 5 minute capability
  - Production operation includes stable operations
  - Metering readiness based on participant reporting including market trial, rollout plans and established contingency approaches
  - Generation capability based on participant reporting, market trial results and availability of transition bidding

- Other Participant capability
  - Taken in account based on supporting assessment – and against systemic risk to market outcomes

Bidding / Dispatch
Staging, Pre-production & Production timelines

No changes

STAGING

01 Oct 2021

For business continuity reasons, 30-mins offers and bids will be accepted until 01 Oct 21

PRE-PRODUCTION

29 Nov 2020 | 30 Jul 2021

PRODUCTION

01 Apr 2021 | 01 Oct 2021

LEGEND

LEGACY	BIDDING TRANSITION	5MS RULE
30-minute bidding only via: • FTP (txt) • Web Bidding (Legacy)	**30-minute bidding via:** • FTP (txt) • Web Bidding (Legacy) **5-minute bidding* via:** • FTP (JSON) • Web Bidding (5MS) • API **Each 5-minute bid within each half hour must be identical, giving the same effect as the submission of a 30-minute bid.*	**5-minute bidding* only via:** • FTP (JSON) • Web Bidding • API **30-minute bid emulation restriction lifted*

Systems Workstream – Dispatch & Operations

Changes Highlighted

5 MINUTE SETTLEMENT SYSTEMS TRACKING	TIMING									
	Internal HLIA	Focus/Group	SWG Engagement	External HLIA	Draft Tech Spec	Final Tech Spec	User Guides	5MS Staging	Preprod	Production
DISPATCH and OPERATIONS										
PACKAGE 1 - Bidding FTP and API										
Transition	Aug-18	Oct-18	Aug-18	Nov-18	Dec-18	2-Apr-19	31-Oct-19	29-Nov-19	30-Nov-20	01-Apr-21
Bidding Data Model	Aug-18	-	Sep-18	Mar-19	Dec-18	2-Apr-19	31-Oct-19	29-Nov-19	30-Nov-20	01-Apr-21
Bidding Format	Aug-18	-	Sep-18	Nov-18	Dec-18	2-Apr-19	31-Oct-19	29-Nov-19	30-Nov-20	01-Apr-21
PACKAGE 2 - Bidding Web UI										
Bidding Web UI and APIs	Aug-18	Nov-18	Dec-18	Jan-19	Mar-19	31-Jul-19	16-Dec-19	29-Nov-19	30-Nov-20	01-Apr-21
PACKAGE 3 - Dispatch, Pre-dispatch and PASA										
Dispatch	Aug-18	-	Oct-18	Nov-18	Oct-18	2-Apr-19	-	29-Nov-19	30-Nov-20	01-Apr-21
Predispatch P30/7DAY	Aug-18	-	Oct-18	Nov-18	Oct-18	2-Apr-19	-	29-Nov-19	30-Nov-20	01-Apr-21
Pre-dispatch P5 - Fast Start Inflexibility Profile	Nov-18	Jan-20	Nov-18	Jan-20	May-20	10-Nov-20	-	-	01-Apr-21	07-Jul-21
5MPD - Price Sensitivities	-	Jan-20	Nov-18	Jan-20	May-20	10-Nov-20	-	-	16-Jun-21	07-Jul-21
ST and PD PASA	Aug-18	-	Oct-18	Nov-18	Oct-18	2-Apr-19	31-Oct-19	29-Nov-19	30-Nov-20	01-Apr-21
PACKAGE 4 - Pricing and Miscellaneous										
Trading Price / Price Revision	Aug-18	-	Feb-19	Nov-18	Mar-19	31-Jul-19	-	15-May-20	**30-Jul-21**	01-Oct-21
Administered Pricing and CPT	Aug-18	-	Feb-19	Dec-18	Mar-19	31-Jul-19	-	15-May-20	**30-Jul-21**	01-Oct-21
Suspension Pricing	Sep-18	-	Feb-19	Dec-18	Mar-19	31-Jul-19	-	15-May-20	**30-Jul-21**	01-Oct-21
Negative Residue Management	Sep-18	-	Feb-19	Dec-18	Jun-19	31-Jul-19	-	15-May-20	-	-
RERT	Oct-18	-	-	-	-	-	-	-	-	-
PACKAGE 5 - Full Data Model										
Full Data Model	Sep-18	Ongoing	Ongoing	Apr-19	Ongoing	31-Jan-20	16-Mar-20	29-Nov-19	30-Nov-20	01-Apr-21

