Customer Expert Day

Reads

Meter Read Rejections

Top 10 Rejections

The below table shows the top 10 rejections for the last 12 Months

Code	Shipper Meter Read Rejection Reason	Number Of MPRNs	%
MRE00490	A breach of the allowed reading submission frequency occurred	11226358	40.45%
MRE01029	Reading Breached the upper Inner Tolerance value and no override flag provided	5196494	18.72%
MRE01016	Actual read can only be replaced by a replacement read	3531317	12.72%
MRE00489	Non-opening reading received outside the read receipt window	1912838	6.89%
MRE01026	Reading Breached the lower Outer Tolerance	1713290	6.17%
MRE00457	New Meter Reading is less than previous meter reading	1681187	6.06%
MRE00419	The meter serial number on the read does not agree with the meter serial number held on the Transporter Database	784670	2.83%
MRE01030	Override tolerance passed and override flag provided	739905	2.67%
MRE01027	Reading Breached the upper Outer Tolerance	582312	2.10%
MRE00482	Meter point has no read to be replaced	386425	1.39%

MRE00490 - A breach of the allowed reading submission frequency occurred

This rejection code only applies to Class 4 sites.

All other Classes we expect daily reads.

This rejection occurs when a meter read is being submitted too often for the Meter Read Frequency (MFR).

Please be aware, this will also apply to a cyclic read received following the submission of a shipper transfer read.

12 month average 40.45%

MRE00490

Frequency of Submission Rule

UNC Section M 5.9.2 - The read will **not be accepted** if the period from the last read date to the submitted read date is:-

Monthly Read Meter	• Less than 7 Calendar Days
Annual Read Meter (Large Supply Meter Point)	• AQ > 73,200 • Less than 14 Calendar Days
Annual Read Meter (Small Supply Meter Point)	• AQ < 73,200 • Less than 25 Calendar Days

MRE00490 - A breach of the allowed reading submission frequency occurred

A meter read frequency of ‘monthly’ should be applied where the AQ is above 293000, or where a smart meter or a AMR is attached/installed.

Change Request XRN4941 (MOD 0692S) is being proposed to automatically update the MRF for sites where appropriate. If approved this change will go into June 2020 Release.

The site should either have its MRF or class adjusted to allow more reads to be submitted, or the shipper should be reducing the amount of reads being submitted in line with MRF of the site.

If you have a smart meter attached or AMR equipment and would prefer to submit daily readings, you can change to a Class 3, and submit your reads in batches. Please note, in order to meet your performance obligations you must submit daily reads for a Class 3.

MRE01029 Reading breached the upper Inner tolerance value and no override flag provided

This rejection code is because a read has been submitted which is too high for the inner tolerance and has not been flagged.

The flag is your confirmation that whilst the consumption is high, you accept that the read is correct.

Lower AQ Band	Upper AQ Band	Read Accepted without Tolerance flag	Read Accepted with Tolerance flag	Read Rejected
0	1	0% - 2000000% of AQ	> 2000000% - 7000000% of AQ	> 7000000% of AQ
2	100	0% - 20000% of AQ	> 20000% - 45000% of AQ	> 45000% of AQ
101	201	0% - 10000% of AQ	> 10000% - 25000% of AQ	> 25000% of AQ
201	500	0% - 4000% of AQ	> 4000% - 55000% of AQ	> 55000% of AQ
501	1000	0% - 2000% of AQ	> 2000% - 25000% of AQ	> 25000% of AQ

12 month average 18.72%

*Snapshot of the tolerances table

MRE01029 Reading breached the Upper Inner tolerance value and no override flag provided

We advise that validation is completed by the Shipper prior to the read submitted, to ensure it is submitted correctly.

An option that could be put forward by a Shipper is to change the tolerance values, however you would need to submit a MOD for this and it would need to be agreed industry wide.

MRE01029

Calculating Volume and Energy from reads

Volume = Read $_2$ – Read $_1$ x Correction Factor x Read Factor x Conversion Factor

- conversion factor is equal to 2.83 for imperial to metric conversion

$$\boldsymbol{Energy(kWh)} = \frac{Volume\left(m^3\right) x\ Calorific\ Value}{3.6}$$

Energy Calculation Example

AQ = 4600

Previous Actual read for 24/8/17 of 2728.

Current read received for 1/3/18 of 4452.

Metric meter with Correction Factor of 1.02264 and using an average CV of 39.

