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Project Nexus Workgroup Meter Read Validation – Updated following meeting on 4th November 4th November 2014

Background

- The meter read validation principles were developed under ‘The Settlement’ BRD and formed part of Modification 0432.
- The new read validations and tolerances are documented in the ‘Uniform Network Code Validation Rules’
- Concerns have been raised that the read validation tolerances may not be appropriate, particularly for Smaller Supply Points
- Analysis has been carried out by both British Gas and e-on on the tolerances proposed which has highlighted some issues with the current proposed tolerances
- As a result of this analysis Xoserve have carried out further analysis on both NDM and DM Supply Meter Points
- The following slides provide a summary of the results and proposals for changes to the tolerances

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Summary of the Issues Identified to Date

- The tolerances for SSPs in Class 4 will not allow for a read that produces a zero consumption to be accepted without the ‘Override Flag’
- Market Breaker Tolerances for all Classes for Larger Supply Meter Points appears too low, particularly for DM Supply Meter Points
- Where the AQ has reduced over a period of time due to low consumption and the Supply Meter Point starts consuming again, the current tolerances may prevent a read from being loaded
 - Scenario generally applies to SSP’ s that are ‘vacant’
- High consumptions due to the ‘Through the Zero’ count not being populated on the read file
- For Supply Meter Points there are high number of rejections due to low AQ

Background to the Analysis carried out by Xoserve

- Test 1
 - For NDM Supply Meter Points 495,039 MPRNs were used in the analysis and treated as Class 4 for validation processes
- Test 2
 - For NDM Supply Meter Points 497,118 MPRNs were used in the analysis and treated as Class 4 for validation processes
 - For DM Supply Meter Points 1,317 MPRNs were used in the analysis and treated as Class 1 or 2 for validation processes
- The rules used were based on the BRD and for Test 1 the set of proposed tolerances presented in August and for Test 2 the updated tolerances proposed at the 4th November meeting
- The profiling used the latest actual meter read recorded in **October 2015** and proceeding actual meter read.

Summary of the Analysis using the Tolerances Presented in August (Test 1)

- For NDM Supply Meter Points tested;
 - 96.8% (479,219) were accepted without the need of any override flag
 - 1.5% (7,595) were accepted but required the override flag
 - 1.6% (8,225) failed due to the Outer tolerance (Market Breaker test)

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Reason for Failure (Test 1) – NDM Supply Meter Points

- Total of 15,820 MPRNs;
 - 21% (3,279) failed due to the consumption being less than zero, TTZ count incorrect.
 - 32% (5,069) failed due to the AQ being less than the total consumption for the period. AQ less than 1,000
 - 47% (7,472) failed due to the AQ being less than the total consumption for the period. AQ greater than 1,000

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Observations

- Following observations made from the NDM analysis
 - Reads being submitted that are less than the previous read
 - Reads submitted with the ‘Meter through the Zero Count’ (TTZ) as 0 but should clearly be 1 or greater
 - Where the AQ = 1 reads are failing the Market Breaker test
 - Where AQ less than 10,000, high percentage of read failures due to high consumptions

Summary of the Analysis using the Tolerances Presented Today (Test 2)

- For NDM Supply Meter Points tested;
 - 98.7% (490,897) were accepted without the need of any override flag
 - 0.0% (1) were accepted but required the override flag
 - 1.3% (6,220) failed due to the Outer tolerance (Market Breaker test)
- For DM Supply Meter Points tested;
 - 99.8% (1314) were accepted without the need of any override flag
 - 0.2% (2) were accepted but required the override flag
 - 0.08% (1) failed due to the Outer tolerance (Market Breaker test)

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Reason for Failure (Test 2) – NDM Supply Meter Points

- Total of 6,221 MPRNs;
 - 53% (3,283) failed due to the consumption being less than zero, TTZ count wrong.
 - 34% (2,118) failed due to the AQ being less than the total consumption for the period, AQ less than 1,000
 - 13% (820) failed due to the AQ being less than the total consumption for the period, AQ greater than 1,000

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Xoserve Recommendations

- For all Classes and all Supply Meter Points allow zero consumption reads to be submitted without the need of the Override Flag
- Lower the Market Breaker upper tolerances, especially for Class 2 as currently allows a daily read to be accepted that is 7 x the SOQ
- Validate reads for Class 3 meter points against the AQ not the SOQ
 - Class 1 and 2 validated against the SOQ as this is a Shipper nominated value. For Class 3 the SOQ is derived so therefore may not account for changes and likely to fail
- Make the 'Through the Zero' (TTZ) count mandatory on all read files
- Reads are validated against the last actual read not an estimated read
- Override Flag not required for meter points with an AQ less than 20,000 kWh, Market Breaker tolerance only
- Following the Workgroup meeting on 4th November it was recommended an additional AQ band would be required to split the Meter Points with an AQ of less than 30,000 kWh

Proposed Tolerances for DM Supply Meter Points (Classes 1 & 2)