On track

Price Sensitivities

- Participants were advised that AEMO had discovered an error in the formulation for 5-minute pre-dispatch (5MPD) scenarios.
- The scenario offsets that were intended to be applied at the start of each 5MPD scenario have instead been applied cumulatively to each interval over the forecast horizon.
- AEMO ceased publication of 5MPD scenarios as of Thursday July 22 in Pre-Production and Friday July 23 in Production.
- We are making significant progress remediating the error, however, the necessary re-certification of the NEMDE formulation and the software will take time.
- We have the following indicative dates in relation to the new version -
    - Pre-Production – Friday August 20
    - Production – Wednesday September 22
- Note - Publication of the 5MPD base case, including fast start inflexibility profiles, was unaffected by this change.
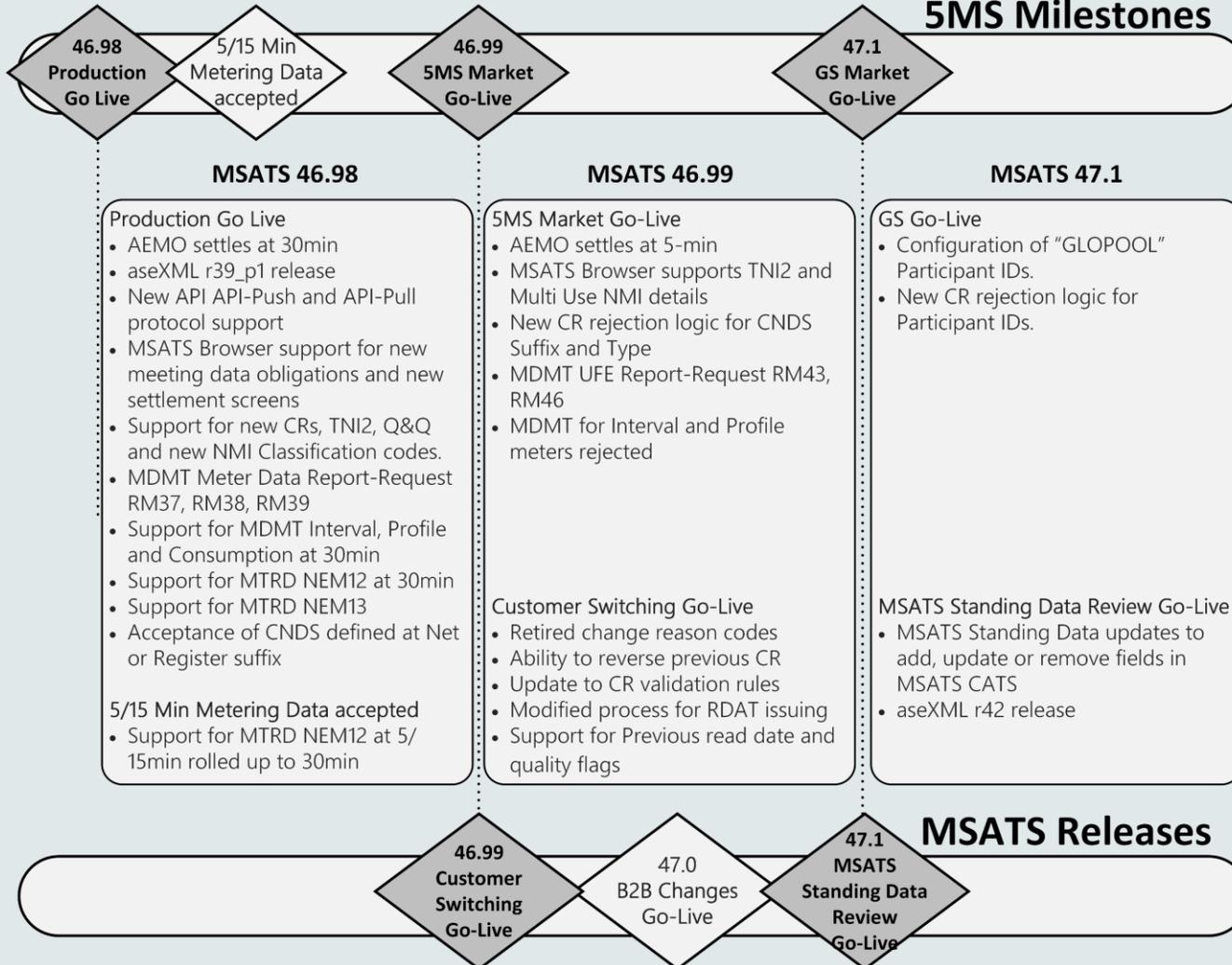
Retail Update