Consumption = 1763 and Energy = **19100**

MRE01029

Calculating Tolerance Energy

Tolerance energy = AQ / 365 x number of days between reads x tolerance threshold (%)

Tolerance Calculation Example

Energy 19100 from previous slide

Tolerance levels are:-

Accepted without flag up to (4600/365 * 188 days)* 400% = 9477

Requires a flag up to (4600/365 * 188 days)* 7000% = 165852

Reject as a Market Breaker above (4600/365 * 188 days)* 7000% = 165852

This read would have required a Tolerance Override Flag of ‘Y’

Lower AQ Band	Upper AQ Band	Read Accepted without Tolerance flag	Read Accepted with Tolerance flag	Read Rejected
1001	5000	0% - 400% of AQ	> 400% - 7000% of AQ	> 7000% of AQ

MRE01027 Reading Breached the upper Outer Tolerance

This rejection code is because the read is completely over the upper tolerance (market breaker)

- This could be because of an AQ issue. If so, we would advise to complete an AQ correction.
- This could be because the read is wrong.

Lower AQ Band	Upper AQ Band	Read Accepted without Tolerance flag	Read Accepted with Tolerance flag	Read Rejected
0	1	0% - 2000000% of AQ	> 2000000% - 7000000% of AQ	**> 7000000% of AQ**
2	100	0% - 20000% of AQ	> 20000% - 45000% of AQ	**> 45000% of AQ**
101	201	0% - 10000% of AQ	> 10000% - 25000% of AQ	**> 25000% of AQ**
201	500	0% - 4000% of AQ	> 4000% - 55000% of AQ	**> 55000% of AQ**
501	1000	0% - 2000% of AQ	> 2000% - 25000% of AQ	**> 25000% of AQ**

12 month average 2.10%

*Snapshot of the tolerance table

MRE01030 Override tolerance passed and override flag provided

A read has been submitted with an override flag, however it was within the inner tolerance and did not need a flag.

Complete validations prior to submission of the read to ensure flags are provided only where relevant.

If the read will pass the inner tolerance, it must not be flagged.

Lower AQ Band	Upper AQ Band	Read Accepted without Tolerance flag	Read Accepted with Tolerance flag	Read Rejected
0	1	0% - 2000000% of AQ	> 2000000% - 7000000% of AQ	> 7000000% of AQ
2	100	0% - 20000% of AQ	> 20000% - 45000% of AQ	> 45000% of AQ
101	201	0% - 10000% of AQ	> 10000% - 25000% of AQ	> 25000% of AQ
201	500	0% - 4000% of AQ	> 4000% - 55000% of AQ	> 55000% of AQ
501	1000	0% - 2000% of AQ	> 2000% - 25000% of AQ	> 25000% of AQ

12 month average 2.67%

*Snapshot of tolerance table

Read Rejections due to Mkt Breaker Tolerances

What's happened

- Shipper is having Read Rejections, due to MBT, as a result of the AQ value being too low compared to the current consumption

Existing Options

- Shipper can submit AQ correction on the .AQI file, with a U01 record containing the rejected read (class 3 & 4 only). Where AQ correction passes validation:
  - AQ will be amended
  - Read will be uploaded
  - Reconciliation will be triggered

Ongoing Improvements:

- Query Team "Workaround" – manually replace the read, this will avoid a consumption adjustment being required.

RGMA Rejections due to Mkt Breaker Tolerances

What's happened

- Shipper is having RGMA Rejections, due to MBT, as a result of AQ value being too low compared to current consumption

