July 2016

Meter Error Identification

WALES&WEST UTILITIES

Ofgem RIIO Output

ofgem Making a positive difference for energy consumers

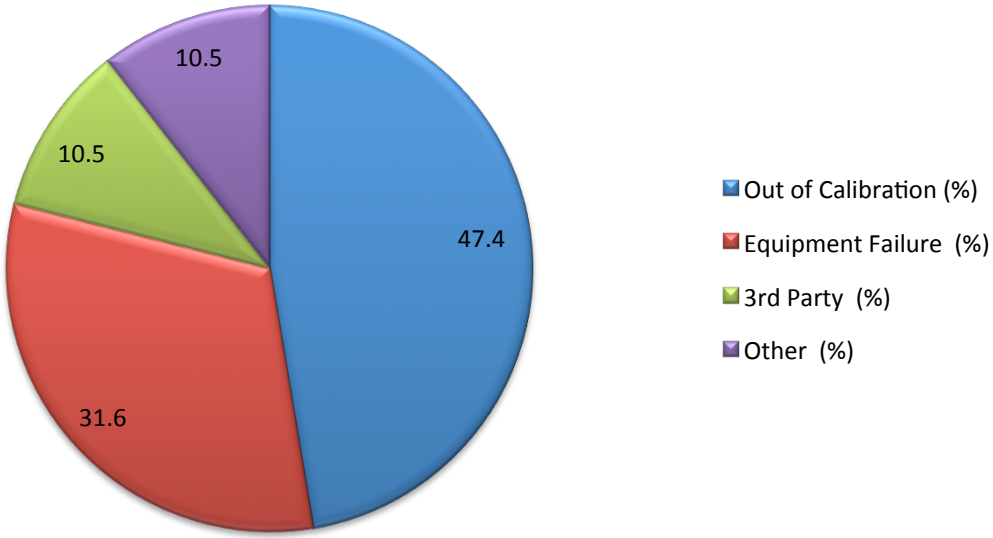
RIIO-GD1 Annual Report 2014-15

Number and value of offtake meter errors

1.2. All GDNs achieved a level of offtake metering errors significantly within the required limit of 0.1% of throughput. Only East of England, and Wales and West reported errors of between 0.001% and 0.028%, the remaining GDNs having none.

Meter Errors

- In 2015 WWU undertook some work to discover how meter errors occur and the best means of preventing them.



CALIBRATION

- 3rd Party

INSTALL & CONFIGURE

- 3rd Party, witnessed and approved by WWU
- Potential risk of incorrect set-up

ALARM REPSPONSE

- WWU Control Centre
- Passed via SAP work order to Network Services

FAULT IDENTIFICATION

- From Alarm
- Identified during site maintenance
- Identified during 6 monthly OFGEM audit
- Identified during ~ 10 yearly MetCo audit

MAINTAIN & REPAIR

- E&I
- Similar risks to the install / configure process. Parameters are fixed during works and need to be reset when complete

- Where the fault is a Meter Error, industry MER processes to share information with shippers and the wider community are completed by Gas Quality in System Ops:
  - Investigation to confirm the size of the error, usually via DNV GL
  - Internal reporting: Board books, KPI
  - External reporting: MER Process (Joint Office), RRP
- High level meter validation is also carried out in the control room to identify step changes after meter works

Causes of Meter Errors

- The most common meter errors are due to equipment being out of calibration.
- It was agreed that:
  - Calibration frequency will increase to 6 monthly from 12 monthly AND
  - Re-Calibration will happen routinely even if found to be within tolerance

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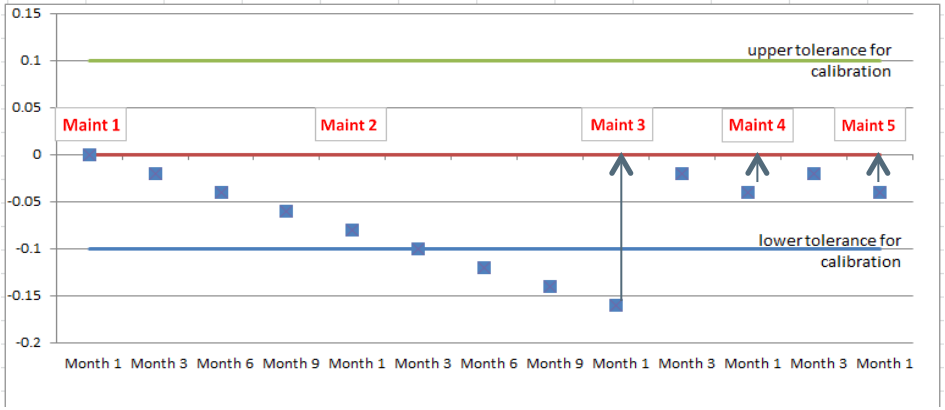
Identification of errors associated with calibration

- Current Practice
  - Maintenance frequency of 12 months
    - See first three maintenances in the graph
  - Recalibration only when tolerance is breached
    - So at Maint 3 rather than Maint 2
  - Error deemed:
    - Error at Maint 3 for half the period of Maint 2 to Maint 3



- New Practice
  - Maintenance frequency of 6 months
    - See Maint 4 and Maint 5 in the graph
  - Recalibration each time
  - Error would be calculated in the same way but would only apply for 3 months and is less likely