Tolerances for a daily read received following an actual read

Lower AQ band (kWh)	Upper AQ band (kWh)	Tolerances where read will be accepted	Tolerances where a Read Accepted if submitted with an Override Flag (Inner Tolerance)	'Market Breaker' tolerance where Read Rejected (Outer Tolerance)
0	15,000	0% - 699% of SOQ	N/A	=> 700% of SOQ
15,001	30,000	0% - 500% of SOQ	501% - 699% of SOQ	=> 700% of SOQ
30,001	73,200	0% - 400% of SOQ	401% - 599% of SOQ	=> 600% of SOQ
73,201	732,000	0% - 300% of SOQ	301% - 549% of SOQ	=> 550% of SOQ
732,001	2,196,000	0% - 250% of SOQ	251% - 499% of SOQ	=> 500% of SOQ
2,196,001	29,300,000	0% - 250% of SOQ	251% - 449% of SOQ	=> 450% of SOQ
29,300,001	58,600,000	0% - 200% of SOQ	201% - 399% of SOQ	=> 400% of SOQ
58,600,001	and above	0% - 150% of SOQ	151% - 399% of SOQ	=> 400% of SOQ



Proposed Tolerances for NDM Supply Meter Points (Classes 3 & 4)

Tolerances for a periodic read received following an actual read

Lower AQ band (kWh)	Upper AQ band (kWh)	Tolerances where read will be accepted	Tolerances where a Read Accepted if submitted with an Override Flag (Inner Tolerance)	'Market Breaker' tolerance where Read Rejected (Outer Tolerance)
0	15,000	0% - 19,999% of AQ/365 x no. of days	N/A	=>20,000% of AQ/365 x no. of days
15,001	30,000	0% - 600% of AQ/365 x no. of days	601% - 999% of AQ/365 x no. of days	=>1,000% of AQ/365 x no. of days
30,001	73,200	0% - 650% of AQ/365 x no. of days	651% - 899% of AQ/365 x no. of days	=>900% of AQ/365 x no. of days
73,201	732,000	0% - 450% of AQ/365 x no. of days	451% - 699% of AQ/365 x no. of days	=>700% of AQ/365 x no. of days
732,001	2,196,000	0% - 400% of AQ/365 x no. of days	401% - 599% of AQ/365 x no. of days	=>600% of AQ/365 x no. of days
2,196,001	29,300,000	0% - 300% of AQ/365 x no. of days	301% - 499% of AQ/365 x no. of days	=>500% of AQ/365 x no. of days
29,300,001	58,600,000	0% - 200% of AQ/365 x no. of days	201% - 399% of AQ/365 x no. of days	=>400% of AQ/365 x no. of days
58,600,001	and above	0% - 100% of AQ/365 x no. of days	101% - 299% of AQ/365 x no. of days	=>300% of AQ/365 x no. of days

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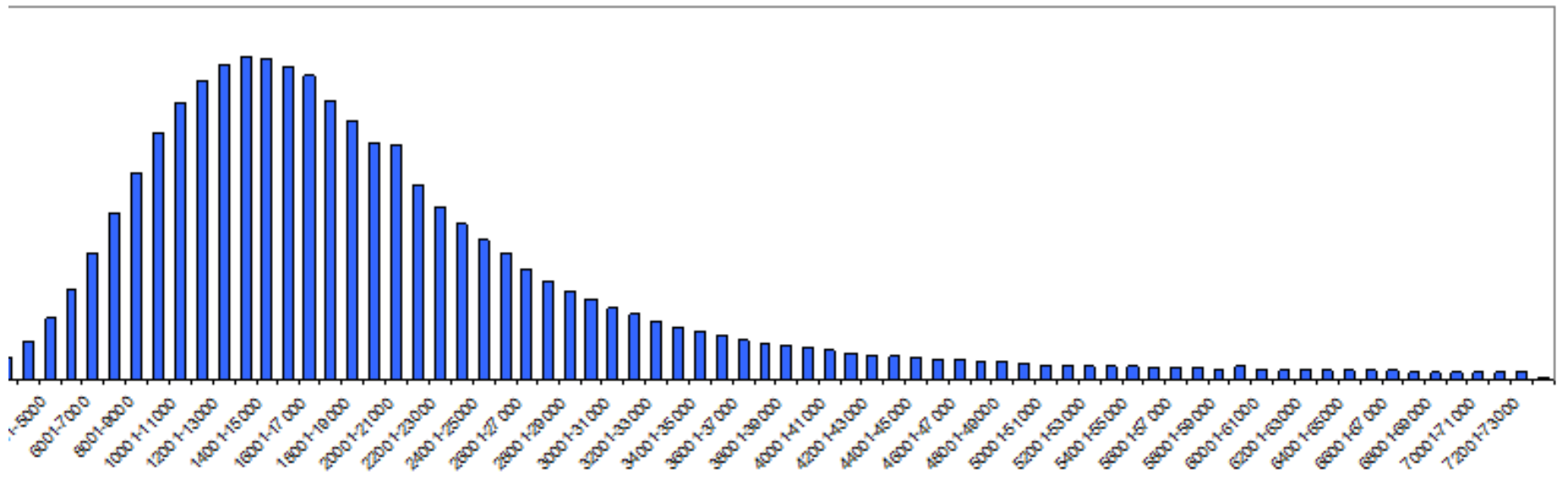
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AQ breakdown Smaller Supply Points

Action NEX0902 09/09/14 3.3

To provide a profile for an AQ tolerance band with a range of 0 – 75,000 (to assist in assessing the proposed new (inner) tolerance band for 0 – 20,000).

% of Total AQ



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Next Steps

- Shippers to check the proposed tolerances on a sample of Meter Points
- At the December meeting review the tolerances and results of Shipper analysis
- Update tolerances where required
- Approve tolerances
- Update UNC Validation Rules and submit for approval

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