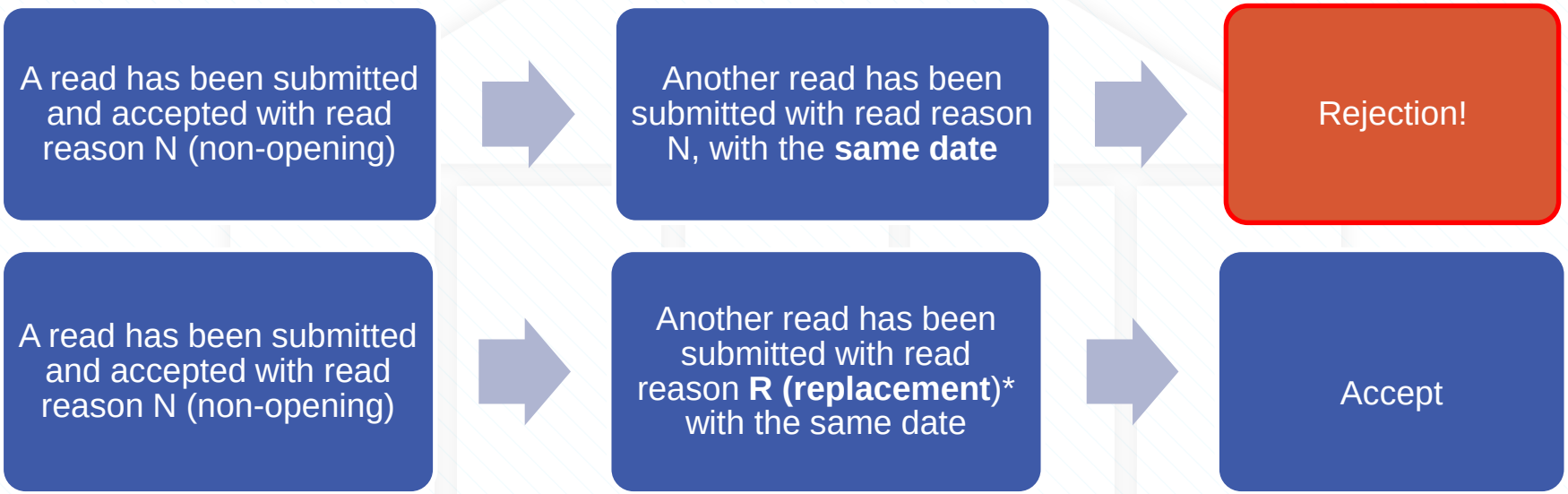
Existing Options

- Shipper can submit a ONUPD file (without an Off-state Read)
  - This is a workaround, which will result in an inaccurate final Read & consumption prior to the RGMA activity
- An estimated final read will be generated in line with the AQ for the period and where necessary an opening read of zero
- A consumption adjustment after RGMA activity is accepted, will be required to correct the period up to the RGMA final read

Potential Outcomes:

- Accuracy of the AQ will be impacted until the consumption adjustment has been processed and corrects consumption prior to the RGMA update
  - AQ will be triggered following receipt of a subsequent read and will utilise the revised consumption
- RGMA update will allow subsequent reads to flow

MRE01016 Actual Read can only be replaced by a replacement read



If you need to change a read, you must submit with a read reason of R for replacement.

* Any replacement reads with the same date, the same read and the same TTZ count will be rejected as MRE00436 - The Meter Point already has a read for this date.

12 month average 12.72%

MRE00489 Non-opening reading received outside the read receipt window

Class 3

- EUC 1 – Received a read after D + 10 (calendar days) from the read date.
- EUC 2-9 - Received a read after M +10 (calendar days) from the read date.

Class 4

- Received a read after 25 business days from the read date.

12 month average 6.89%

MRE00457 New Meter Reading is less than previous meter reading
MRE01026 Reading breached the lower outer tolerance

Both of these rejection codes mean the read that has been submitted is lower than the previous read denoting that there is negative consumption.

- Potentially a round the clock count needs to be provided, along with the read.
- Potentially a read has been submitted, however the Shipper has not submitted an RGMA flow for a meter exchange, for a date prior to the submitted read date.
- Potentially previous read was derived following an RGMA being submitted without reads. These derived reads are treated as actual reads.

*If a convertor is present only MRE00457 will be received where the meter reading is less than the previous meter reading, however the convertor reads are aligned.

MRE00457 12 month average 6.06%
MRE01026 12 month average 6.17%

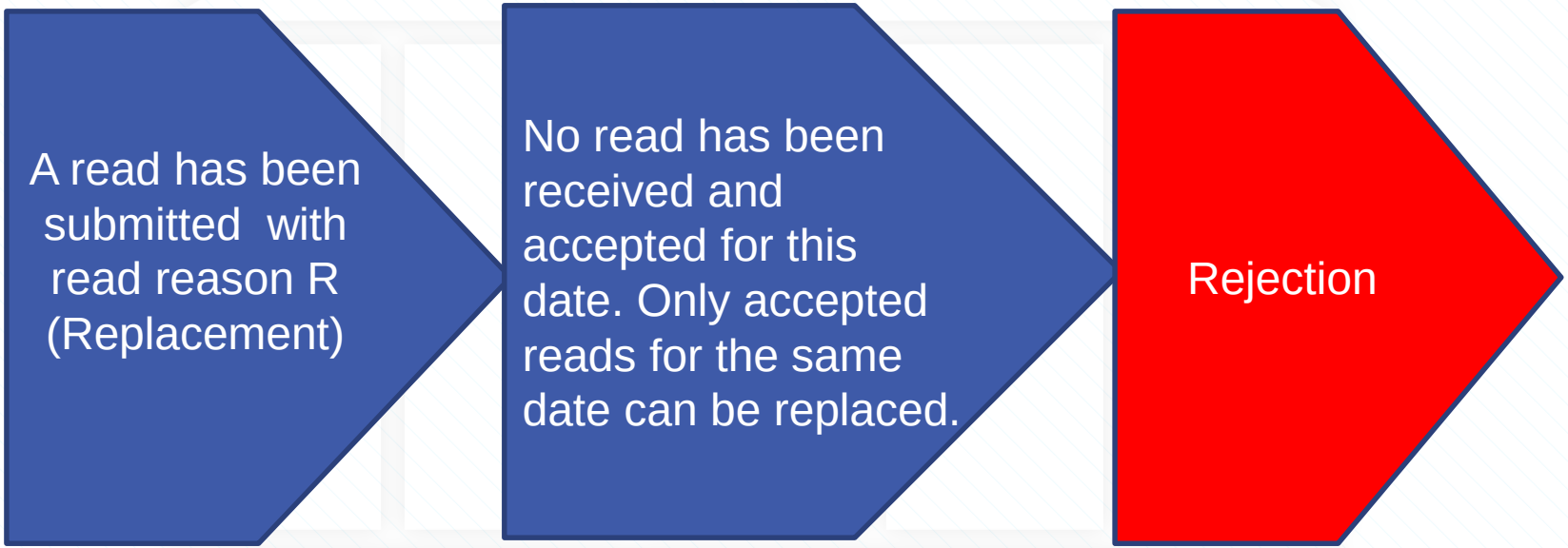
MRE00419 The meter serial number on the read does not agree with the meter serial number held on the Transporter Database

