MSATS 46.99 Technical Specification

1.021.00 March 2021

Release series: MSATSCS291021 & 5MSMETERINGJUL2021

Important Notice

PURPOSE & AUDIENCE

This document describes the technical changes required to participant's systems for the [Subject] (Release). The Australian Energy Market Operator (AEMO) provides this information as a service targeting business analysts and IT staff in participant organisations. It provides guidance about the changes to their market systems under the National Electricity Rules (Rules), as at the date of publication.

HOW TO USE THIS DOCUMENT

- If you have questions about the business aspects of these changes, please see Consultations on AEMO's website.
- The references listed throughout this document are primary resources and take precedence over this document.
- Unless otherwise stated, you can find resources mentioned in this guide on AEMO's website.
- Text in this format is a link to related information.
- **Text in this format**, indicates a reference to a document on AEMO's website.
- **Text in this format** is an action to perform in the MSATS Web Portal.
- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules and information or a term in this document, the Rules take precedence.
- Rules and Glossary Terms are capitalised and have the meanings listed against them in the **National Electricity Rules (NER)** and **Guide to MSATS and B2B Terms**.

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1.021.00 Initial publication

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The release of this document changes only the version of MSATS 46.99 Technical Specification.

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Contents

1. Introduction

This MSATS 46.99 Technical Specification (Release) describes the projects planned by AEMO from a participant perspective and includes changes related to participants' IT systems.

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1.1 Projects

1.1.1 5MS retail

The 5MS retail project has 3 separate MSATS releases:

1. MSATS 46.98 Technical Specification, covers the go-live of the MDM platform ahead of 5MS market start.

2. MSATS 46.99 Technical Specification (this document) covers the 5MS market start where AEMO settles the market at 5-minute intervals using settlements by difference and begins reporting on UFE.

3. MSATS 47.00 Technical Specification covers the Global Settlement go-live rule change.

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

MSATS 47.00

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

1.1.2 **5MS functionalities**

The 5MS MSATS 46.99 functionalities included in this release are:

Settlements	AEMO settles the Market by difference at 5-minute.	
MSATS Browser	MSATS Browser to support TNI2 and Multi Use NMI details.	
Standing Data and CRs	New CR rejection logic for CNDS Suffix and Type.	
Reports	Participants on r39_p1 schema can request new UFE reports RM43 and RM46 Inclusion of 5MLP in the RM20 RM25	
Transaction Types	MTRD	MDMT
30-minute Interval Readings	AEMO profiles 30-minute reads to 5 minutes	AEMO rejects 30-minute interval reads for Settlement dates prior to the 5MS Go Live Date. AEMO accepts retrospective 30-minute Interval reads for Settlement dates prior to the 5MS Go Live Date.

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1.1.3 NEM customer switching

4. Table 1 below outlines the Customer Switching changes for this Release. For more, see page 19.

5. For details about the aseXML changes for the Customer Switching project, see MSATS 46.98 Technical Specification.

6. For details about the project, see NEM Customer Switching Consultation.

Table 1 Customer switching changes

Change	Reference
Procedure change and rules changes	on page 7
Streamline Customer Transfers to enable an overnight switch	Retired Codes on page 19 Code Configuration Changes on page 23 Retail Transfer CR Specific Validation on page 37
Reduce complexity of Change Retailer Transactions and options	Retired Codes on page 19 Code Configuration Changes on page 23
Enable efficient reversal or cancelling of a previous Change Request. Each unique reversal process has a specific CR Code in MSATS	Retired Codes on page 19 Code Configuration Changes on page 23 Change Request Reversals on page 26
Improve transfer accuracy/reduce need for retrospective error corrections	Code Configuration Changeson page 23 Change Request Reversals on page 26 Retail Transfer CR Specific Validation on page 37
Allow transfers without actual reads	Retail Transfer CR Specific Validation on page 37 Processing of Request for Data Transfers on page 43

Change	Reference
Transfer on Actual Readings where customer requirement is retrospective	Code Configuration Changes on page 23 Retail Transfer CR Specific Validation on page 37 Previous Read Date and Quality Flags on page 44 Previous Read Date Validation on page 51
Provide listing of previous read dates to Retailers	Previous Read Date and Quality Flags on page 44 MSATS Web Portal on page 52
B2M aseXML schema r39_p1 changes	MSATS 46.98 Technical Specification

1.2   Status

Version	Status
1.02	Participants can commence system builds
1.00	Presents the MSATS 46.99 and Customer Switching designs at the time of publication. It may change as participants provide feedback and test. Please send feedback to supporthub@aemo.com.au.
0.21	For review and discussion only

1.3   Version numbers

Incremental version numbers such as 0.01, 1.01, 2.01 and so on mean a draft version or a small change to the technical specification.

Major version numbers such as 1.00, 2.00 means there are substantial changes to the technical specification. Participants must carefully review these changes, detailed on page 6.

AEMO releases new versions of this document as the technical requirements are streamlined.

1.4   Changes in this version

1.4.1   5MS retail

No changes.

1.4.2   Customer switching

1. Clarification for processing of request for data transfers on page 43 for the No RDAT issued process:

    MSATS identifies if **one** of the following scenarios exist:

    a. The CR is a CR1030 or CR1040.

    b. Has a Read Type Code of SP (Special Read).

    If a or b is identified, MSATS **issues** an RDAT.

    For all other scenarios, MSATS **does not** issue an RDAT.

2. Inclusion of the B2M schema r39_p1 and Release notes on page 10.

3. Clarification the pre-production environment is available for Customer Switching testing in Early July 2021 but the Staging environment is unavailable for Customer Switching on page 10.

4. Notice of a pre-production refresh in mid-June on page 10.

1.5   Audience

AEMO provides this information as a service targeting business analysts and IT staff in participant organisations.

1.6   Related resources

The following resources are related to this Release. They are primary resources and take precedence over this document.

Details	Type	Status
7.16.2 National Electricity Rules	Rules	Current
aseXML r39 Schema	Consultation	Final
MDFF Specification NEM12 NEM13	Procedure	Final
Metrology Procedures	Procedure	Current
MSATS Procedures – CATS Procedure Principles and Obligations v4.9	Procedure	Final but not effective
MSATS Procedures: Procedure for the Management of WIGS NMIs v4.9	Procedure	Final but not effective
National Energy Retail Rules	Rules	Current
NEM Customer Switching Consultation	Consultation	Final
Retail Electricity Market Glossary and Framework	Procedure	Final but not effective
7.16.2 National Electricity Rules	Rules	Current
MDFF Specification NEM12 NEM13	Procedure	Final
Metrology Procedures	Procedure	Current
MSATS 46.98 Technical Specification	5MS, Customer Switching schema, B2M aseXML schema r39_p1	Current

Details	Type	Status
MSATS 47.00 Technical Specification	Global Settlements (GS) Design	In progress
MSATS Procedures – CATS Procedure Principles and Obligations v4.9	Procedure	Final but not effective
MSATS Procedures: Procedure for the Management of WIGS NMIs v4.9	Procedure	Final but not effective
National Energy Retail Rules	Rules	Current
NEM Customer Switching Consultation	Consultation	Final
Retail Electricity Market Glossary and Framework	Procedure	Final but not effective

1.7   Schedule

1.7.1   5MS

For details about the 5MS deployment, see the Program Timeline on AEMO's website.

1.7.2   Customer switching

Customer Switching is scheduled for implementation in:
- Pre-production: Early July 2021
- Production: Thursday 30 September 2021
- Production effective date: Friday 1 October 2021

1.8   Approval to change

No approval or agreement to change required from participant change controllers.

AEMO sought approval in:
5.   NEM Customer Switching Consultation

6.   aseXML r39 Schema consultation

7.   AEMC's Five-Minute Settlement rule change

1.9   Proposed timeline

Milestone	Date	Description
Approval required	No approval required	See Approval to change on page 9
B2M schema change r39_p1	May 2021	Implemented as part of the 5MS MSATS 46.98 release For details, see MSATS 46.98 Technical Specification – 5MS – Meter Data The Customer Switching fields, Previous Read Date and Quality Flag are not utilised or populated until Thursday 30 September 2021 B2M schema change r39_p1 Release notes
Revised Technical Specification	If required	Published as required with further details of the changes to assist IT staff with their own technical implementation
5MS staging	In progress	https://msats.5ms.staging.test.marketnet.net.au/msats AEMO implements components of the Release in stages. Participant access is not restricted; however, the data content or system availability is not guaranteed For more details, see https://aemo.com.au/Electricity/National-Electricity-Market-NEM/Five-Minute-Settlement/Systems-Workstream/Staging-Environment
Customer Switching staging	Unavailable for Customer Switching	
Pre-production refresh	Mid-June 2021	Refresh of the pre-production system with data refreshed from the production system Exact details provided closer to the refresh
Customer Switching pre-production implementation	Early July 2021	AEMO implements components of the Release to pre-production for participant testing AEMO has full access to the system during this period Participant access is not restricted; however, the data content or system availability is not guaranteed
Customer Switching pre-production available	Early July 2021	Testing period begins for participants
User group meeting: pre-production review	Tentative Wednesday, 21 July 2021	Market systems user group meeting or joint 5MS industry forum to review the implementation of this pre-production release

Milestone	Date	Description
Customer Switching production implementation	Wednesday, 29 September 2021 Thursday 30 September 2021	AEMO implements the release to production
Customer Switching production systems available	Thursday 30 September 2021	Production systems available to participants Customer Switching MSATS Procedures 4.9 become effective
User group meeting: post-implementation review	Tentative Friday, 15 October 2021	Market systems user group meeting or joint 5MS industry forum to review the implementation of the production release

2. 5MS Retail

2.1 Market Settlements

The 46.99 release covers the 5MS market start where AEMO settles the market at 5 minutes using settlements by difference.

