DNV·GL

SOFTWARE

Allocation of Unidentified Gas Expert

AUGS Feedback Review

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Agenda

- Introduction
- Issues Raised
- AUGE Responses
  - Actions
- Q&A

Key Issues Raised

- ICoSS
  - UG from Product Classes containing former DMV sites
  - Relative likelihood of theft from Smart Meter or AMR sites
  - Relative likelihood of theft from daily read Product Classes
  - Data used for theft analysis
  - Available information about Smart Meter populations and installation rates
  - Shrinkage error
  - Contact with TRAS

Key Issues Raised

- British Gas
  - Shrinkage Error
  - Implied level of undetected theft
  - Evidence for moving away from uniform weighting factors
  - Asset data inaccuracy
  - Relative likelihood of theft from Smart Meter or AMR sites

Key Issues Raised

- E.ON
  - DM meter error estimation accuracy
  - Meter errors not detected before line-in-the-sand date
  - Unknown sites
  - Smart Meters in Product Class 4
  - Minimum read separation in Consumption Method
  - Balancing Factor extrapolation method

AUG Expert Responses

- Shrinkage Error (ICoSS, British Gas)
  - It is accepted that the assumption of zero bias may no longer hold
  - GRG Shrinkage Study proposes an under-estimate of ≈20%
  - Such a bias would introduce error in the Total UG calculation that artificially inflates this figure by ≈500GWh
  - The calculation will be amended to account for this
    - Remove error from calculation or include and split by throughput
  - GRG study also states that CSEP shrinkage is ignored and goes into UG
  - Estimates this to be 2-5% of Shrinkage total
  - This is directly estimated UG that should be moved out of the Balancing Factor and split by throughput (not theft rate)
  - The calculation will be amended to account for this

AUG Expert Responses

- Relative prevalence of theft (ICoSS, British Gas)
  - Lower and upper limits are both impossible
  - We have to estimate where between these limits the true figure lies

  - Index tampers account for ≈30% of thefts
  - Some will be replaced with other theft methods, others will not
  - Quicker theft detection for Smart Meters is estimated to reduce amount of theft by 20-33% (Department for Business, Energy & Industrial Strategy)
  - Evidence must be removed by thief before meter replacement

  - 50% figure compatible with the above
  - No evidence to favour a different figure

AUG Expert Responses

- UG from former DMV sites (ICoSS)
  - No assumption that this occurs
  - UG from these Product Classes comes from other sites moving into them
  - Behaviour does not change because of Supplier's read frequency

  - Product Classes containing former DMV sites will attract UG
  - Shippers whose Class 2/3 portfolio contains only these sites will now be liable for UG when previously they were not
  - Current AUGE framework means this cannot be avoided
    - Split by Product Class and EUC

AUG Expert Responses

- Theft data (ICoSS)
  - Over 15,000 detected theft records from 2008 to date available
  - Issue lies with asset data

	01B	02B	03B	04B	05B	06B	07B	08B	09B
Traditional	20,854,629	191,541	45,528	18,889	4,545	1,474	508	187	0
DM	37	22	20	56	77	243	198	231	283
AMR/Smart	724,915	613	141	33	10	2	1	1	10
Total	21,579,581	192,176	45,689	18,978	4,632	1,719	707	419	293

  - Theft records do not include meter type
  - Have to check MPRN against asset data
  - Also very early days for detected Smart Meter thefts

AUG Expert Responses

- Smart Meter population and installation rate data (ICoSS)
  - Information gratefully received
  - This will be included in the next draft of the AUG Statement/factor calculation

- TRAS (ICoSS)
  - Initial interaction with TRAS was disappointing
  - Following pressure from the industry we are now directly engaging with them
  - Some data received, more to follow

TRAS

- Attended TRAS Expert Group Meeting 6 April 2017
- SPAA Theft Reporting
  - ***Should*** match TOG reporting but only 30% shipper response
  - TRAS to provide 2 years anonymised data for analysis
  - Includes number of reports from TRAS
- No consideration of SMART meters
- Theft Target

AUG Expert Responses

- Level of undetected theft (BG)
  - For this analysis, all theft for Year Y that will be detected at some point must be taken into account, not just theft detected to date.
  - For 2015 gas year, estimated total detected theft is 181GWh
  - Balancing Factor (with Shrinkage error removed) is 3522GWh
  - Theft detection rate is 5.1%

AUG Expert Responses

- Uniform weighting factors (BG)
  - There are a number of reasons for moving away from uniform factors
  - Products 1, 2 and 3 require Smart Meter/AMR
  - Product 4 will contain large numbers of traditional meters
  - Index tamper not possible on Smart Meters
  - Data from Smart Meters means thefts will be detected more quickly
  - Department for Business, Energy & Industrial Strategy estimated that this effect will account for a reduction of 20-33% in theft from Smart Meters
  - 10% of UG remains from directly-estimated sources