- This means the serial number provided on the read does not match the serial number on UK Link.

- A potential reason for rejection is that a physical meter exchange has taken place but an RGMA update has not been submitted or has been rejected.

12 month average 2.83%

MRE00482 Meter Point has no Read to be replaced



12 month average 1.39%

Other Rejection Codes

MRE01032 - MPRN received in an incorrect file based on its class on the read date

The Class of the site on the date of the read determines the file the read is sent on		
Class 2 UDR file	Class 3 UBR file	Class 4 UMR file

A Read has been marked as Unassured as a result of two reads being rejected within a batch

Not Really a rejection code as no rejection file will be received

Class 3, EUC 1 sites only (MOD 700 affected sites)

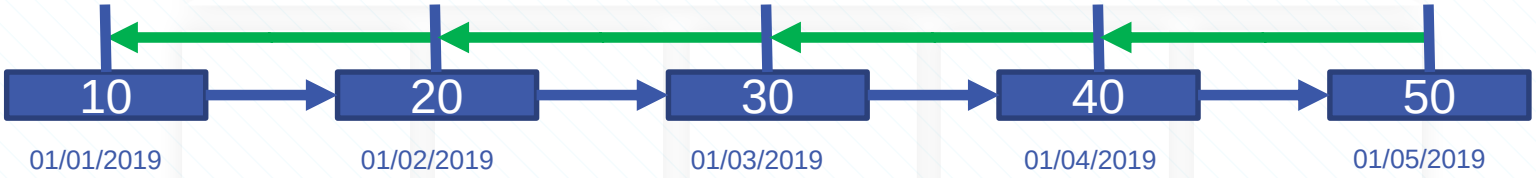
A batch of Class 3 reads have been received for a site and 2 reads from the batch have been validated and rejected.

All other reads in the batch have not been validated but have been marked as unassured and will be reported to the Performance Assurance Committee

Read Replacements
Class 4

Background

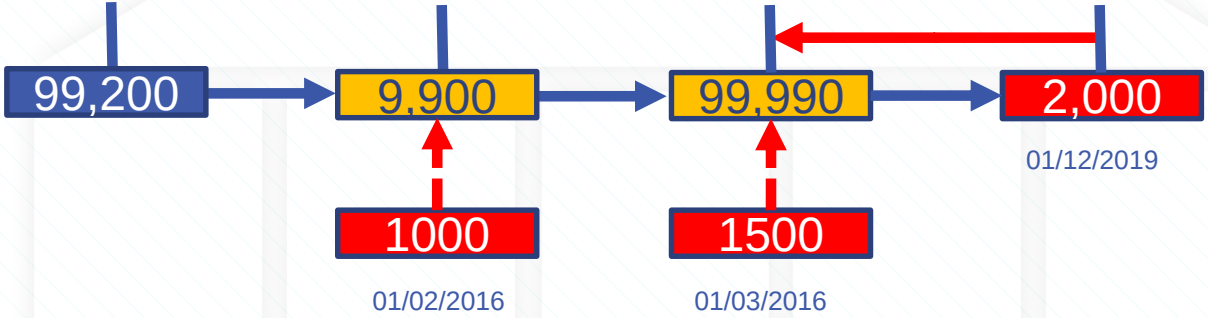
- In an ideal world every read recorded would align with the previous read submitted and current AQ.



- Due to historical validation, migration of inaccurate data, late meter exchanges and some process constraints read history can prevent further reads from being submitted.

