Approach to Spring 2009 Modelling

Supporting Document: Spring 2009 NDM Analysis - Proposed Approach. pdf

DESC 20th January 2009

Spring 2009 Modelling - Proposed Approach

- Discussion & agreement of approach to 2009 modelling for proposals to be applied to gas year 2009/10
- Full details provided in:
  - 'Spring 2009 NDM Analysis – Proposed Approach' document
- Overall similar to 2008 modelling approach
  - Determining Summer Reductions and Cut-Offs (see later slides)
  - Weekend and holiday effects included
  - Appropriateness of EUC bandings investigated
  - Fallback position available as with previous years
  - Model smoothing continuation - approach agreed at November '07 DESC (to be reviewed again Autumn 2009)

Spring 2009 Modelling - Proposed Approach

- No weather station changes anticipated – no impact on CWV definitions
- Band 7 & 8 consumption and/or WAR bands to be combined IF sample numbers are too low
- Band 01 modelled as a single band, 0 to 73.2 MWh (as per analysis recently presented)
- Aggregate NDM demand data used in calculation of DAFs to be based on historical demand as opposed to forecast view used in previous years
- Publication: xoserve extranet (UK Link Documentation) including supporting files

Determining Cut-Offs - Background

- Summer cut-offs applied where demand “levels off” at some point during the “warmest days” or demands associated to the maximum CWV in the model become too close to zero or negative – prevents negative allocations
- Required to ensure there are no instances of EUCs with negative ALPs
- EUCs for Bands 1 and 2 not allowed to have cut-offs (80% of NDM load)
- There are two sets of criteria adopted for applying cut-offs:
  - If CWV axis intercept of the regression line is very close to the maximum CWV for the LDZ in question. Termed as “imposed cut-off”
  - If the best fit on the data points in the CWV range up to 4 below the maximum CWV leads to more than a 20% improvement in the mean square residual error. Termed as “best-fit cut-off”

Determining Cut-Offs – Representation July'08

- 'Representation process' from NDM proposals for Gas Year 2008/09 queried application / non application of cut-offs
- Transporters did not believe there were major impacts and suggested maintaining existing approach
- Alternative Options were offered, namely:
  - Option 1) Extend no cut-off rule to all small NDM EUCs for 2009/10
    - Only 1% of NDM load would then be subject to cut-offs (all Large NDM EUCs)
    - Very likely to be problems with negative ALPs, especially in EUCs for WAR band 4
    - Need to agree practical rule to deal with potential negative ALPs
  - Option 2) Make the criteria for applying "best fit" cut off much stricter to minimise those instances and leave "imposed" cut offs in place.
- Workplan for 2009 was already full so unable to investigate the options further

Determining Cut-Offs – NDM Proposals GY 09/10

- In 08/09 NDM proposals:
  - 16 of 429 EUCs showed a change to having cut-offs representing:
    - 1.1% of Total NDM load
    - 0.016% of Total population
  - 2 of 429 EUCs showed a change to not having cut-offs representing:
    - 0.2% of Total NDM load
    - 0.003% of Total population
  - WAR Band EUCs with cut-offs necessary to ensure demands and ALPs do not take on negative values
- Consequential material impact on NDM Demand Attribution very unlikely
- Recommendation: Propose no change to the EUC modelling methodology with respect to the application of cut-offs in EUC demand models

- Overall Recommendation: To accept proposed "Spring Approach 2009" – DESC agreement ?