Jim Agelopoulos, Simon Tu & Paul Lyttle

Retail Functionality: MSATS 46.99 and 47.1

5MS Milestones

46.98 Production Go Live → **5/15 Min Metering Data accepted** → **46.99 5MS Market Go-Live** → **47.1 GS Market Go-Live**

MSATS 46.98

Production Go Live
- AEMO settles at 30min
- aseXML r39_p1 release
- New API API-Push and API-Pull protocol support
- MSATS Browser support for new meeting data obligations and new settlement screens
- Support for new CRs, TNI2, Q&Q and new NMI Classification codes.
- MDMT Meter Data Report-Request RM37, RM38, RM39
- Support for MDMT Interval, Profile and Consumption at 30min
- Support for MTRD NEM12 at 30min
- Support for MTRD NEM13
- Acceptance of CNDS defined at Net or Register suffix

5/15 Min Metering Data accepted
- Support for MTRD NEM12 at 5/15min rolled up to 30min

MSATS 46.99

5MS Market Go-Live
- AEMO settles at 5-min
- MSATS Browser supports TNI2 and Multi Use NMI details
- New CR rejection logic for CNDS Suffix and Type
- MDMT UFE Report-Request RM43, RM46
- MDMT for Interval and Profile meters rejected

Customer Switching Go-Live
- Retired change reason codes
- Ability to reverse previous CR
- Update to CR validation rules
- Modified process for RDAT issuing
- Support for Previous read date and quality flags

MSATS 47.1

GS Go-Live
- Configuration of "GLOPOOL" Participant IDs.
- New CR rejection logic for Participant IDs.

MSATS Standing Data Review Go-Live
- MSATS Standing Data updates to add, update or remove fields in MSATS CATS
- aseXML r42 release

MSATS Releases

46.99 Customer Switching Go-Live → **47.0 B2B Changes Go-Live** → **47.1 MSATS Standing Data Review Go-Live**

- 46.98 go-live – 21 June 2021
- 46.99 go-live relates to the 5MS Rule Commencement
- 47.1 relates to the Global Settlements Rule Commencement

Outbound filename / messageContextID

Situation

Participants have raised concern that userID is no longer part of the outbound Report Response file name.

After the June 21st eMDM go-live AEMO has applied the following messageContextID standards to all outbound MDMT files:

- `[TransactionGroup 0-9_a-z]{1,4} + [Priority h|m|l] + "_" + [FromParticipantID]{1,10} + "_" + [0-9_a-z]{1,18}`
  e.g. `"mdmtm_nemmco_210622234233069091.zip"`

Background

Pre-June 21st the MSATS MDM filename standard was:

- `mdmt + l/m/h + "_" + [userID]{1,15} + "_" + [0-9]{1,9}`
  e.g. `"mdmtm_nemmcobatch_123456789.zip"`
- Participant's use the userID in a filenames to:
    - Route files to the appropriate market system or business unit.
    - For MSATS Browser raised ReportRequest, to quickly identify the user who raised the Request.

Outbound filename / messageContextID

Proposal

AEMO to update the eMDM to name outbound MDMT files to the following standard:

- `mdmt + l/m/h + "_" + [userID]{1,15} + "_" + [0-9_a-z]{1,13}`
  e.g. "`mdmtm_nemmcobatch_b224f678b_26cn.zip`"

This would revert the file name for MDMT ReportResponses and MDMT MeterDataResponse to include userID again where:

- For an API/FTP initiated ReportResponse and MeterDataNotification, userID is the securityContext of the request.
- For a MSATS Browser initiated ReportResponse, userID is the browser user name.
- For a settlement initiated ReportResponse, userID is the value "nemmcobatch".