2.2 NMI standing data changes

Type	Description	Action
NMI Datastream Type	Addition of Configuration list of first Suffix characters that can be registered in the NMI Data Stream Suffix field	New
NMI Datastream Type	Inactivation of '1' code used for Vic TUOS Datastreams	Retire
NMI Datastream Type	Inactivation of '2' code used for Vic TUOS Datastreams	Retire
NMI Datastream Type	Inactivation of '3' code used for Vic TUOS data streams	Retire
NMI Datastream Type	Inactivation of '4' code used for Vic TUOS data streams	Retire

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2.3 Change requests

For 5MS, the primary modifications to Change Requests relate to NMI Standing Data changes and new Rejection logic for NMI Data Stream Suffix Registration.

Change request	Action
2500	Add
2501	Add
2520	Add
2521	Add
3080	Add

Change request	Action
3081	Add
3090	Add
3091	Add
4000	Add
4001	Add
4004	Add
4005	Add
4050	Add
4051	Add

2.3.1 Change request validation

Logic is introduced to reject the creation of Datastreams where an invalid Datastream Suffix, Type, or Profile Name is assigned. Below is a list of valid values for each field.

Suffix	First character	Second character	Datastream
Interval	A-H, J-N, P-Z	1-9, A-H, J-N, P-Z	Profile name must equal NOPROF
Basic	1-9	1-9, A-H, J-N, P-Z	Must NOT equal NOPROF

2.4 Datastream types

2.4.1 Interval

		First character							2nd character
	Ave	DatastreamType	Master	DatastreamType	Check	DatastreamType	Net	Datastream Type	
IMPORT kWh	A	I or N for Virtual NMI's	B	I or N for Virtual NMI's	C	N	N	I or P	Meter numbers or measuring elements are to be 1-9 then A-H, J-N, P-Z
EXPORT kWh	D	I or N for Virtual NMI	E	I, P or N for Virtual NMI's	F	N			
IMPORT kvarh	J	N	K	N	L	N	X	N	
EXPORT kvarh	P	N	Q	N	R	N			
KVAh	S	N	T	N	U	N			
Power Factor pF			G	N					
Q Metering Qh			H	N	Y	N			
Par Metering parh			M	N	W	N			
VOLTS (or V²h) or Amps (A²h)			V	N	Z	N			

Net & Register Interval CNDS Records

2.4.2 Basic

	First Character		Second Character	Datastream Type
Accumulation Register Level CNDS Records	1	First Datastream	Meter numbers are to be 1-9 then A-H, J-N, P-Z.	C
	2	Second Datastream		
	3	Third Datastream		
	4	First controlled load Datastream		
	5	Second controlled load Datastream		
	6	Third controlled load Datastream		
	7	First LNSP/ENM defined Datastream		
	8	Second LNSP/ENM defined Datastream		
	9	Third LNSP/ENM defined Datastream		

2.5 Reports

2.5.1 RM20 – Profile shape data report

1. Addition of the new 5-minute profile for 15- and 30-minute interval reads.

2. The 5MLP profile allows Participants to profile 15/30-minute Metering Data to 5-minute Trading Intervals using the System Load Profile via the Percentage Profiling method works, described in the Metrology Procedure: Part B 12.4.

2.5.2 RM25- Settlement profile shape data

Purpose: Provides the Profile Shape Data to participants with the profile shapes frozen by AEMO.

AEMO automatically produces this report and publishes it to the AEMO website.

Changes Include:

- Addition of the new 5-minute load profile (5MLP) for profiling 15- and 30-minute interval reads to 5-minute Trading Intervals.

2.5.3 RM43 - UFE factor values by local area

Purpose	Provides the factor profile of each interval within each Local Area for each Settlement run.
Content	Calculation of UFE factor profile as part of the Settlements process for each Local Area Settlement Day.
Context Type	UFEFactorValuesByLocalAreaParameters

Role	FRMP, LNSP
Created	Pushed at the end of each Settlement run. AEMO, FRMP, and LNSP participants can pull the report.
Delivery	Participants preferred method.
Manual request	Requested after each Settlement run using one of the request methods.
Format	csv wrapped within the Market standard aseXML.
User rights entity	RM43 - UFE Factor Values by Local Area

RM43 Report parameters

Field	Description	Example	Requirement
CaseID	Settlements Case ID	6666	Mandatory
Local Area	Name of Local Area	ACTEWAGL	Mandatory

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RM43 output

Field Name	Description	Example Data
Case ID	Settlement Case ID	6666
Settlement Type	Settlement Type	F
Local Area	Local Area	ACTEWAGL

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Field Name	Description	Example Data
Settlement Date	Date of Settlement	2019/02/06
Creation Date	Date of Settlement Run	2019/02/09
Period001	Value for Period 001	0.06661
Period002	Value for Period 002	0.06463
Period......	Value for Period nnn	n.nnnnn
Period288	Value for Period 288	0.06398
SeqNo	Row Sequence Number	1

Case Id	Settlment Type	Local Area	Settlement Date	Created Date	Period 001	Period 002	Period 003	Period 004	Period 005	Period 006	Period 007	Period 008	Period 009	Period 010	Period 011	Period 012	Period 013	Period 014	Period 015	Period 0
6666	F	ACTEWAGL	25/12/2019	01/01/2020	0.06661	0.06463	0.06395	0.06395	0.06660	0.06467	0.06394	0.06399	0.06660	0.06472	0.06394	0.06404	0.06660	0.06471	0.06398	0.064
6666	F	ACTEWAGL	26/12/2019	01/01/2020	0.06658	0.06503	0.06392	0.06435	0.06657	0.06507	0.06391	0.06657	0.06512	0.06391	0.06444	0.06657	0.06516	0.06391	0.064
6666	F	ACTEWAGL	27/12/2019	01/01/2020	0.06655	0.06543	0.06389	0.06474	0.06655	0.06548	0.06389	0.06479	0.06654	0.06552	0.06388	0.06484	0.06654	0.06557	0.06388	0.064
6666	F	ACTEWAGL	28/12/2019	01/01/2020	0.06652	0.06584	0.06386	0.06515	0.06652	0.06588	0.06386	0.06519	0.06651	0.06593	0.06386	0.06524	0.06651	0.06597	0.06385	0.065
6666	F	ACTEWAGL	29/12/2019	01/01/2020	0.06649	0.06624	0.06383	0.06555	0.06649	0.06629	0.06383	0.06560	0.06634	0.06383	0.06564	0.06648	0.06638	0.06382	0.065
6666	F	ACTEWAGL	30/12/2019	01/01/2020	0.06646	0.06665	0.06381	0.06596	0.06646	0.06670	0.06380	0.06600	0.06645	0.06675	0.06380	0.06605	0.06645	0.06679	0.06380	0.066
6666	F	ACTEWAGL	31/12/2019	01/01/2020	0.06643	0.06707	0.06378	0.06637	0.06643	0.06711	0.06377	0.06641	0.06642	0.06716	0.06377	0.06646	0.06642	0.06721	0.06377	0.064

2.5.4 RM46 - UFE validation report

Purpose	Provides the details used to calculate the UFE and UFEF for each of each interval within each Local Area for each Settlement run.
Content	Calculation of UFE and UFE factor profile as part of the Settlements process for each Local Area Settlement Day.
Context Type	UFEValidationReport
Role	FRMP, LNSP
Created	AEMO, FRMP, and LNSP participants can pull the report.