Scenario 1 – Historical Inaccurate Reads

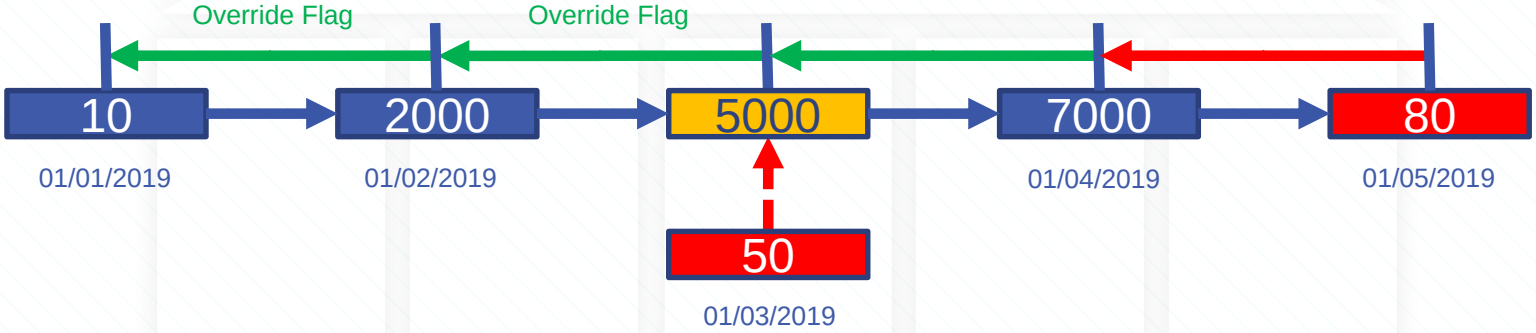
- Where the last actual read is incorrect and pre-dates Nexus implementation (01/06/2017)



- IGT sites: the read to be replaced cannot be replaced due to being recorded pre 01/06/2017

Scenario 2 – Bulk Reads

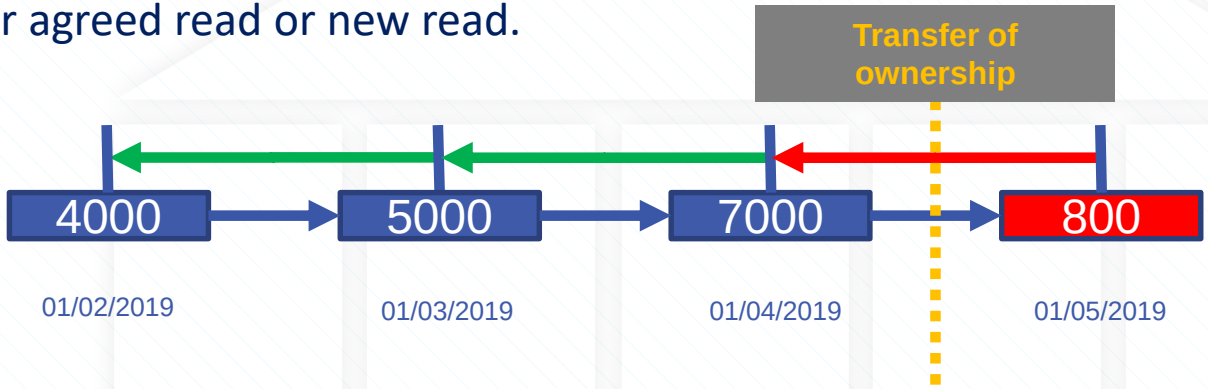
- Where more than one erroneous read has been recorded in the system the tolerance validation can make these impossible to replace without manual assistance.



- More often than not this is due to the submission of decimals as the actual read by an end user or faulty remote reading equipment and is caught too late. i.e. 2 or more reads have been recorded.

Scenario 3 – System/Process issue

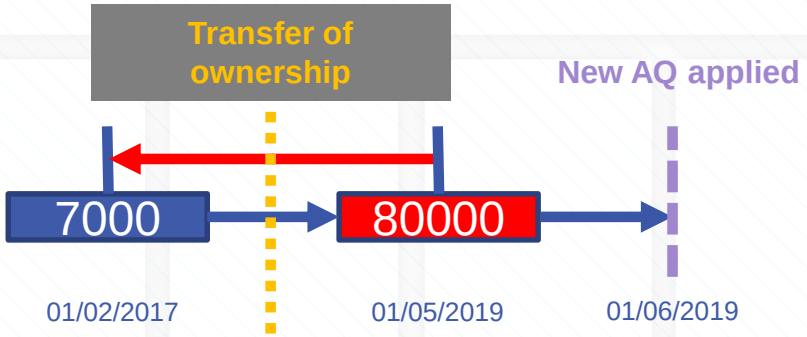
- Often an incoming Shipper takes ownership of a site and is unable to record/replace their agreed read or new read.



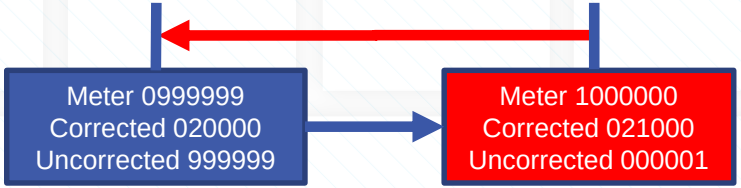
- The query team will investigate and advise action to be taken and where a rejection has been received due to a system

Previous Scenarios Now Resolved with System Changes

- Replacement of Transfer Read where Market Breaker Tolerance rejection received (MRE01027).



