Review Group 0251 – Review of the Determination of Calorific Values

Outline of analysis to be completed by National Grid NTS

Historic Analysis

Aim:
Determine the magnitude of the issue in recent history by establishing whether the current flow weighted average CV rules have consistently disadvantaged or advantaged consumers in certain areas or whether any such advantages and disadvantages on a daily basis have balanced out over time.

Method:
- Extract actual daily CVs for each DN offtake over the last 3 years.
- Extract the billed CV for each charging zone for each day over the last 3 years,
- For each charging zone, compare billed CVs against measured CVs from each offtake serving that zone over the past 3 years. Show the variation in CV of each offtake serving that zone from billed CV, positive or negative)
- Calculate an average CV variation per offtake of actual daily CV vs billable CV across the 3 years
- For those charging zones which display the largest variations, take hypothetical sizes of site (typical domestic, small I&C, large I&C, VLDMC) to work out annual materiality by consumer size.
- Record the number of CV capping instances per charging zone in the last 3 years and levels of CV shrinkage.

Forward looking analysis

Aim:
Determine whether CV variances (actual vs billed) are likely to grow based on future NTS supply scenarios. Use network modelling to determine which charging zones are at risk of CV capping.

Method:
- Model the latest NTS supply scenarios for the next [10] years against 2 daily demand levels (average summer day and average winter day).
- For each scenario, flex NTS inputs at the main NTS entry points. CVs of NTS inputs to be based on history and intelligence going forward.
- Identify the CV shrinkage volumes per charging zone under each scenario.
- Apply various gas prices to generate potential materiality.
- Show for each charging zone for each scenario the difference between offtake CV and billable CV.
- Show trends regarding whether gas consumers in different areas are likely to consistently benefit, consistently lose or whether gains and losses might balance out over time.