Delivery	Participants preferred method.
Manual request	Requested after each Settlement run using one of the request methods.
Format	csv wrapped within the Market standard aseXML.
User rights entity	RM46 - UFE Validation Report

RM46 Report parameters

Field	Description	Example	Requirement
CaseID	Settlements Case ID	6666	Mandatory
Local Area	Name of Local Area	ACTEWAGL	Mandatory

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RM46 output

Field Name	Description	Example Data
Case ID	Settlement Case ID	6666
Settlement Type	Settlement Type	F
Local Area	Local Area	ACTEWAGL
Settlement Date	Date of Settlement	2019/02/06
Creation Date	Date of Settlement Run	2019/02/09
Data Type	Set of reads used in calculation	TME

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Field Name	Description	Example Data
Period001	Value for Period 001	0.06661
Period002	Value for Period 002	0.06463
Period......	Value for Period nnn	n.nnnnn
Period288	Value for Period 288	0.06398
SeqNo	Row Sequence Number	1

Case Id	Settlement Type	Local Area	Settlement Date	Created Date	Data Type	Period 001	Period 002	Period 003	Period 004	Period 005	Period 006	Period 007	Period 008	Period 009	Period 010	Period 011	Period 012	Period 013	Period 014	Period 0
6666	F	ACTEWAGL	25/12/2999	01/01/3000	TME	59280.00000	55440.00000	54360.00000	53640.00000	51240.00000	50520.00000	48360.00000	47760.00000	48840.00000	51840.00000	55800.00000	58440.00000	62880.00000	67680.00000	53320.000
6666	F	ACTEWAGL	25/12/2999	01/01/3000	DDME	5750.16000	5377.68000	5272.92000	5203.08000	4970.28000	4900.44000	4690.92000	4632.72000	4737.48000	5028.48000	5412.60000	5668.68000	6099.36000	6564.96000	5160.400
6666	F	ACTEWAGL	25/12/2999	01/01/3000	ADME	52895.54400	49469.11200	48505.42800	47862.97200	45721.45200	45078.99600	43151.62800	42616.24800	43579.93200	46256.83200	49790.34000	52146.01200	56107.82400	60390.86400	47470.360
6666	F	ACTEWAGL	25/12/2999	01/01/3000	UFE	634.29600	593.20800	581.65200	573.94800	548.26800	540.56400	517.45200	511.03200	522.58800	554.68800	597.06000	625.30800	672.81600	724.17600	569.240
6666	F	ACTEWAGL	25/12/2999	01/01/3000	ADMELA	53027.78286	49592.78678	48626.69157	47982.62943	45835.75563	45191.69349	43259.50707	42722.78862	43688.88183	46372.47408	49914.81585	52276.37703	56248.09356	60541.84116	47589.035
6666	F	ACTEWAGL	25/12/2999	01/01/3000	UFEP	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.01196	0.011	

2.5.5 New RM reports

Report	Entity	Type
RM43 - UFE factor values by local area	RM43 - UFE Factor Values by Local Area	Interactive
RM46 - UFE validation report	RM46 - UFE Validation Report	Interactive

2.6 5MS user rights access

This section explains the entities Participant Administrators (PA) use in the MSATS Web Portal to control Participant User access to the new functionalities.

> **For help with participant administration, see Guide to User Rights Management (URM).**

3. Customer Switching

AEMO worked with the AEMC and COAG to recommend, prepare, and design improvements to the customer switching process. The new process streamlines existing processes and improves retail market competition.

3.1   Principles

- A simple, easy, and prompt customer switching process for End-use Customers.

- Streamlined and transparent procedures.

- Certainty for participants.

- Obligations for parties are clear, enforceable, and reportable.

- Regard for the implementation and ongoing costs.

- The design and associated rule changes consider:

    - Customer protection issues, including billing and contract information.

    - Energy billing, settlement, and enforcement arrangements, including reporting of breaches to the AER.

3.2   New process

- Allows customers to transfer Retailers within two days.

- Has regard for the proper time frames for notification and Meter read options. For example, the Previous Read Date and Quality Flag received in MSATS by the MDP, substitute reads, and smart Meter reads.
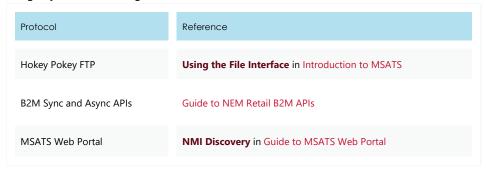
3.3   Solution

To fast track the Customer Switching process, there are several options available and the new Retailer may require the Previous Read Date and Quality Flag, so they are supplied:

1. As part of the Type 2 NMI Discovery search.

2. In a NMI Standing Data Response.

3. Only if the requesting ParticipantID is a valid Initiating participant.

Participants can also switch on an estimated read if they want to transfer on a Prospective date and that Prospective date does not align with a read date.

The Previous Read Date and Quality Flag are available from a Type 2 NMI Discovery Search using any of the following interfaces:

Protocol	Reference
Hokey Pokey FTP	**Using the File Interface** in Introduction to MSATS
B2M Sync and Async APIs	Guide to NEM Retail B2M APIs
MSATS Web Portal	**NMI Discovery** in Guide to MSATS Web Portal

3.3.1   Change requests

Change Requests have the following changes:

- Error correction Change Requests are reduced.

- Change Request Reversals are added.

- For some CRs, the MDP provides the substituted Metering Data to the previous FRMP for billing and forward estimated data to the new FRMP.

3.4 Retired codes

The following codes retire at the completion of this Release and are no longer available for use in Change Requests (CRs). Removal of these codes means participants can no longer raise these types of change requests.

To assist with the management of in-flight transactions, AEMO publishes the C1 report with effective dates appropriate to publication go-live, and effective date +90 days.

3.4.1 Retired change reason codes

Event	CR	Description	Initiating participant
Change Retailer	1021	Error Correction – Missed CR 1500 (SMALL NMI only)	
	1022	Incorrect transfer date	
	1024	Transfer missed (SMALL NMI only)	
	1026	Cooled Off	
	1027	End User Moves Out on or before CR completion date	
	1028	Non-account holder signs contract	New FRMP
	1080	Change Retailer – Child NMI	
	1081	Change Retailer – Child NMI – Retrospective Align Meter Reading	
	1082	Change Retailer Child – Retrospective Long Term/Error	
	1083	Change Retailer Child NMI – Move In	
	1084	Change Retailer Child NMI – Move In – Retrospective	

3.4.2 Retired read type codes

Code	Name of code	Description of code
CR	Consumer Read	Available if approved by jurisdictional policy. Advice from the new FRMP to the MC or MDP that the end user has agreed to transfer on a Meter reading it provides. The MDP/MPC is not required to undertake a special Meter reading. Applies to type 6 Metering Installations.
ER	Estimated Read	Available if approved by jurisdictional policy. Advice from the new FRMP to MDP that the end user has agreed to transfer on an estimated reading. No Meter reading is required for this transfer. The MDP is to provide an estimated reading in accordance with the **Metrology Procedures** and any other jurisdiction requirements. Applies to type 4A, 5 and type 6 Metering Installations.
NS	Next Scheduled Read Date	Advice from the new FRMP to the MDP the Proposed Change Date for the end user transfer is the NSRD, which is a date in the future. No other Meter reading is required. An acceptable date is a window that is up to 3 Business Days before or 2 Business Days after the published NSRD. If the date proposed by the New FRMP is not within this same window (i.e. up to 3 Business Days before or 2 Business Days after), the MDP must advise the FRMP there is a problem with the date proposed within 2 days of receipt of the data request. If the Meter is read outside this window, the MDP is not obliged to provide an Actual Change Date CR 1500. Applies to types 4A, 5 and type 6 Metering Installations.

3.4.3 Retired objection code

Code	Description
DEBT	Used by the current FRMP for change retailer requests in Victoria only, where there is an aged debt reaching Jurisdictional limits.

3.5 Code configuration changes

There are configuration changes only for the following existing Change Retailer Change Reason Codes. There are no enumeration changes.

Participants can find codes and rules in the MSATS Web Portal > Administration > Codes Maintenance and Rules Maintenance.

Change Reason Code	Description
1000 – Change Retailer	The date of transfer is on a: - Prospective Day – a date nominated by the new FRMP for a meter reading, a substituted reading, or a Special Read, as defined by the Read Type Code. - Retrospective Day – a date nominated by the new FRMP. The Metering Data Type must be Remotely Read.
1010 – Change Retailer (SMALL only)	The date of transfer is the date of a Previous Meter Reading (a Retrospective Day). The Metering Data Type must be Manually Read.
1020 – Change Retailer – Retrospective – Long Term/Error (Not SMALL)	The date of transfer could be a date agreed between the Current FRMP and New FRMP (a Retrospective Day) where the actual transfer date was in error. In Victoria only, the date of transfer could be a date agreed by the Current FRMP and the New FRMP (a Retrospective Day)

Change Reason Code	Description
1030 – Change Retailer – Move-In	The date of transfer (move-in) is on a Prospective Day.
1040 – Change Retailer – Move-In – Retrospective	The date of transfer (move-in) is on a Retrospective Day.

3.6   Error Codes

The following new error codes are introduced as part of Customer Switching and updated in the MSATS Web Portal > Codes Maintenance > Error Codes table.

You can also find Metering Data error codes in the **Meter Data Validation Matrix**.