- Replacement of Uncorrected Read where submitted read is lower and no provision for Round The Clock count within the file.



Scenario 4 - Other

- Often an incoming Shipper takes ownership of a site and is unable to record/replace their agreed read or new read. Where this occurs currently a Shipper is able to raise a query using our online form: https://servicedesk.xoserve.com/Portal/. This method is under review to establish if this should be a separate business process or sit with the query process as it is causing high volumes of queries.

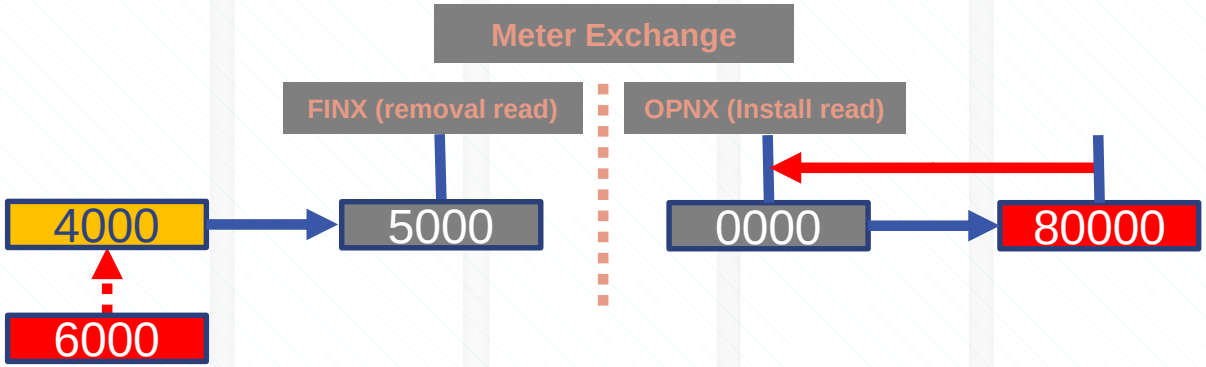
- The query team will investigate and advise the action to be taken and where a rejection has been received due to a system.

- Where the system functionality/tolerance allows we will advise the action to be taken by the Shipper. If the read cannot be replaced by the Shipper and there is an obvious error, the Query team will replace manually.

Scenarios where we are unable to replace reads

- RGMA activity. Any read recorded related to meter updates cannot be replaced. A work around would be needed to resolve these:

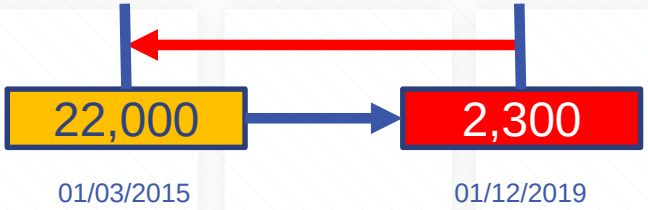
If the RGMA read is preventing further submissions due to tolerance rejections, a corrective exchange would normally be required.



If the resulting volume prior to the latest RGMA transaction is incorrect, an RFA contact (Request For Adjustment) can be submitted to correct the volume as the reads cannot be amended.

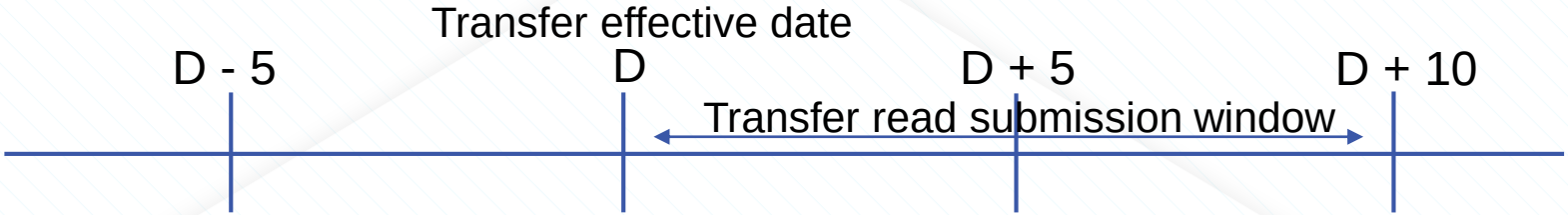
Scenarios where we are unable to replace reads

- The last actual read pre-dates original Nexus Line in the Sand. If the read to be replaced is recorded on a date prior to 01/04/2015 we are unable to manually replace this read.



