XOserve

UK Link Release 3 Session 1

Introduction and Purpose of Document

- Subsequent to Nexus project and the UK Link implementation in 2017, additional requirements have been agreed with the industry are these organised into a development programme and are applied in scheduled releases.
- This document will provide you with the Release 3 changes which are due to go live in November 2018. This pack will provide an overview of the impacted process, alongside exploring the specific impacts and will highlight the changes in a practical manner.
- The changes for release 3 has been broken down into 4 parts (detailed on next slide). Session 1 will look at the changes surrounding read submission. The Primary impacts will be Shippers and Daily Metered Service Providers (DMSP), read submission has a downstream impact on process such as AQ Review and reconciliation.
- More information can be found on Xoserve.com <u>here</u>.



- XRN3656 & 4658 Read Validation Tolerance
- XRN4495 Energy Tolerance Rejection Code
- XRN4431 Reads Failed Market Breaker Tolerance
- XRN4481 Resolution of Penny Mismatches
- XRN4458 Class 4 CSEPS Recon. Variance ID
- XRN4534 Amendment to RGMA Rules for MTR Install Date
- XRN4453 File Format Should have Changes
- XRN4443 File Format Changes Aug 16 Unique Sites (deferred items from CR252)
- XRN4539 New File Level Rejection
- XRN4273 Installed Status of Failed MOD614
- XRN4337 To change the optionality of the Supply Point confirmation reference for the T51 file
- XRN4486 Meter Type O = Orifice to be an acceptable value in file formats and reports
- XRN4538 Insertion of Maximum Number of Occurrences in MID

Changes covered in this pack

Session 2

-Education Pack 1

-Education Pack 2

Read Submission process

High level overview which will be used through the pack.

Read Submitted

- Reads submitted by Shipper or DMSP
- Read submission varies by class

Read Validated

- File format validated in numerous ways
- Read now validated based on energy history

AQ process triggered Revised AQ process could be triggered based on provision of new read

Reconciliatio triggered Reconciliation process could be triggered based on provision of new read

File Format Process Flow

Shipper/DMSP Submits read



File Level Validation

Accepted files are stored and held ready for further processing



UK Link

Functional Validations:

- Read submission
- Asset checks
- Reads (energy)

Incoming **reads submitted** and are sent as CSV files via the IX. Files are **validated** against file formats templates. The data that passes the initial validation is uploaded to UK Link ready for further **Meter Read validation** which is grouped into three levels:

- Read Submission Validation Checks the validity in terms of the Shipper/DMSP who submit the reads & submission window.
- Asset Checks Validation Validates the current asset details held on UK Link against the data received in the read files
- Read Validation Validates the read received against the previous read and performs energy tolerance checks

Response Files

- Class 1 & 2: accepted/rejected and estimated
- Class 3 & 4: accepted/rejected

Trigger for...
Valid read submission
trigger reconciliation and
AQ review processes.

Read Submission

Class 1 meter points: meter reads are provided by DMSP on a DLC file. Reads will normally be received daily on and for the relevant gas flow day (GFD)

Class 2 meter points: meter reads are provided by Shipper in Unbundled Daily Read (UDR) files on a daily basis Reads are normally received daily although on GFD+1

Class 3 meter points: meter reads are provided by Shipper through Unbundled Batch Read (UBR) files these are Daily Reads but are sent in batches

Class 4 meter points: The Shipper provides meter reads through Unbundled Meter Read (UMR) files. The UMR files are received daily although the read frequency for individual supply meter points can be monthly, half yearly or yearly.

For all classes reads can also be obtained

- Via the RGMA process on the ONJOB and ONUPD files
- Through the site visit process (SFN file for class 3&4 and Portal for class 1&2)
- Though the AQ correction process XRN4431 (see slide 17 for more detail)

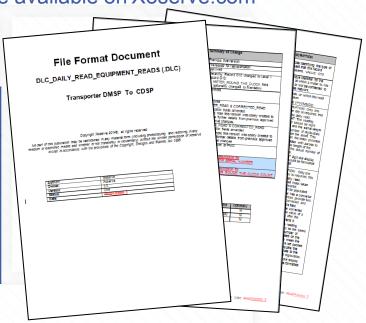
File level Validation

As the files are subject to file level validation. Any discrepancies in the file formats will result in a rejection. The originator will need to correct the error and resend the file.