Code	Message	Problem	Reference
1008	The related CR does not exist with COM status	No records exist The CR to reverse must have COM status Reject transaction	Change Request Reversals > Preconditions on page 30
1009	The reversal CR code is invalid for the related CR	No records exist The CR reversible code is incorrect for this reversible CR Reject transaction	Reversal CR codes on page 27
1010	The related CR is not the last completed change	Other CRs were completed after this CR Reject transaction	Generic reversal process on page 30 > bullet point 2b
1011	The participant is not entitled to raise a CR	The initiating participant ID did not hold a role for the NMI Reject transaction	Generic reversal process on page 30

Code	Message	Problem	Reference
1012	The related CR has not been raised within the valid timeframe for reversal	The completion date of the related CR is older than the creation date of the reversing CR Reject transaction	Generic reversal process on page 30 > bullet point 2a
1013	The reversal CR contains inbound changes	Inbound records exist for this CR Reject transaction	Generic reversal process on page 30 Raised if the CR contains more data than required
1014	The related CR created new records	Changes were made after this CR Reject transaction	Generic reversal process on page 30
1015	The reversal date does not match the actual change date of the related CR	The reversing and related CRs do not have the same Actual Change Date Reject transaction	Generic reversal process on page 30 > bullet point 4
1016	The proposed change date does not align to a previous read date	The Proposed Change Date does not match the Previous Read Date Reject transaction	Previous Read Date (PRD) Validation on page 51 > section 3.11.2 PRD validation process
1017	Metering review required	Mixed Metering Types MSATS found multiple Metering Installation Types for a NMI	PRD and Quality Flag process on page 45 > 3.10.3 Mixed metering types
1018	There are no current meters installed for this NMI	No Meters or Meter Register Statuses for this NMI	Quality Flags > No active meter on page 51 > section 3.10.6 > no active meter
1019	No metering data available	No Metering Data MSATS cannot obtain Metering Data	PRD and Quality Flag process on page 45 > 3.10.3 No metering data

Code	Message	Problem	Reference
1020	The metering data available contains null values	MSATS cannot obtain valid Metering Data Metering Data Contains (A,S,F and/or NULL)	Previous Read Date & Quality Flag on page 44 > 3.10.5 > bullet point 6b
1021	Not applicable	The NMI does not meet the criteria for Previous Read Date & Quality Flag	Previous Read Date & Quality Flag on page 44 > 3.10.3
1022	Unable to retrieve data at this time	The eMDM database is unavailable	PRD and Quality Flag process > eMDM database unavailable on page 46 > 3.10.3 eMDM database unavailable
1023	Invalid combination of Change Reason Code, Read Type Code, and Meter Install Type	The combination of Read Type Code and Meter Install Type is invalid for this Change Reason Code	Read type code combinations > section 3.8.4

3.7   Change Request Reversals

Customer Switching provides the ability to reverse or undo a previous Change Request (CR), where each unique reversal process has a specific CR Code in MSATS. These new CRs behave exactly like other CRs.

The initiatingTransactionID is the transaction ID of the 1060 or 1061, NOT the CR being reversed.

The two new reversal codes are:

CR_Code	Description	Initiation time frame	Details
1060	Reverse Retailer – Cooling Off	Within 10 Business Days	Raised by the winning FRMP (e.g. the FRMP raising the CR10XX that completed within the initiation time frame

So there is no gap in the dates for the Retrospective reversal, The participant raising the CR1060 includes the original CR number so MSATS reverses to the same date

A CR1060 cannot reverse another CR1060. It can only reverse the last transfer CR

If the End-use Customer changes their mind, the Retailer must raise a new transfer CR |
| 1061 | Reverse Retailer – Debt Objection (VIC only) | Within 1 Business Day

Based on the date, not the time, e.g. if the COM Transaction Date is 02/11/2020 15:30:00 hrs, the Retailer can raise a CR1061 until 03/11/2020 23:59:59 hrs | Raised by the previous FRMP (e.g. the FRMP who was current on the NMI prior to the completion of the CR10XX)

If the CR1061 reversal is cancelled, the original transfer CR remains |

3.7.1 Reverse CR codes

This table describes the reversible code for use with each reversible CR (relates to error 1009).

Reversable completed CR code	Reversable by CR code
1000	1060
1000	1061

Reversable completed CR code	Reversable by CR code
1010	1060
1010	1061
1030	1060
1040	1060

3.7.2 Reversal

The Retailer provides the Related Change Request ID for MSATS to:

1. Determine if the Reversal CR meets the Reversal criteria.

2. Validate the related CR:

    a. Was completed within defined time frames (initiation window and Retrospective period).

    b. Is the most recently completed CR.
       Valid CRs complete during the overnight process that runs after midnight.

    c. Is initiated by the appropriate Role and Participant ID.

3. Ensure no other concurrent Transfer exists.

4. Complete the Reversal for the same date as the Related Change Request.

CR1060

Raised by the winning FRMP.

The Initiating reversal participant:

1. FRMP on the current MSATS record.

2. FRMP of the CR being reversed.

3. Initiator of the CR being reversed.

CR1061

Raised by the losing FRMP (in Victoria only).

The Initiating reversal participant:

1. Is the most recent previous FRMP.

2. Is the outgoing Participant ID and Role on the CR being reversed.

3.7.3 CR reversal processing

CR reversals are processed during the MSATS Overnight Processing.

3.7.4 Preconditions

- A previous change of FRMP role has processed to COM (complete) status (relates to error 1008).

3.7.5 Generic reversal process

A Market Participant raises a reversal CR:

1. MSATS validates the initiating Participant ID and Role is either for:

   a. A **CR1060**: the same FRMP Participant ID and Role that initiated the related CR ID.

   b. A **CR1061:** the most recent previous FRMP

2. For a reversal CR MSATS validates:

   a. The related CR ID:

      1. Is eligible for reversal.
      2. Has COM status (error 1008).
      3. Has an Actual Change Date within the retrospective time frames specified (error 1015).
      4. Is the most recently completed CR for the NMI being reversed such as: Role, Meter, etc (error 1010, 1011, 1014).

   b. The reversal meets the defined initiation time frames (error 1012).

   c. For a CR1061, the Jurisdiction is VIC (Victoria).

3. Where the reversal CR is a 1060 or 1061, determine there is no other related transfer impacted. For details, see the **Concurrent Transfer Process** in the **MSATS Procedures**.

4. MSATS updates the CATS CR record with all values of the related CR ID, including the Proposed Change Date and Actual Change Date.

3.7.6 CR reversal rejection or cancellation

Retailers can retrigger a rejected or cancelled CR1060 or CR1061 if it is done within the initiation time frames.

3.7.7 CR reversal withdrawal

Retailers can withdraw a raised CR1060 or CR1061 before the completion of the Overnight Processing.

3.7.8 Reversed CR COM notification

The Request ID in the reversed CR COM Notification is new. It is not the same Request ID as the CR being reversed.

When the reversed CR completes, MSATS sends COM notifications to both involved Retailers:

1. The current FRMP who raised the CR1060, gets all notifications REQ, PEN, COM, and so on.

2. The Retailer keeping the NMI only receives the COM Notification.

Reversed CR COM Notification example

```
<?xml version="1.0" ?>
<ase:aseXML xmlns:ase="urn:aseXML:r35"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```xml
xsi:schemaLocation="urn:aseXML:r35
http://www.nemmco.com.au/aseXML/schemas/r35/aseXML_r35.xsd">
  <Header>
    <From description="Australian Energy Market Operator Limited">NEMMCO</From>
    <To description="FTP Superseeded Pool NSW">POOLNSW</To>
    <MessageID>NEMMCO-MSG-730424916</MessageID>
    <MessageDate>2020-12-09T13:16:18+10:00</MessageDate>
    <TransactionGroup>CATS</TransactionGroup>
    <Priority>Medium</Priority>
    <SecurityContext>NEMMCOBATCH</SecurityContext>
    <Market>NEM</Market>
  </Header>
  <Transactions>
    <Transaction transactionID="NOTF-1638290891" transactionDate="2020-12-
09T13:16:14+10:00" initiatingTransactionID="20201209T141447">
      <CATSNotification version="r29">
          <Role>FRMP</Role>
          <RoleStatus>N</RoleStatus>
<ChangeRequest>
    <Participant>POOLTST</Participant>
    <RequestID>1006633152</RequestID> This is a new request ID
    <ChangeStatusCode>COM</ChangeStatusCode>
    <ChangeData>
        <ChangeReasonCode>1060</ChangeReasonCode>
        <ActualChangeDate>2020-11-19</ActualChangeDate>
        <InitiatingRequestID>1006633150</InitiatingRequestID>
        <NMIStandingData xsi:type="ase:ElectricityStandingData" version="r35">
            <NMI checksum="6">TST0000037</NMI>
        </NMIStandingData>
    </ChangeData>
</ChangeRequest>
<JurisdictionCode>NSW</JurisdictionCode>
<NMIClassificationCode>SMALL</NMIClassificationCode>
<ObjectionEndDate>2020-12-09</ObjectionEndDate>
</CATSNotification>
    </Transaction>
    <Transaction transactionID="NOTF-1638290891A" transactionDate="2020-12-
09T13:16:18+10:00" initiatingTransactionID="20201209T141447">
      <ReportResponse version="r10">
        <ReportParameters xsi:type="ase:CATSMasterReportParameters">
            <ReportName>Master</ReportName>
            <FromDate>0001-01-01</FromDate>
            <ToDate>9999-12-31</ToDate>
            <AsAtDate>2020-12-10</AsAtDate>
            <LastSequenceNumber>0</LastSequenceNumber>
            <NMI>TST0000037</NMI>
            <Participant>POOLNSW</Participant>
            <Role>FRMP</Role>
            <ReportType>Detailed</ReportType>
        </ReportParameters>
        <ReportResults xsi:type="ase:ReplicationReportFormat">
<ReplicationBlock tableName="ElectricityNMIMaster">
  <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMasterRow">
```

```xml
        <SequenceNumber>96156311</SequenceNumber>
        <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <JurisdictionCode>NSW</JurisdictionCode>
        <NMIClassificationCode>SMALL</NMIClassificationCode>
        <TransmissionNodeIdentifier>ACA1</TransmissionNodeIdentifier>
        <DistributionLossFactorCode>AH00</DistributionLossFactorCode>
        <Address>
            <SuburbOrPlaceOrLocality>TESTSUB</SuburbOrPlaceOrLocality>
            <StateOrTerritory>NSW</StateOrTerritory>
            <PostCode>2222</PostCode>
        </Address>
        <Aggregate>Yes</Aggregate>
        <Status>A</Status>
    </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIRoles">
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>234680222</SequenceNumber>
        <CreationDate>2020-12-09T13:08:25+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>2020-11-18T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <Party>POOLNSW</Party>
        <Role>FRMP</Role>
    </Row>
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>234680226</SequenceNumber>
        <CreationDate>2020-12-09T13:16:14+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-19T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <Party>POOLNSW</Party>
        <Role>FRMP</Role>
    </Row>
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>234680215</SequenceNumber>
        <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
```

```xml
      <Party>POOLQLD</Party>
      <Role>LNSP</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>234680216</SequenceNumber>
      <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2020-11-09T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>TST0000037</NMI>
      <Party>POOLACT</Party>
      <Role>LR</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>234680217</SequenceNumber>
      <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2020-11-09T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>TST0000037</NMI>
      <Party>POOLNZL</Party>
      <Role>MDP</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>234680218</SequenceNumber>
      <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2020-11-09T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>TST0000037</NMI>
      <Party>POOLTAS</Party>
      <Role>MPB</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>234680219</SequenceNumber>
      <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
      <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
      <RowStatus>A</RowStatus>
      <FromDate>2020-11-09T00:00:00+10:00</FromDate>
      <ToDate>9999-12-31T00:00:00+10:00</ToDate>
      <NMI>TST0000037</NMI>
      <Party>POOLSA</Party>
      <Role>MPC</Role>
   </Row>
   <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
      <SequenceNumber>234680220</SequenceNumber>
```

```xml
        <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <Party>POOLVIC</Party>
        <Role>ROLR</Role>
    </Row>
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>234680224</SequenceNumber>
        <CreationDate>2020-12-09T13:08:25+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>2020-11-18T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <Party>POOLWA</Party>
        <Role>RP</Role>
    </Row>
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIRoleRow">
        <SequenceNumber>234680227</SequenceNumber>
        <CreationDate>2020-12-09T13:16:14+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-19T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <Party>POOLWA</Party>
        <Role>RP</Role>
    </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIDataStreams">
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIDataStreamRow">
        <SequenceNumber>220375568</SequenceNumber>
        <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <Suffix>12</Suffix>
        <ProfileName>NOPROF</ProfileName>
        <AveragedDailyLoad>123</AveragedDailyLoad>
        <DataStreamType>Interval</DataStreamType>
        <Status>A</Status>
    </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIMeters">
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMeterRow">
```

```xml
        <SequenceNumber>82370631</SequenceNumber>
        <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <SerialNumber>1234567890</SerialNumber>
        <InstallationTypeCode>MRIM</InstallationTypeCode>
        <ReadTypeCode>RWD</ReadTypeCode>
        <Status>C</Status>
    </Row>
</ReplicationBlock>
<ReplicationBlock tableName="ElectricityNMIRegisterConfiguration">
    <Row xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ase:ElectricityNMIMeterRegisterRow">
        <SequenceNumber>109328899</SequenceNumber>
        <CreationDate>2020-12-09T13:07:23+10:00</CreationDate>
        <MaintenanceDate>9999-12-31T00:00:00+10:00</MaintenanceDate>
        <RowStatus>A</RowStatus>
        <FromDate>2020-11-09T00:00:00+10:00</FromDate>
        <ToDate>9999-12-31T00:00:00+10:00</ToDate>
        <NMI>TST0000037</NMI>
        <SerialNumber>1234567890</SerialNumber>
        <RegisterID>12345678</RegisterID>
        <NetworkTariffCode>POOLQLD</NetworkTariffCode>
        <UnitOfMeasure>KWH</UnitOfMeasure>
        <TimeOfDay>12</TimeOfDay>
        <Multiplier>1</Multiplier>
        <DialFormat>1</DialFormat>
        <Suffix>12</Suffix>
        <ControlledLoad>1</ControlledLoad>
        <ConsumptionType>Actual</ConsumptionType>
        <Status>C</Status>
    </Row>
</ReplicationBlock>
            </ReportResults>
            <Event severity="Information">
                <Code>0</Code>
                <Explanation>Success</Explanation>
            </Event>
        </ReportResponse>
    </Transaction>
  </Transactions>
</ase:aseXML>
```

3.7.9 Reversal history model

CR1060 Cooling off reversal

CR1060 – COOLING OFF REVERSAL					
Create Date/Time	**Start Date** *16/12/2003*	**End Date** *1/04/2020*	**Start Date** *2/04/2020*	**End Date** *31/12/9999*	**Description**
3/04/2020 17:23	RETAIL1		RETAIL1		RETAIL2 submits CR 1060
2/04/2020 17:14			RETAIL2		RETAIL2 wins Customer from RETAIL1
17/12/2013 17:25	RETAIL1				Original

CR1061 Debt (Vic only)

CR1061 – DEBT (Vic Only)					
Create Date/Time	**Start Date** *16/12/2003*	**End Date** *1/04/2020*	**Start Date** *2/04/2020*	**End Date** *31/12/9999*	**Description**
9/04/2020 17:23	RETAIL1		RETAIL1		RETAIL1 submits CR 1061
6/04/2020 17:14			RETAIL2		RETAIL2 wins Customer from RETAIL1
17/12/2013 17:25	RETAIL1				Original

3.8 Retail transfer CR specific validation

For the processing of Customer Switching CRs within the 1000 to1099 range (except 1023), this project changes several Change Request (CR) specific validation rules related to Retail Transfers.

3.8.1 Preconditions

CRs not passing validation are processed through to a state of Rejected (REJ) with existing error codes provided.

3.8.2 Modified retail transfer process

When MSATS receives a CR with a Read Type Code:

1. Identify if the combinations are valid for:

    a. **Prospective** proposed change date

    b. **Retrospective** proposed change date

2. Check if the meter type is valid for the Read Type Code (error 1023).
   For details, see Meter install type on page 41.

3.8.3 Post-conditions

At the completion of this Release:

1. MSATS does not apply this validation to Inflight CRs at the time of implementation.

2. Valid Change Requests are processed to a state of Requested (REQ) and an appropriate Request for Data (RDAT) sent (if required).

3. Change Requests not passing validation are processed through to a state of Rejected (REJ) with existing error codes provided.

The following tables define the permitted combinations of codes a NMI must have before a retrospective or prospective CR can proceed.

Legend

Type A	Basic, MRIM (not RWD), MRAM	manually read
Type B	Comms 1-4, 4C & 4D, MRIM (with RWD), VICAMI, Sample	remotely read
Type C	Not metered	Connection/Greenfield
Type D	Unmetered Supply	Type 7

3.8.4 Read type code combinations

CR Code		1000		1010	1030	1040, 102X	1023
Read Type Code	**Proposed change date**	Prospective	Retrospective	Retrospective only	Prospective only	Retrospective only	Retrospective only
EI	Existing interval meter	Type B	Type B	X	Type B	Type B	X
GR	Greenfield NMI	X	X	X	X	X	Type C
PR	Previous read date	X	X	Type A	X	Type A	X
RR	Read required	Type A/Type B	Type B	X	X	X	X
SP	Special read	Type A	X	X	Type A/Type B	X	X

CR Code		1000		1010	1030	1040, 102X	1023
UM	Unmetered connection point	Type D	Type D	Type D	Type D	Type D	Type D

3.8.5 Meter install type codes

Metering Group	Meter Install Type Code	Description
Type A	BASIC	Accumulation Meter – Type 6
	MRIM **without** a Meter Read Type of RWD	Manually Read Interval Meter – Type 5
	MRAM	Small customer metering installation – Type 4A
Type B	COMMS1	Interval Meter with communications – Type 1
	COMMS2	Interval Meter with communications – Type 2
	COMMS3	Interval Meter with communications – Type 3
	COMMS4	Interval Meter with communications – Type 4 This code is used for large customer with type 4 metering installations and for small customer type 4 metering installation installed before 1 December 2017
	COMMS4C	CT connected metering installation that meets the minimum services specifications
	COMMS4D	Whole current metering installation that meets the minimum services specifications
	MRIM **with** a Meter Read Type of RWD	Manually Read Interval Meter – Type 5
	VICAMI	A relevant metering installation as defined in clause 9.9C of the NER.
	SAMPLE	Sample Meter

Metering Group	Meter Install Type Code	Description
	PROF	For Profile Setup
Type C	No Meters Exist	n/a
Type D	UMCP	Unmetered Supply – Type 7

3.9 Processing of request for data transfers

Currently, for all customer transfers (10XX CRs), a Request for Data (RDAT) is sent to the MDP to prompt them to provide the CR1500 for the Actual Change Date. For Customer Switching, the process is modified to only issue the RDAT based on specific scenarios.

