# PN UNC
# AMR Topic Workgroup

## Meeting 18: Option for Meter Reading Validation

## 22nd February 2011

# Introduction & Objectives

- Following slides are possible options for validation of meter reads – actual or estimated reads
- The validation options are intended to assist discussions & further debate, they are not xoserve's proposals
- Meter reading validation obligations to remain with the Shipper.
- GT to continue to perform logical checks only on the read
- Objective of validations;
  - Cost effective validation routines at the correct point in the process & by the right party
  - Checks to ensure only accurate reads are loaded
  - Reduce the number of erroneous rejections
  - Significantly reduce number of read rejections (filter failures) at charge creation
  - Continue to protect industry allocation processes & RbD smears
  - Improve data quality
  - Accurate charging

# Summary of Proposed AMR Validation Rules

- Minimum requirements for Shipper Validation;
  - Completeness check to ensure all readings expected have been received
  - Reading checked to ensure it is within a specified range either side of an estimated reading: Inner Tolerance Range (ITR)
  - Further tolerance check for consumptions over X applied to ensure the reading is within a wider tolerance range of the estimated reading; Outer Tolerance Range (OTR)
  - Check on the convertor reading to ensure it is reading meter pulses correctly (Meter Volume – Uncorrected Convertor Volume)

# Further/Alternative Read Validation for AMR Sites

- Tolerance check on receipt of daily read, reject if;
  - Negative consumption, except after an estimated read
  - Consumption greater than Y x D-7 actual
  - Consumption less than Y x D-7 actual
  - If 3 or more consecutive zero consumption readings are received compare with the same period in previous year
  - “And” test to check if any daily consumption is;
    - Outside the 30 day average non zero consumption by +3.5 Standard Deviations and
    - In excess of [twice] the average daily consumption i.e. AQ/365 x [2]
- Tolerance check on receipt of periodic read, reject if;
  - Negative consumption, except after an estimated read
  - Consumption greater than Y x the estimated allocation for the period
  - Consumption less than Y x the estimated allocation for the period
- Note: The value of ‘Y’ could be different depending on the AQ band

# GT Validations aimed at Removing Filter Failures

- Current Filter Failure process suppresses charges when it fails a tolerance based on the AQ band
  - This is at the end of the process based on £ & p values
- To remove the requirement for “Filter Failures” at charge calculation the system would need to calculate transportation charges on receipt of the read
- This would involve complex & possible timely processing & with the potential volume of reads could result in system constraints
- Possibly need to consider the option of retaining a ‘Filter Failure’ type procedure at charge calculation as a safety net
- So….option;
  - Use tolerance checks based on energy calculated at read receipt against AQ to validate the read

# Strawman Alternative GT Validations to Replace/Reduce Filter Failures

- At read receipt calculate the Reconciliation energy for the Meter Point. Where the energy exceeds a tolerance based on the AQ for the read period the read is rejected
- Would apply to Process 3 & 4 sites only.

| Lower AQ Band | Upper AQ Band | Reconciliation Energy Calculated at Read Receipt: Tolerance |
|---|---|---|
| 0 | 73,199 | Rec Energy + or - X% of AQ/period of read |
| 73,200 | 292,999 | Rec Energy + or - X% of AQ/period of read |
| 293,000 | 731,999 | Rec Energy + or - X% of AQ/period of read |
| 732,000 | 2,195,999 | Rec Energy + or - X% of AQ/period of read |
| 2,196,000 | 5,859,999 | Rec Energy + or - X% of AQ/period of read |
| 5,860,000 | 14,649,999 | Rec Energy + or - X% of AQ/period of read |
| 14,650,000 | 29,299,999 | Rec Energy + or - X% of AQ/period of read |
| 29,300,000 | 58,599,999 | Rec Energy + or - X% of AQ/period of read |
| 58,600,000 | | Rec Energy + or – X% of AQ/period of read |

# Rejections

- Rejection process refined to provide more meaningful rejection codes & reasons
- Facility for the Shipper to “flag” a read on submission to show that it has failed validation but the read has been verified and is correct