Opening Meter Reads

Shipper Transfers - Class 4 to Class 4

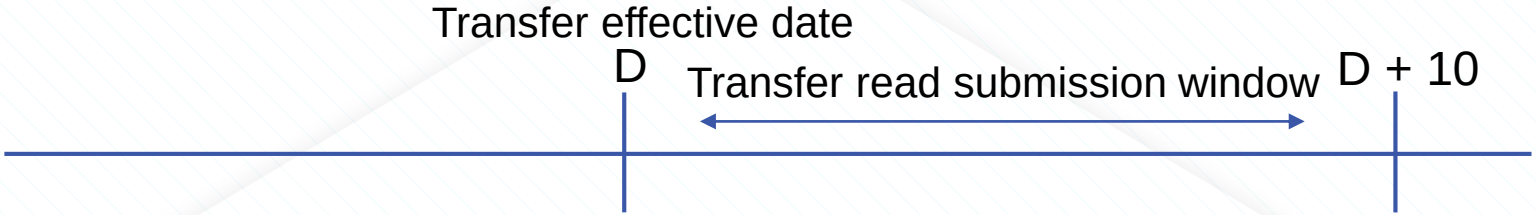


- An Opening Read can be received for a read date between D-5 to D+5 business days and can be submitted until D+10 business days.

- If an opening read is not received within D+10 business days, an estimated opening read will be created at the end of read submission window i.e. after D+10.

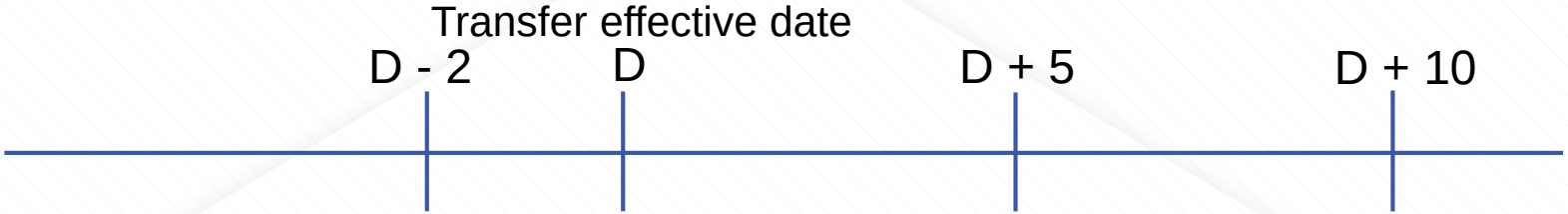
- The following events can trigger an early estimation of the opening read, if received for a date between D to D+10:
  - Class change
  - RGMA transaction
  - LDZ change
  - Non opening read/Must read

Shipper Transfers - Class 3 to Class 3



- An Opening Read must be submitted for the read date D and can be submitted until D+10 business days.
- If an opening read is not received within D+10 business days, an estimated opening read will be created at the end of read submission window i.e. after D+10.
- The following events can trigger an early estimation of the opening read, if received for a date between D to D+10:
  - Class change
  - RGMA transaction

RGMA and shipper transfers: Class 3s and 4s

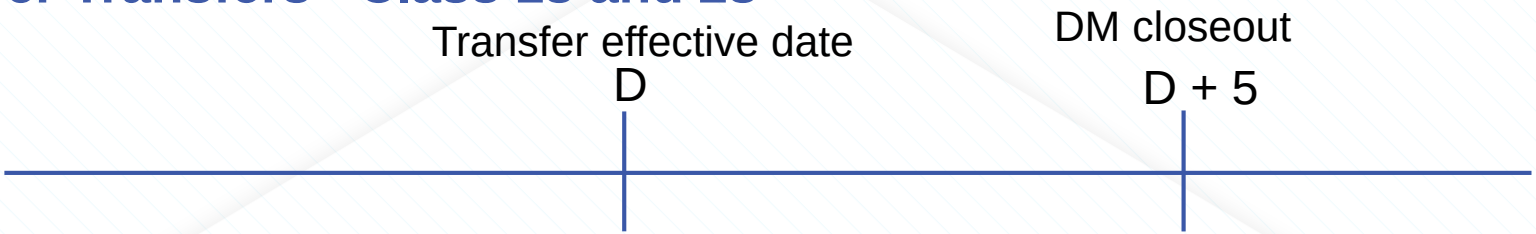


- Class 4: An RGMA transaction received with reads from the incoming shipper within the transfer read submission window (D+10) for an appointment date between D-2 to D+5 business days will be used to satisfy the opening read.
- Class 3: An RGMA transaction received with reads from the incoming shipper within the transfer read submission window (D+10) for an appointment date of D will be used to satisfy the opening read and for an appointment date between D+1 to D+5 business days will be used to trigger the estimation of the opening read.

- An RGMA transaction received with reads from the incoming shipper within the transfer read submission window (D+10) for an appointment date between D+6 to D+10 business days will be used to trigger the estimation of the opening read.

- An RGMA transaction (ONUPD) received without reads from the incoming shipper within the transfer read submission window (D+10) for an appointment date between D to D+10 business days will be used to trigger the estimation of the opening read.