3.9.1 Preconditions

MSATS receives the CR within the Change Reason Code range 1000-1999 .

3.9.2 No RDAT issued process

1. MSATS identifies if **one** of the following scenarios exist:

   a. The CR is a CR1030 or CR1040.

   b. Has a Read Type Code of SP (Special Read).
   If yes, see RDAT issued scenarios below.

   MDPs only provide a CR1500 when MSATS issues an RDAT.

   If a or b is identified, then MSATS **issues** an RDAT.

   2. For all other scenarios, MSATS **does not** issue an RDAT to the MDP for a CR1500.

3.2. MSATS continues to process the CR without the RDAT or CR1500 requiring completion.

4.3. The Proposed Change Date in the CR becomes the Actual Change Date for the transfer.

3.9.3 RDAT issued scenarios

CR1030 or CR1040

Where the transaction is a CR1030 or CR1040 an RDAT is issued and a CR1500 is required from the MDP.

ReadTypeCode of SP

Where the transaction has a Read Type Code of Special Read (SP) an RDAT is issued and a CR1500 is required from the MDP.

3.10 Previous read date and quality flags

3.10.1 Previous read date

Customer Switching results in the need to provide Retailers (FRMPs) with a list of valid Previous Read Dates (PRDs) and the associated Quality Flag for a NMI in the NMI Discovery Search 2 - NMI Standing Data Response in an additional section called MSATS Metering Data (see NMI discovery stage 2 – obtain standing data results on page 52.

MSATS provides Previous Read Dates for data reviewed in a 12-month retrospective period.

Be aware, in a small number of cases, a submitted Change Request may get rejected because the MDP submitted new or updated Metering Data between the completion of a NMI Detail search and the CR submission.

You complete NMI Detail search to obtain PRD	MDP submits new or updated Metering Data	You submit your CR	Your PRD rejected due to subsequent meter read

3.10.2 Preconditions

The NMI must exist in MSATS.

3.10.3 **PRD and quality flag process**

1. When MSATS receives a valid NMI Discovery Search 2 it determines:

   a. The NMI Classification is: **L - Large** or **S - Small**.

   b. The NMI Status is: **A – Active** or **D – Not Energised**.

   c. The NMI has at least one Meter with a Meter Register Status of: **C – Current** or **D – Remotely De-Energised**.

   d. The Metering at the NMI has a Metering Installation Type Code of:

      1. **BASIC - Accumulation Meter**
      2. **MRIM - Manually Read Interval Meter** (not having a Meter Read Type of RWD)
      3. **MRAM – Small Customer Metering Installation – Type 4A**

   e. An active Datastream (at least one) within a 12-month retrospective period.

2. If a NMI does not meet any of the criteria in step one above, MSATS provides an error message (see page 24).

3. If multiple Metering Installation Types exist for a NMI, MSATS provides the following message: **Metering Review Required (**1017**).**

4. MSATS obtains Read Dates and Quality Flags for a 12-month period from the current date.

5. MSATS uses the Quality Flags described on page 49.

6. MSATS determines each unique PRD and associated singular Quality Flag.

Previous read date hierarchy

MSATS determines a Previous Read Date based on the following hierarchy:

1. Datastreams

2. MDPVersionDate and Time

3. Quality Flag (when both of the above are successful)

Mixed metering types

MSATS provides an error message (1017) if it determines, for a single NMI, there are multiple Meter Installation Type Codes for Meters with a Meter Register Status of:

1. C – Current

2. D – Remotely De-Energised

No metering data

MSATS provides an error message: **No Metering Data available (1019)**, if it determines, for a single NMI, there is no valid metering data available.

eMDM database unavailable

MSATS provides an error message: **Unable to retrieve data at this time (1022)** if it is unable to obtain Metering Data from the MDM database.

3.10.4 Consumption data process

If the Metering Data is Consumption, the following process determines the PRD:

1. Find all Metering Data for the NMI within the previous 12 months.

2. For each active Datastream, determine each of the current **ToDates**, if a valid Quality Flag exists.

The **ToDates** refer to the _ToDate_ in the MDFF file received from the MDP for the NMI. For details, see **MDM File Format and Load Process**.

3. If there are multiple Datastreams, MSATS ensures the ToDate is the same date for all Datastreams for the NMI.

4. The PRD is the valid ToDate + 1 determined by MSATS.

5. If MSATS successfully determines a PRD, it looks for corresponding Quality Flags.

6. Because MSATS can receive reads for multiple meters and/or Datastreams, to determine a single Quality Flag for each PRD, MSATS applies the logic on page 45.

7. MSATS returns all valid PRDs and the determined Quality Flag limited to a maximum of 12 Previous Read Dates within the previous 12-month period.

```
NMI,Suffix,FromDate,ToDate,Status,Value,MDPVersionDate,SubstitutionType,LoadDate,
ActHistFlag
4001000259,11,2019-01-01,2019-03-02,A,111.11,2019-09-30 18:48:26.345,,2019-09-26
16:22:39.715,Active
4001000259,22,2019-01-01,2019-02-07,S,113.11,2019-09-30 18:48:26.345,12,2019-09-
26 16:22:39.715,Active
```

3.10.5 Interval data process

Where the Metering Data is Interval, the following process determines the PRD:

1. For each unique MDP Version Date, MSATS determines the latest **Interval Date** of the reads for all valid Data Streams for the NMI that contains only valid Quality Flags.

The Interval Date refers to the *IntervalDate* in the MDFF file received from the MDP for the NMI. For details, see **MDM File Format and Load Process**.

2. MSATS ensures the Interval Date determined in step 1 is the same date for all active valid Data Streams for that Interval Date.

3. The PRD is the date after the last valid Interval Date + 1 in the MDP Version Date.

4. If MSATS determines a PRD, it looks for a corresponding valid Quality Flag.

5. Because MSATS can receive reads for multiple meters and/or Datastreams, to determine a single Quality Flag for each PRD, MSATS applies the logic on page 45.

6. For the determined PDR, the following applies:

   a. Any day of data containing a single Z or E Quality Flag is not considered for the PRD process.

   b. Any day of data containing a single N returns an error for that PRD.

   c. Where a reading period is:

      ○ 1 day where two or more hours of a lower level flag exists, the Quality Flag **does not** reflect that level for the PRD.

      ○ 2–7 days where four or more hours of lower level flag exists, the Quality Flag **reflects** that level for the PRD.

      ○ 7 or more days where 48 hours or more of a lower level flag exists, the Quality Flag **reflects** that level for the PRD.

7. MSATS returns all valid PRDs and the determined Quality Flag limited to a maximum of 12 Previous Read Dates within the previous 12-month period.

```
NMI,Suffix,SettlementDate,Status,IntervalTime,Value,MDPVersionDate,SubstitutionTy
pe,LoadDate,ActHistFlag
4001000259,E1,2019-01-01,A,00:05:00,111.11,2019-09-30 18:48:26.345,12,2019-09-26
16:22:39.715,Active
4001000259,E1,2019-01-01,A,00:10:00,113.11,2019-09-30 18:48:26.345,12,2019-09-26
16:22:39.715,Active
4001000259,E1,2019-03-04,A,00:05:00,234.45,2019-08-26 16:23:39.715,12,2019-09-30
18:48:26.345,Active
4001000259,B1,2019-01-01,A,00:05:00,113.11,2019-09-26 16:22:39.715,12,2019-09-30
18:48:26.345,Active
```

3.10.6 **Quality flags**

Consumption data quality flags

To determine a single Quality Flag for a PRD, MSATS applies the following logic.

QF combination	PRD and Quality Flag
A	A – Actual
A & F	F – Final Substitute
A & S	S – Substitute
F & S	S – Substitute
A, F, & S	S – Substitute
E	Not considered for the PRD

Interval data quality flags

Quality Flag (QF) hierarchy

Hierarchy	QF combination	Previous Read Date Quality Flag
1	A	Actual Reading
2	F	Final Substitute
3	A & S	Substitute
5	Z or E or anything else	Not considered for this purpose

Based on the QF hierarchy, the following also applies for each PRD:

Reading Period	Description
N	Error returned for that read date
1 Day	When 2 or more hours of a lower-level flag exists, the QF reflects that level for the PRD
2 – 7 Days	When 4 or more hours of lower-level flag exists, the QF reflects that level for the PRD
7+ Days	When 48 hours or more of a lower-level flag exists, the QF reflects that level for the PRD

No active meter

MSATS provides an error message: **There are no current meters installed for this NMI (1018)**, if it determines, for a single NMI, there are no Meters and Meter Register Statuses of:

1. C – Current

2. D – Remotely De-Energised

3.11 Previous Read Date Validation

Customer Switching proposes to transfer without the need for the MDP to confirm a Meter reading exists via a CR1500. There are new values providing Retailers with the Previous Read Date (PRD) if they want to align to a meter reading.