To help reduce the number of rejections File formats are available on Xoserve.com

Ensure all fields are completed using the key below.

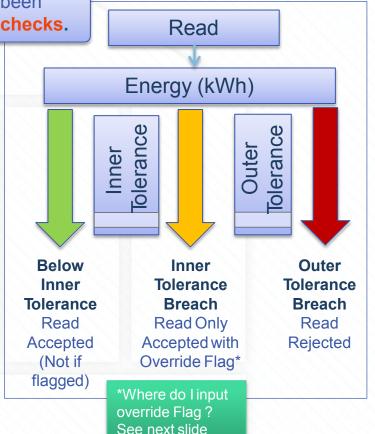
RECORD/FIEL D_NAME	ОРТ	DOM	LNG	DEC	DESCRIPTION
Name will only occur once in file format	Optional/Ma ndatory (O - Optional, M - Mandatory)	Domain (T - text All text fields will be enclosed in double quotes (""), N - Numeric, D - Date (YYYYMMDD), M - Timestamp)	Number of characters	Number of decimal places	Gives more information about the field



Read Validation: Energy Tolerance check

Once the Read Submission Validation and Asset Checkshave been successfully passed UK Link then performs **energy tolerance checks**.

- The system calculates the energy and then checks the energy against permitted tolerance for the AQ band.
- Where the energy falls below the inner tolerancelevel, the read is accepted.
- If the inner tolerance is exceeded but below the outer tolerance (market breaker), the Shipper can override the breach using the override flag and the read will be accepted.
- To prevent bulk override where the override Flag is set, but the energy has not breached the inner tolerance, then the read is rejected.
- If the outer tolerance is breached, then the read is always rejected.



Inputting Tolerance Flag on Read File formats

File formats can be found on Xoserve.com on the link attached.

The field relating to the tolerance flag is shown on the various read file formats as -

RECORD/FIELD NAME	OPT	DOM	LNG	DEC	DESCRIPTION
TOLERANCE_OVERRIDE_FLAG	0	T	1	0	Energy tolerance check override flag VALUE: Blank or Y – Confirmed by the User that the read is correct and should be accepted

Key
OPT - Optional/Mandatory (O - Optional as blank is allowable) DOM - Domain (T - tex) LNG - Number of characters = 1 DEC - Number of decimal places = 0

The description states tolerance override flag currently has two allowable values only: Blank and Y. Y is confirming that that the read is higher than the lower tolerance but is correct.

XRN4495 - Energy Tolerance Rejection Code – This change does not change the way the flag is added, only that it was identified that there were instances where the value of N has been provided in this field and this had been accepted and issued in the transfer read notification files.

This change will ensure that any incoming read requests received (from Shippers and DMSPs) with a Tolerance Override Flag value other than 'Y' or blank will be rejected with new rejection codes.

- MRE01038 'Non allowable value in Tolerance Override Flag' will be used for Shippers.
- TOL00009- 'Non allowable value in Tolerance Override Flag' will be used for DMSPs.

Current Tolerances for Class 3&4 Meter Points

The following table details the validation bands that will be applied for each of the AQ Bands for Class 3 &4 sites.