AUG Expert Responses

- DM meter error estimation accuracy (E.ON)
  - Each individual error estimate will contain an error component
  - We are not aware of any evidence that the estimation process is biased
  - Hence errors are assumed to even out
  - We will be happy to review any evidence of bias

- Meter errors not detected before line-in-the-sand date (E.ON)
  - These go into the Balancing Factor
  - Energy value involved is small
    - Reconciled meter error 2011-14 is 12GWh/year
  - Too small to have a significant impact on factors

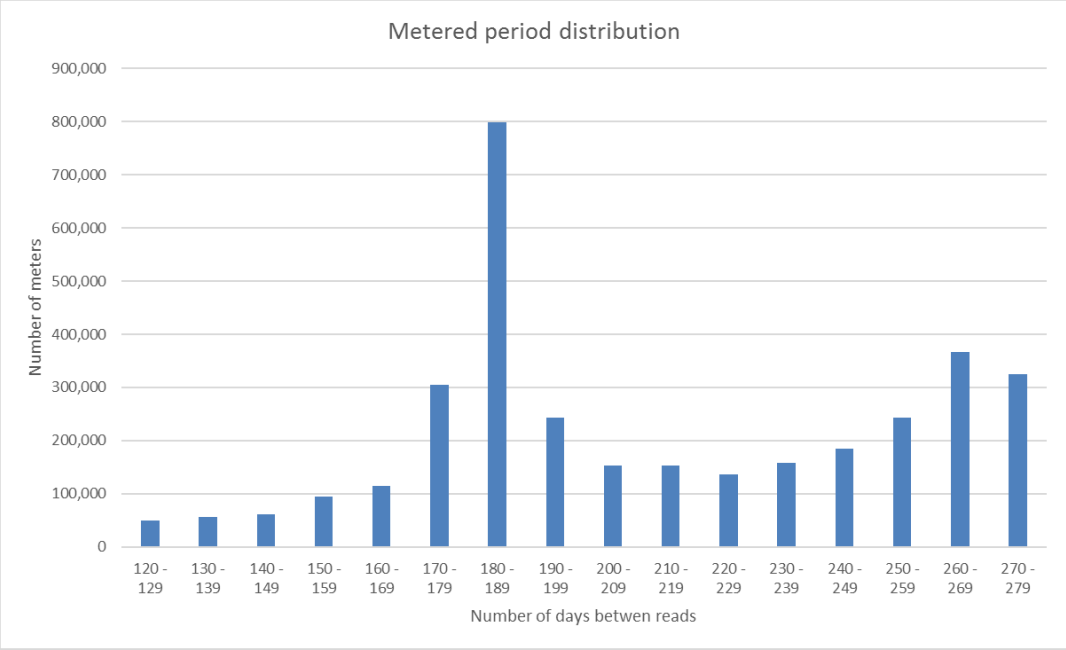
AUG Expert Responses

- Unknown sites (E.ON)
  - These go into the Balancing Factor
  - No evidence that there are significant numbers of such sites
  - No significant impact on the factors

- Smart Meters in Product Class 4 (E.ON)
  - CMA Remedies Document
  - Paragraph 12.150: "With respect to all non-daily metered supply points with a smart or advanced meter, we will impose an order on gas suppliers (and amend the gas suppliers' standard licence conditions accordingly) to submit to Xoserve Valid Meter Readings at least once per month (unless for reasons of malfunction or related issues it was not possible to take such a meter reading)."
  - This does not create a requirement for all Smart Meters to move to Product Classes 2 or 3

AUG Expert Responses

- Minimum read separation in Consumption Method (E.ON)
  - Smaller minimum period used than in AQ calculation process
  - Balance between maximising successful calculations and the accuracy of them
  - 5% of calculations use periods with less than 9 months between reads
  - Over 99% of these are from EUC 01B



Gas Year	Number of Meters
2011	368,646
2012	320,262
2013	462,659
2014	2,291,150

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AUG Expert Responses

- Balancing Factor extrapolation method (E.ON)
  - 11TWh/yr (2009/10) → 4TWh/yr (2011-15)
  - Two potential methods
    - Average 2011-15
    - Correct 2013/14 and asymptotic fit
  - Results are very similar

What Next?

- Questions/Feedback?
  - AUGE.software@dnvgl.com
- Revised AUG Statement by 30 April
  - Updated Table of Factors
  - Presentation 12 May 2017
- Approve AUG Statement
  - May UNCC Meeting
- Publish Final Table by 30 June 2017

Thank you

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