To protect the uniqueness of the eMDM filename the proposed eMDM outbound MDMT file name is a variation on the pre-June 21st MDMT file name in the following ways:

	Pre-June 21st mdmt file name	Proposed mdmt file name
Naming Standard	`mdmt + l/m/h + "_" + [userID]{1,15} + "_" + [0-9]{1,9}`	`mdmt + l/m/h + "_" + [userID]{1,15} + "_" + [0-9_a-z]{1,13}`
Uniqueness of the filename maintained by	9 Numeric characters	13 Alphanumeric characters and the "_" underscore character
Max characters exclusive of ".zip"	31 characters (max)	35 characters (max)
Example	`mdmtm_nemmcobatch_123456789.zip`	`mdmtm_nemmcobatch_b224f678b_26cn.zip`

PIR Feedback

Greg Minney

PIR Feedback

- Two responses were received through the request for PIR feedback at the RWG

- However, AEMO has been receiving additional feedback through the Retail Q&A group on the support process

- AEMO is also engaging bilateral with participants on ways to improve the post go-live support process

- These lessons learnt will be incorporated in the 5MS Industry Go-Live Plan where applicable

PIR Feedback Summary

Key improvement themes summarised:

- **Deployment fixes** (pre-cutover): faster deployment of fixes by removing the roadblocks or red tape preventing their deployment into the test environment. This includes having more AEMO staff available to support the process.

- **Issue clarification**: Would have liked insight into which issues were related to their systems and those issues that related to AEMO, which had a broader impact.

- **Communication** (during cut-over): more regular communication about the status of issues and what's happening. Also channels that allow interaction with others (i.e. AEMO directly and other participants.)

- **Incident Reporting** (post cutover): Provide ETA for incidences during Daily Incident Report and link incident numbers to issues.

- **Expectation setting:** Participants would have benefited from more detailed and coordinated planning to better set expectations on when the market would be "back to BAU" and therefore fully understand the extent of business (and potentially compliance) impacts.

- **BCP plans:** AEMO could have advised of a market wide BCP plan for urgent transactions during outage to reduce effort and ensure consistency.

What worked well:

- **Content of the Cutover Status Comms:** Clearly structured and easy to understand.

- **Post Cutover Support:** Good turn around time on the acknowledgement of support request to both 5MS inbox and the AEMO Support Hub.

- **Briefing sessions** - Good level of detail provided in the MDM Cutover briefing sessions and cutover schedule.
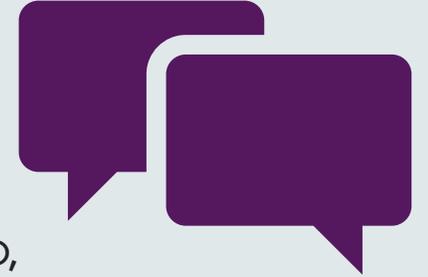
Next Steps

- AEMO to continue discussing feedback with participants and identifying actionable responses
  AEMO to incorporate feedback into 5MS Industry Go-Live Plan where applicable

- AEMO to submit feedback to AEMO EPMO team so that it can be incorporated across AEMO's other implementation programs

Forward Plan and Other Business

Greg Minney

Upcoming Meetings

AEMO | Program Calendar and Timelines

Current as at 27/07/2021

JULY

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Forums/Working Groups

- Executive (EF)
- Program Consult. (PCF)
- Systems (SWG)
- Readiness (RWG)
- Industry Testing (ITWG)

Focus Groups

- Transition (TFG)
- Market Trial (MTFG)

Other

- Information sessions
- Q&A session
- Industry Testing
- Training Session
- National Public Holiday
- State Public Holiday*

*Relevant state has been marked in a comment. WA, NT, TAS, ACT holidays have not been marked.