Shipper Transfers - Class 1s and 2s



- An Opening Read must be submitted for the transfer read date D.
- A daily estimated read is created for the transfer date which is replaced by an actual transfer read received for the D date.
- Actual read received within D+5 calendar days feeds allocations and received after closeout (D+5) feeds reconciliation.
- For Class 2 shipper transfers, an actual/estimate transfer read can be replaced by a SAR (shipper agreed read).

Opening Read notification

Class 3s and 4s:

- Estimated opening reads are notified to the outgoing and incoming shippers via MBR (M03) files.
- Actual opening reads or replacements (SARs) are notified to the outgoing and incoming shippers via URN (U03 and U04) files.

Class 1s and 2s:

- Estimated opening reads are notified to the outgoing and incoming shippers via MDR (M00) files.
- Actual opening reads are notified to the outgoing and incoming shippers via URN (U03 and U04) files for class 2s and via MDR (M00) files for class 1 shipper transfers.

- **Opening reads and replacements (SARs) are also visible to the outgoing and incoming shippers on DES (XRN 4576)**

Shipper Agreed Reads (SARs)

- Estimated opening reads can only be replaced by a Shipper Agreed Read (SAR) i.e. a read with source ‘A’ and reason ‘R’ for read date D.

- UNC Section M 5.13.12 states:

  The Proposing User may notify to the CDSP a revised value of a Meter Reading (an “Agreed Opening Meter Reading”) which is agreed between the Proposing User and the Withdrawing User as being valid for the same Read Date as, and which is to replace, the Opening Meter Reading (or estimated Meter Reading under paragraph 5.13.7).

- Schedule 11 under SPAA states that the outgoing supplier should create the conditions for the incoming shipper to provide a Shipper Agreed reading to CDSP. This would imply that the read history in the outgoing shipper’s period should be corrected in order for the SAR to be accepted.

Shipper Agreed Reads (SARs): Potential Issues and mitigation

- The last actual read in the outgoing shippers period is notified to the incoming shipper via the TRF/MRI files issued at D-2*. If that read is further replaced or a subsequent read is loaded by the outgoing shipper after D-2, that read is not notified to the incoming shipper which may cause a SAR to fail validation and get rejected.
  - XRN4801 (Nov'20 Release) will allow the last actual read to be visible to the incoming shipper via DES.
  - In the interim, incoming shipper can call the RFI line to enquire about the last actual read before submitting a SAR.

  *There may be some instances where the last actual read may not be provided in the TRF/MRI files, such as where the last read is a RGMA estimated read; such cases are being investigated.

- AMR equipment in the outgoing shipper's period may be faulty causing incorrect read history. This may cause SAR to be rejected.
  - A site visit should be carried out by the outgoing shipper to correct the fault/remove the AMR equipment and provide check reads on the meter and convertor where present.
  - If an RGMA update is sent for AMR removal, actual meter and converter reads should be provided with the RGMA flow to avoid estimates from getting created which may further prevent SAR or cyclic reads from getting loaded.

- If a SAR is not accepted due to the above reasons, the incoming shipper can carry out a dummy meter exchange to allow subsequent reads to load, however the outgoing shipper is unable to raise a Request for Adjustment (RFA) unless the incoming shipper has done a dummy exchange and raised a corresponding RFA.
  - The incoming shipper should inform the outgoing shipper once they carry out the dummy meter exchange and raise a RFA so that the outgoing shipper can also raise an adjustment.

Shipper Agreed Reads (SARs): Potential Issues and mitigation

- SAR could be rejected due to tolerance validation failure because of an incorrect AQ (AQ too low).
  - SAR can be re-submitted along with AQ correction (AQI file) as long as the SAR is dated within the last 6 months.
  - Potentially submit a RFA, which would require a corresponding RFA from the previous shipper

- SAR could be rejected due to inner tolerance validation failures where a SAR is used to replace a read between 2 reads and one of the 2 periods (forward and backward) requires an override flag.
  - A Service incident has been raised to fix the issue where the SAR should be accepted as long as either of the 2 periods needs an override flag and one has been provided.

- The outgoing shipper has agreed a SAR with the incoming shipper but has not received the updated charges on the Amendment invoice and does not know if the SAR has been accepted.
  - If a SAR has been accepted, a notification will be issued to both the parties via a URN file.
  - Transfer reads and SARs are also visible to both shippers on DES.

- SAR could be rejected due to erroneous read(s) in the outgoing shippers period.
  - The outgoing shipper should replace the last incorrect read(s) in his period. If unable to do so, Shipper can submit a query to Xoserve and after full investigation and agreement on questionable Read history, Xoserve will manually replace erroneous Reads, where possible (exceptional cases).
  - Alternatively, Request for Adjustment (RFA) can be submitted from both shippers to adjust consumption appropriately.