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 AC	
2	200	0% - 10000% of AQ	> 10000% - 25000% of AQ	> 25000% of AC	
201	500	0% - 4000% of AQ	> 4000% - 10000% of AQ	> 10000% of AC	
501	1000	0% - 2000% of AQ	> 2000% - 5000% of AQ	> 5000% of AC	
1001	5000	0% - 400% of AQ	> 400% - 2000% of AQ	> 2000% of AC	
5001	10000	0% - 200% of AQ	> 200% - 500% of AQ	> 500% of AC	
10001	20000	0% - 150% of AQ	> 150% - 400% of AQ	> 400% of AC	
20001	73200	0% - 300% of AQ	> 300% - 600% of AQ	> 600% of AC	
73201	732000	0% - 250% of AQ	> 250% - 550% of AQ	> 550% of AC	
732001	2196000	0% - 200% of AQ	> 200% - 500% of AQ	> 500% of AC	
2196001	29300000	0% - 150% of AQ	> 150% - 450% of AQ	> 450% of AC	
29300001	58600000	0% - 100% of AQ	> 100% - 400% of AQ	> 400% of AC	
58600001	99999999999999	0% - 100% of AQ	> 100% - 350% of AQ	> 350% of AC	

Current Tolerances for Class 1 & 2 Meter Points

The following table details the validation bands that will be applied for each of the SOQ Bands for Class 1 & 2 sites.

Read Rejected	ad Accepted with Tolerance flag	Read Accepted without Tolerance flag	wer SOQBand Upper SOQ Band	
> 7000000% of SOC	> 2000000% - 7000000% of SOQ	0% - 2000000% of SOQ	1	0
> 25000% of SOC	> 10000% - 25000% of SOQ	0% - 10000% of SOQ	200	2
> 10000% of SOC	> 4000% - 10000% of SOQ	0% - 4000% of SOQ	500	201
> 5000% of SOC	> 2000% - 5000% of SOQ	0% - 2000% of SOQ	1000	501
> 2000% of SOC	> 400% - 2000% of SOQ	0% - 400% of SOQ	5000	1001
> 500% of SOC	> 200% - 500% of SOQ	0% - 200% of SOQ	10000	5001
> 400% of SOC	> 150% - 400% of SOQ	0% - 150% of SOQ	20000	10001
> 600% of SOC	> 300% - 600% of SOQ	0% - 300% of SOQ	73200	20001
> 550% of SOC	> 250% - 550% of SOQ	0% - 250% of SOQ	732000	73201
> 500% of SOC	> 200% - 500% of SOQ	0% - 200% of SOQ	2196000	732001
> 450% of SOC	> 150% - 450% of SOQ	0% - 150% of SOQ	29300000	2196001
> 400% of SOC	> 100% - 400% of SOQ	0% - 100% of SOQ	58600000	29300001
> 350% of SOC	> 100% - 350% of SOQ	0% - 100% of SOQ	99999999999999	58600001

New Tolerances for Class 3 & 4 Meter Points only

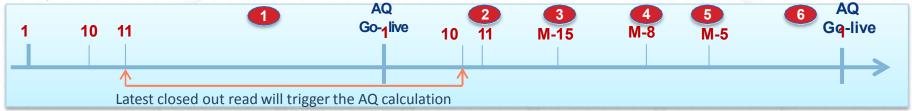
- XRN3656 & XRN4658 Read Validation Tolerance changes will introduce an amendment to the current meter read tolerance bands that are used to validate incoming readings. XRN3656 The current validation band of 2kWh-200kWh will be split into two new bands of 2kWh-100kWh and 101kWh-200kWh with new tolerance values associated to them with a wider tolerance on the lower level of the two bands. XRN4658 increases outer tolerance of certainAQ bands.
- The following table details the new validation bands that will be applied for each of the AQBand:

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 AC
2	100	0% - 20000% of AQ	> 20000% - 45000% of AQ	> 45000% of AC
101	201	0% - 10000% of AQ	> 10000% - 25000% of AQ	> 25000% of AC
201	500	0% - 4000% of AQ	> 4000% - 55000% of AQ	> 55000% of AC
501	1000	0% - 2000% of AQ	> 2000% - 25000% of AQ	> 25000% of AC
1001	5000	0% - 400% of AQ	> 400% - 7000% of AQ	> 7000% of AC
5001	10000	0% - 200% of AQ	> 200% - 2000% of AQ	> 2000% of AC
10001	20000	0% - 150% of AQ	> 150% - 1100% of AQ	> 1100% of AC
20001	73200	0% - 300% of AQ	> 300% - 1100% of AQ	> 1100% of AC
73201	732000	0% - 250% of AQ	> 250% - 1000% of AQ	> 1000% of AC
732001	2196000	0% - 200% of AQ	> 200% - 1000% of AQ	> 1000% of AC
2196001	29300000	0% - 150% of AQ	> 150% - 700% of AQ	> 700% of AC
29300001	58600000	0% - 100% of AQ	> 100% - 400% of AQ	> 400% of AC
58600001	9999999999999	0% - 100% of AQ	> 100% - 350% of AQ	> 350% of AC

How do reads affect AQ?