5MS/GS-related procedure change log

Procedure issue	AEMO Retail Systems Impact	Readiness Considerations
Consolidation of Retail Electricity Procedures.	• No impact to 5MS Retail systems.	N/A
Update to published settlement formulas*	• No impact to 5MS Retail systems.	N/A
Cross Boundary (CB) connections, inclusion of cross boundary energy formulas*	• No impact to 5MS Retail systems.	N/A
MDFF Specification NEM12 & NEM13 update to clarify MDP obligation where a NULL exists in their systems.	• No impact to 5MS Retail systems.	N/A
Clarification on existing requirements for the 5 minute load profile and RM reports	• 5MLP included in RM20 and RM25 reports	N/A
Proposed procedural change to MDFF quality flag (N flag)*	• Rejection of B2M MTRD MDFF meter reads where quality flag is 'N'. • Results in B2M MTRD Transactions with the status of 'Partial' or 'Rejected'.	Participant Mkt Systems must not send 'N' for B2B or B2M MTRDs.
Removal of end user details from inventory table	• No impact to 5MS Retail systems.	N/A
Removal of register ID = suffix requirement	• No impact to 5MS Retail systems.	Material participant readiness activity impact as the existing requirement is to be retained.

5MS/GS-related procedure change log – no change

Procedure issue	AEMO Retail Systems Impact	Readiness Considerations
Proposal for RWD	• No impact to 5MS Retail systems.	ReadTypeCode amended from 'Optional' to 'Required'. Fourth character added to identify whether a meter is capable of reading at five-minute granularity. 4th char field is already avail for data updates in PROD
TNI 2 for cross-boundary meters *#	• CATS CR support for TNI2 field. • MSATS Browser to support display TNI2 for NMI Discovery Transactions. • aseXML schema support extension to support TNI2 inclusion (r39).	TNI Code assigned, by AEMO, however Participants to undertake the generation of associated CR2xxx transactions, to register a cross boundary meter using TNI 2. Migration to r39 aseXML necessitated.
New NCONUML NMI Class codes available in list for SORD #	• Likely B2B schema change. • AEMO confirms that the Electricity B2B changes for v3.5 will be made available in pre-production in September or early October 2021. The changes will be in pre-production for a minimum of 4 weeks. • 5MS will have to merge the changes from Electricity B2B for the GS May 2022 release.	10-Nov-2021 effective date decided as part of the regulator implementation roadmap.

*raised by the 5MS Program
aseXML schema impact

5MS/GS-Related Procedure Change Log

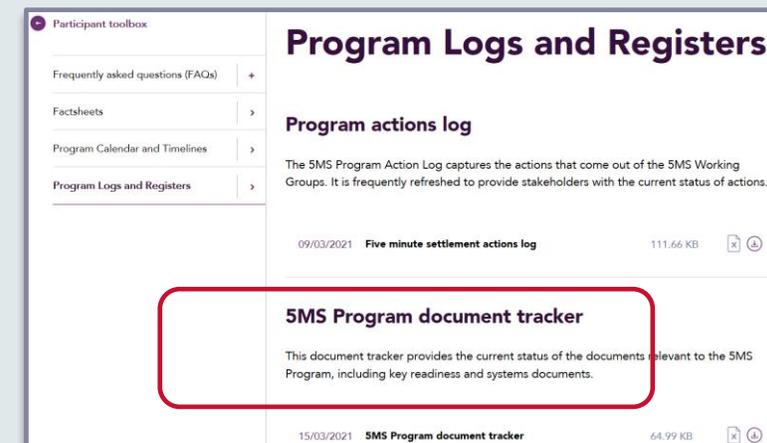| Procedure issue	Status	Final Determination Date
Consolidation of Retail Electricity Procedures Phase 1	AEMO published the Final Report on 28 June. Focusing on Oct-2021 requirements The consolidation of Procedures will not be a full consultation as the Procedures (BAU and 5MS/GS) have already gone through their respective formal consultations.	28-Jun-2021
Consolidation of Retail Electricity Procedures Phase 2	Expected to be published late 2021 Focusing on May-2022 requirements	31-Jan-2022

*raised by the 5MS Program
aseXML schema impact

Document tracker updates – in July 2021

- This page will appear in all RWG packs moving forward to represent the updates that were made to 5MS and GS documents for the month.

- This information is also captured within the **document tracker**, with recently updated documents highlighted in yellow.

Document/ Item	Version	Status	Type
MSATS 46.98 Technical Specification	5.01	Final	Metering
MSATS 46.98 Technical Specification (marked up version)	5.01	Final	Metering

Where is the document tracker located?

The document tracker is located in the Participant toolbox under the Program Logs & Register menu option.

Questions