3.11.1 Preconditions

MSATS receives the CR.

3.11.2 New PRD validation process

3. MSATS identifies if the Change Request (CR) has a Read Type Code of PR (Previous Read) and is not a CR1040.
   If it is a CR1040, no PRD validation is required and the transfer progresses to Requested (REQ) based on transfer and CR processing validations.

4. If the Read Type Code is PR, MSATS ensures the Proposed Change Date in the CR matches the PRD
   If the PRD does **not** match the Proposed Change Date, MSATS rejects the CR with a **1016** error: Proposed Change Date does not align to a Previous Read Date. This

validation represents the PRD at the time the CR was raised. An MDP may have provided new Metering Data since the NMID was performed.

5. Where the PRD matches the Proposed Change Date in the CR, the transfer progresses to Requested (REQ) based on existing transfer and CR processing validations without requiring a CR1500.

6. The Proposed Change Date in the CR becomes the Actual Change Date for the transfer.

3.12 MSATS Web Portal

3.12.1 NMI discovery stage 2 – obtain standing data results

On the Obtain Metering Data – Results interface there is a new link to **MSATS Metering Data**.

To view MSATS Metering Data:

1. Click **NMI Information** > **NMI Discovery** > **Search Type 2 (Obtain Standing Data)**.

2. Enter the **NMI** and **Checksum** and click **Search**.

3. In Obtain Standing Data – Results, click **MSATS Metering Data** (see Figure 1 on page 53)

4. The interface displays with the following details (see Figure 2 on page 53):

   a. NMI

   b. Previous Read Dates

   c. Associated Quality Flags

   > **You can also obtain this information using the getNMIDetail API.**

   If previous reads are not available a message displays (see Figure 3 on page 53).

Figure 1 Obtain standing data results

Figure 2 MSATS metering data

Figure 3 Previous reads unavailable

Figure 4 No metering data available

Figure 5 Metering review required

3.12.2 MSATS Metering Data user rights access

Your company's Participant Administrator (PA) provides you access to the MSATS Metering Data interface using the **NMI Discovery** entity in the Administration menu.

For help assigning user access rights, see Guide to User Rights Management.

3.13 Customer switching participant Impact

3.13.1 In-flight change requests

Retailers can take an individual approach to raising CRs before the Customer Switching effective date or wait until go-live to apply the new transfer rules. Inflight CRs complete according to the rules effective when they are raised.

Post go-live

MSATS rejects any new CRs received for retired Change Reason Codes.

Objections

Objections for Customer Switching are obsolete 21 days after implementation.

Participants can:

- Continue to raise Objections until the Objection Logging Period closes.

- Remove Objections until the Objection Clearing Period closes.

Change request processing

To effect transfer completion, where an RDAT is issued and a CR1500 is required, MSATS still requires the CR1500.

The usual processing of PEND and COM status continues.

Go-live configuration updates

Configuration change updates are as follows:

- Removal of the ability to initiate retired CR Codes.

- 65 Business Days / 90 Calendar Days post go-live configuration updates to remove notifications for retired CR Codes.

3.13.2 B2M aseXML schema change to r39_p1

To receive the new PreviousReadDate block, AEMO recommends participants upgrade to r39_p1 by deployment of this Release. Previous read dates

You can use NMI discovery 2 to get Previous Read Dates (PRD). For help, see NMI discovery stage 2 – obtain standing data results on page 52.

3.13.3 **At the completion of this release**

1. If this release affects you, change your systems for compatibility.

2. Be familiar with new error codes.

3. Be familiar with what happens to in-flight Change Requests.

4. Retired codes used in Change Requests are rejected.

5. You cannot raise Objections on retired objection codes.

6. You can only send Notifications to parties according to the Notification Rules.

7. You cannot select the MDP, MPB, and MPC roles in the CR 1000 to 1099 range.

8. The role of RP is an optional field in the CR 1000 to 1099 range, excluding 1060 and 1061.

4. Customer Switching FAQs

4.1 CR objections

4.1.1 If I am the losing FRMP, do I need the reversal dates to object?

Objections are not applicable on CR10XX Change requests, but you can raise the new reversal change request.

You need the originating Change Request ID to populate into the Reversal CR and MSATS populates the dates.

4.1.2 Can receiving retailers reject a 1060 or 1061?

No, there any no objections on these reversals.

4.1.3 For any reason, can retailers object to any of these CRs, 1000, 1010, 1030, 1040?

No.

4.1.4 Can we lift the objection we placed due to DEBT after go-live?

Yes, the Objection window remains open post go-live.

4.2 CR notifications

4.2.1 Does the COM notification contain the same information as the initial CR Request

The completion Notification provides the same information you currently receive on transfer CRs.

4.3 CR rejections

4.3.1 Are there new rejection reasons for Reversal CRs?

No.

4.4 CR reversals

4.4.1 How long is the cooling-off period?

The Cooling-off Period is specified in instruments outside of AEMO's jurisdiction. The period for raising a CR1060 is specified in the **MSATS Procedures: CATS Procedure Principles and Obligations**.

4.4.2 When raising a Reversal CR will MSATS include CR6000 series it looks for as a completed CR before processing the reversal?

Yes, MSATS looks for any Change Requests having completed and if the transfer CR is not the latest one then the reversal is rejected.

4.4.3 For a reversal CR, what happens for DB MC to MC back to DB MC?

If an MC was changed in the transfer CR, then when the reversal CR is completed the NMI will go back to the status it was before the transfer CR was completed. For example, the original MC (before the transfer) is the current MC. They reverse back to the previous roles before the Transfer CR was completed.

4.4.4 If multiple reversals need processing, does the CR reversal take longer?

There is only one Change Request Reversal, not a queue of reversals. The active CR reversal is the most recently submitted.

4.4.5 Do CR reversals show in MSATS?

Yes, you can search these CRs with the Transaction Code. But they don't show in Participant Relationships.

4.4.6 If an MC raises a CR68XX to change the roles and it is still in pending does the reversal still process?

Yes, the reversal still processes, but if the CR68XX is complete the reversal is rejected.

If you are no longer the MC, you are required to cancel the CR68XX and any related service orders.

4.4.7 If a CR Reversal is submitted for a CR not the latest, is it rejected?

Yes.

4.4.8 How long does a debt CR reversal take?

All reversals complete in the overnight batch process. The window for raising is one day. For more details, see **MSATS Procedures: CATS Procedure Principles and Obligations**.

4.4.9 If a customer requests, can we provide them the reversing retailer?

Yes, a COM notification with details. The same process as loss and acquisitions.

4.4.10 Can a CR1060 be raised for an insitu CR raised prior to the go-live date?

No, because 1 day has passed after raising. For details, see **MSATS Procedures: CATS Procedure Principles and Obligations**.

4.5 CRs cancelled

4.5.1 Is there a CAN coming after a CR 1060 REJ to the retailer who raised it?

Reversal Change Requests follow the Change Requests lifecycle. REJ is the final status.

4.6 CRs pending

4.6.1 If a Reversal CR is complete, what does that mean for any pending CR 68xxs?

You must cancel them.

4.6.2 What happens if an MP starts an installation when a CR 6800 is pending?

As soon as the CR 68XX is in pending status an MP can commence the Meter install. If the job is complete, all parties must discuss to rectify.

4.7 CRs in-flight

4.8 CR validation

4.8.1 What happens if the metering data revision happens after MSATS validates the CR?

The CR completes because it happens overnight and the MDP is required to provide Metering Data to the new FRMP from the effective date. If required, the MDP must provide a substitute reading for the effective date.

4.8.2 Is the validation done when the CR is raised, not when the CR is complete?

Yes.

4.8.3 Do MSATS validations perform prospective and retrospective business day validations for CR 10xx series?

Currently MSATS validates if a CR is raised outside of its Timeframe Rules and continues after Customer Switching implementation. If the CR is not raised within the timeframes according to the relevant CATS Procedures tables, MSATS rejects the CR.

4.9 Datastreams

4.9.1 What channels does this cover? E, B, K and Q? (Datastreams)

Only covers Datastreams used for the Settlements process.

4.9.2 If previous Datastreams are I, there is no previous read

Yes, Datastreams must be active.

4.10 History model

4.10.1 Does the MSATS History Model change?

No.

4.11 MDMF and MDFF

4.11.1 Will this change when AEMO accepts MDFF?

After 5MS implementation, AEMO uses the MDMF and MDFF for Basic Meters and MDFF for Interval meters.

4.12 Meter installations

4.12.1 Can you do customer transfers with meter changes

No. The NER states that only the MC can install Meters. This means the MC must be the MC before a meter installation can take place.

4.13   Previous read date

4.13.1   How can I see the previous read date and quality flag?

They are available from a Type 2 NMI Discovery Search using any of the following interfaces:

1. FTP File Interface

2. B2M Sync and Async APIs

3. MSATS Web Portal

4.13.2   With regards to previous read date what value is shown?

The read date plus one day. For details, see the scenarios in Appendix A.