Firstly what is AQ? The Annual Quantity measured in kWh is the energy a site is expected to use in 1 year. AQ influences a number of processes, but for the validation of meter readings, the AQ will determine which Lower and Upper AQ tolerance band a reading will be validated against.

When a valid read is accepted, the AQ calculation is triggered (this may not result in a change in the AQ value). The timeline for this process is detailed below.



- Any valid read received on or before 10th of the month will flag that the AQ calculation is required
 - On 11th of the month, the **AQ calculation executes**. The calculation considers initial reads for either;
 - 365 days (optimum period) but no older than backstop date.
 - A minimum of 9 months is required in order to calculate.
- At M-15 AQ Correction Closeout window. AQ corrections received after this period will be applied the following month
 - At **M-8 AQ Correction Cancellation Closeout**. AQ correction can be cancelled up to this point. After this date, the system will apply the AQ correction.
- At **M-5 Notification (NRL)** sent to shippers of AQ revision or failed AQ revision (e.g. insufficient data)
- Revised AQ goes live. The backstop date is updated when the AQ is corrected. Therefore AQ cannot be corrected for a further 9 months

There is more information on AQ contained within the Xoserve Information Library here.

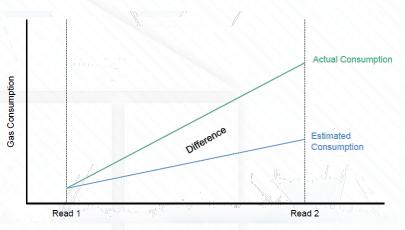
AQ Correction process

- As mentioned in the previous slide there is an AQ correction process which is outlined below.
- AQ correction using the AQI File
- Registered or Proposing Shipper can request a change in AQ via the AQ Correction Process.
- Accepted AQ value will be changed with effect from the first of the month following the request being accepted. The User will be notified of the AQ change via the NRL File at M-5.
 - AQ Correction request goes live on the1st of next month. The AQ Correction Closeout window will be
 - M-15 of the current month. AQ corrections received after this period will be applied the following month.
 - M-8 AQ Correction Cancellation Closeout. AQ correction can be cancelled up to this point. After this
 date, the system will apply the AQ correction. If the AQ Correction cancellation request is received after
 the close out period, the request will be rejected
- A backstop date is applied when the AQ is corrected. Therefore AQ cannot be corrected for a further 9
- months.
- The industry requires meter reads that accompany the AQ correction to be validated using the corrected AQ, and where successful, loaded and used in the downstream processes, therefore **XRN4431 Acceptance of reads failing Market Breaker Tolerance following AQ Correction** facilitates this to change by including the U01 in the hierarchy and the read is validated against the *requestedAQ*.

How do reads affect reconciliation?

Reconciliation relies on actual meter reads being submitted; readings can be received for a variety of reasons including:

- Class 1 & 2 actual read received following a period of estimates. Where the estimated reads are outside close out [D+5]
- Class 3 batch of actual reads
- Class 4 actual reads received dependent on read frequency
- RGMA Activity
- Annual check reads
- Class 3 & 4 estimated shipper transfer & class change readings



Reads that follow the above scenarios on each site will trigger reconciliation. At a high level UK Link looks at the current read received and then back to the previous read. It then calculates any difference in energy between what was allocated and invoiced via the commodity invoice and what has actually been used. This difference is charged on the Amendments invoice and can have a positive or negative value.

For more information on the Amendments Invoice please refer to https://www.xoserve.com/wp-content/uploads/AmendmentsInvoice.pdf