

Shrinkage Forum 17 September 2014 – Calorific Values

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Calorific Values – Shrinkage and Leakage Model

- The leakage model estimates the volume of leakage
 - The established leakage rates are in m³/annum
- Calorific Values are used to convert the leakage volume into an estimation of energy losses
- The annual leakage estimate is used for two main purposes
 - Identification of the annual emissions for UNC purposes – establishing the shrinkage quantities that GDNs are obliged to procure to replace losses
 - Identification of the annual emissions for Licence Incentive purposes – GDNs have an incentive to reduce GHG emissions in addition to an incentive to reduce shrinkage

Calorific Values – UNC Purposes

- For UNC purposes, GDNs use outturn calorific values for the year in question
- However, it was identified that there are differences between the GDNs in respect of the source data for the calculation
- National Grid and Scotia Gas Networks use the data published on the National Grid Website
- Northern Gas Networks and Wales and West Utilities use data from their Gas Quality teams – Data from HPMIS (High Pressure Metering Information System)

Calorific Values – Difference in Data Sources

- CV data published on the National Grid website originates from HPMIS.
- However, this data is collated to an LDZ level and is a daily flow-weighted CV, ‘capped’ at 1MJ/m³ above minimum source
 - This is the same CV that is used to calculate consumer gas usage
- Data taken directly from HPMIS is an uncapped daily flow-weighted average
- National Grid and Scotia Gas Networks use a time-weighted average of the capped CVs, which is consistent with shrinkage procurement on a flat daily basis.
- Wales and West Utilities and Northern Gas Networks use a flow-weighted annual average CV

Calorific Values – for Incentive Purposes

- Outturn CVs are out of the control of the GDNs
- Therefore, to avoid potential windfall gains or losses, for the purpose of incentive calculations the CVs underpinning the Shrinkage and Environmental Emissions allowances are used