4.13.3   How many previous readings show?

The last 12 months reading, for example 4 reads over 12 months = 4 readings.

4.13.4   How many previous reads return for an interval meter?

12 previous reads.

4.13.5   Is the previous read in a C4 report response or only in NMI discovery?

No, only in NMI Discovery.

4.13.6   Can a meter removal be part of a previous read?

No, MSATS only returns reads for current active Meters.

4.13.7   Will I see removed meter reads?

No.

4.13.8   Will I see previous reads for the last 12 months?

Only for current manually read Meters.

4.13.9 Is it the same for de-energised meters?

Yes, if the Meters are current a read is returned.

4.13.10 Is this to help identify read dates on legacy metering?

This process is to provide Previous Read Dates for Manually Read Meters. This includes Basic and MRIM Meters not having a Read Type Code of RWD.

4.13.11 For a meter exchange from BASIC to COMMS, if the BASIC meter was removed within the last 65 business days, can the retailer win the site based on the basic schedule read date possibly within 65 business days?

No, MSATS only returns reads for the current active Meters.

4.13.12 For previous read dates what value is shown?

The ToDate in the MDMF plus one day and the **CurrentRegisterReadDateTime** in the MDFF for Basic Meters. For details, see the scenarios in Appendix A.

The IntervalDate in the MDFF based on groupings of MDPVersionDateTime using the last IntervalDate where we have a valid Quality Flag plus one day for Manually Read Interval Meters.

4.13.13 For a 3-month MRIM previous read, where the flags are A and E, the flag returned is A?

The IntervalDate in the MDFF based on groupings of MDPVersionDateTime using the last IntervalDate where there is a valid Quality Flag plus one day for Manually Read Interval Meters. E is not considered a valid Quality Flag.

4.13.14 If the replacement reads went back 1 year, then there is one for the entire 12 months?

If AEMO receive one block of data covering a full year of reads, the PRD process returns the read date as per the logic covered in previous questions. MSATS only returns the latest read dates for the MDPVersionDateTime grouping.

4.13.15 Do requests coming in either side of replacements provide different results?

If you perform a NMI Discovery on one day and a meter exchange completed after your NMI Discovery and the transfer CR was raised after the meter exchange was completed the transfer CR gets rejected as the PRD provided in the NMI Discovery is no longer valid.

4.13.16 Can a prospective transfer happen on an S read if the MDP cannot provide an A read?

Yes, you can raise Prospective transfers and the transfer completes using the proposed date in the CR. If the MDP does not have a read on the effective date they must provide a substitute read. The Transfer completes and the substituted read is provided after the MDP receives the Completion Notification.

4.14 Quality Flags

4.14.1 Can a customer transfer on a substitute (S) read?

A Prospective transfer can happen on a substitute read where the MDP does not have an Actual Read for the Proposed Date in the Change Request. The substitute data is delivered for:

1. An Accumulation Meter with the Quality Flag F, according to section 14.3 of the **Metrology Part B Procedure**.

2. A manually read Interval Meter flagged with either S or F is not specified in the procedures.

4.14.2 How do quality flags work if the customer transferred 6 months ago on an estimate?

If a transfer happens using a substituted read provided by the MDP then the substituted read is in MSATS and returned as part of the PRD in NMI Discovery.

4.14.3 If another retailer tries to win the same site from a retrospective date, can it only happen on an A quality flag?

A Retrospective transfer of a manually read Meter (Accumulation or Interval) can occur if the Quality Flag is A or F.

4.14.4 Is the MDP obliged to take an actual read even though an S quality was provided earlier?

If the date the previous Retailer won the site was transferred on an actual read, the read is returned in NMI Discovery and is used for the transfer.

If it is a substitute read the Retailer won on, they cannot use it to retrospectively win the customer using the CR 1010, even if it falls within the time frames.

You can use the error correction CRs on a date agreed by both parties.

4.14.5 For days indicated as S, do we assume that any interval in that day is S then the whole day is considered S?

MSATS assesses the Quality Flags over the duration of the MDFF received. The calculation is based on the reading period. For example, if MSATS receives 1 day of data there must be 2 or more hours of substitutes before a substitute returns. If an error returns for the previous read date, then the transfer on the previous read fails.

Yes, MSATS rejects the Change Request if it does not meet the PRD criteria.

4.14.6 Can a retrospective correction be raised for a CR 102X with quality flag A?

This scenario is agreed between Retailers.

4.15 RDATs

4.15.1 Is a CR 1500 required where CR = 1030 and RTC = EI?

Customer Switching does not change the processing of a CR 1030. An RDAT is sent today and continues after Customer Switching implementation.

4.15.2 What happens to transitional CRs raised before the customer switching effective date, when the proposed change date is after for the following CR Types, do they transition to complete without a CR 1500 ACD?

  a. Retrospective: CRs 1010, 102x (including retired 102x), or 1040 and Read Type Code = PR.

  b. Prospective: CR 1000 and Read Type Code = RR or EI.

  c. CR 1000 and Read Type Code = NS.

  d. CR 1030 and Read Type Code = RR.
     Note: An RR on a 1030 is not allowed post Customer Switching implementation.

If an RDAT was issued prior to the implementation date, MSATS expects the RDAT to Complete with a CR 1500 sent.

4.16 Read type codes

4.16.1 Post customer switching implementation, is a read type code of EI an allowable value for CRs 1000, 1030, 1040, and 102x for meter types MRIM with RWD and VICAMI?

Yes.

See table 4M in the **MSATS Procedures: CATS Procedure Principles and Obligations**.

4.16.2 Is a substitution reason type code 67 only provided for ACD-1 or is all estimated data converted to substitute preceding the ACD-1 read also allocated it?

The previous Retailer requires Metering Data until the transferred date, if that requires the MDP to send a block of new data replacing any forward estimate then that block of data must be replaced with substituted data so you use a code 67.

The new FRMP only gets forward estimation data and receives actual data on the next Meter Read.

5. Implementation

To maintain systems in-line with AEMO's market systems, participants need to:

- Review and assess the impact on their market systems with respect to the changes implemented as part of this Release.

- Schedule staff and resources to upgrade their market systems for the production implementation of this Release.

5.1 Key consideration

For Customer Switching the key is upgrading to the B2M aseXML schema r39_p1 to receive the new fields.

5.2 Upgrade options

5.2.1 Option 1

- Update local processes and technical interfaces to suit the changes.

5.2.2 Option 2

- If changes are irrelevant to participant business processes and technical interfaces, ignore this release.

5.3 Risks

- No critical impacts to participants identified.

5.4 What happens if I do not upgrade?

You cannot receive the new PreviousReadDate block in B2M schema r39_p1.

6. Terms

6.1 Rules terms

You can find the following terms defined in the National Electricity Rules (NER).

Term
AEMO
AER
Business Day
End-use Customers
Market Participant
Meter
Metering Data
Metering Installation
NEM
NMI
Retailer

6.2   Glossary

You can find a full list of MSATS glossary terms in:

1. **Retail Electricity Market Glossary and Framework**

2. **Guide to MSATS and B2B Terms**

Abbreviation/Term	Explanation
COAG	Council of Australian Governments
Release	MSATS 46.99 Technical Specification
Schema	B2M aseXML schema r39_p1
TBC	To be confirmed

7. References

You can find references on AEMO's website.

aseXML standards: The standard developed by Australian energy industries to facilitate the exchange of information between energy industry participants using XML.

Guide to MSATS and B2B Terms: Assists participants to understand the terms used in the MSATS guides.

Guide to MSATS Web Portal: Assists participants to use the MSATS web portal functions.

Guide to NEM Retail B2M APIs: Explains how to build B2M retail metering APIs.

Guide To Transition Of aseXML: Provides information and guidance for participants transitioning to another B2M or B2B asexml schema.

Guide to User Rights Management: Assists participant administrators (PAs) to use the user rights management functions in the MSATS Web Portal.

Introduction to MSATS: Provides an introduction to the Market Settlement And Transfer Solution (MSATS), including using the file interface (Batch Handlers).

MDM File Format and Load Process: Specifies the Meter Data Management (MDM) Format used by MDPs for the provision of Metering Data to AEMO.

Meter Data Validation Matrix: Links validations with respective error codes for B2M and eMDM.

Reducing customers' switching times: https://www.aemc.gov.au/rule-changes/reducing-customers-switching-times

Reducing retail customers' switching times in the NEM: https://aemo.com.au/initiatives/submissions/reducing-retail-customers-switching-times-in-the-nem

Retail Electricity Market Glossary and Framework: assist participants to understand the overall retail electricity framework. Contains terms used in the Retail Electricity Market Procedures and a list of NEM procedures, guidelines, and documents.

Technical Guide to MSATS: Supplement to MSATS B2M policies, procedures, and guides providing an understanding of MSATS functionality and business rules.

MDM File Format and Load Process: Specifies the Meter Data Management (MDM) Format used by MDPs for the provision of Metering Data to AEMO.

8. Index

9. Appendix 1 - Version History

9.1 V1.00

Combined MSATS 5MS Meter Data and Customer Switching changes.

9.19.2 V0.20

Initial draft publication for MSATS Customer Switching project.