



NDM Proposals for 2005/06 Representation & Response

DESC 25th July 2005

Representation Received

- **Representations closed out on 15th July**
- **One representation received (on 15th July)**
- **Representation and Transporters response sent out to DESC members**
- **Party making representation has since confirmed that they are satisfied with the response to their representation**

Summary of Representation

- **Comparative analysis using published NDM model data from 2004/05 and 2005/06 NDM reports (Appendix 7).**
- **Mean daily demand computed using a mean daily CWV for a two year period using each set of model parameters.**
- **Demand for individual calendar dates is not computed.**
- **Two year period was 1st April 2002 to 31st March 2004.**
- **Comparison is not of seasonal normal demand.**
- **Comparison uses different weather variables for each year - those applicable at the time.**
- **Ensuing demand values show very large differences.**
- **An explanation was sought for this.**

Key Aspects of Response (1A)

- **Models published in Appendix 7 of each year's NDM report refer to the applicable NDM sample in that analysis - they do not refer to whole EUCs.**
- **Thus, the models relate to different sample AQ levels.**
- **This is a major cause of the observed discrepancy.**
- **Representation quotes errors of 11 to 18% in the 01B EUCs for the LDZs: SC, NO, NE, EA.**
- **AQ Changes from 2004/05 to 2005/06 in these EUC samples is: 13.1%, 16.0%, 17.2% and 11.7% respectively.**
- **Clearly the major reason for the apparent discrepancy.**

Key Aspects of Response (1B)

- **Approximate adjustment may be made for different sample AQ level by dividing each computed demand by the relevant C_1 parameter.**
- **Adjusting the computations in this way greatly reduces the reported extreme percentage differences.**
- **The accurate approach would be to assess prevailing sample AQ by substituting the SNCWV for each day in to each model.**

Key Aspects of Response (2)

- **From 2004/05 to 2005/06 all CWV definitions and the seasonal normal basis of weather (i.e. the basis for SNCWV) have changed for all LDZs.**
- **Demand values computed using old basis models and CWVs (2004/05 as published) would naturally be different from those computed using new basis models and CWVs (2005/06).**
- **New basis models (2004/05 proposals fully reworked) were presented to DESC on 26th January 2005. All 2004/05 model parameters on the new basis circulated at that time.**
- **This information can be used to make a valid comparison - on a consistent like for like basis.**
- **For NO LDZ there is also a change of weather station in 2005/06.**

Key Aspects of Response (3)

- **Model parameters in Appendix 7 of NDM report are those for the simplified additive form of the model.**
- **Does NOT include holiday effects, summer cut-offs and summer-reductions.**
- **See Appendix 3 and Appendix 4 of NDM report for more details.**
- **In any one analysis, a model with summer reductions (or with cut-offs) is derived from a slightly different data set than one without these effects.**
- **Some 2004/05 to 2005/06 differences are due to summer reduction/cut-offs being present in one year and not the other.**

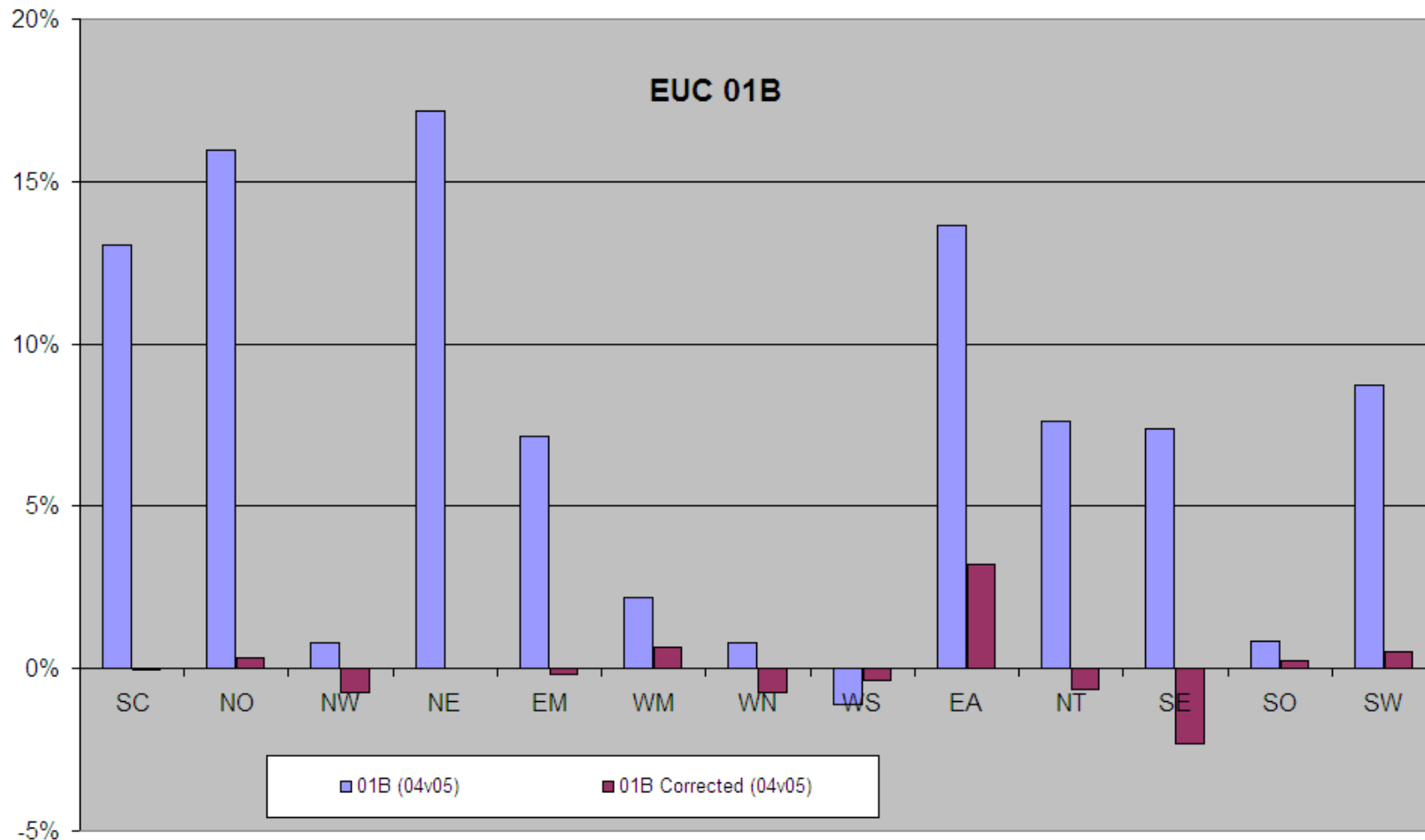
Key Aspects of Response (4)

- **Leaving aside the level of sample AQ models not consistent from one year to another,**
 - **Demand on new CWV & SNCWV basis would be different to that on old basis.**
 - **These differences say nothing about whether one or the other is more accurate.**
- **The whole focus of the two year analytical programme that led to the new weather basis was to aim to mitigate seasonal effects - future assessments of algorithm performance will provide insights in to the effectiveness of this.**

Key Aspects of Response (5)

- Amended assessment undertaken, adjusting for sample AQ level (approximately) and applying a consistent model and CWV basis.
- No instances of large differences.
- EUC 01B: 11 of 13 are within $\pm 1\%$
- Consumption band EUCs ≤ 2196 MWh pa:
25 of 52 are within $\pm 1\%$ & 52 of 53 are within $\pm 5\%$
- All EUCs: 411 of 429 are within $\pm 5\%$
- Largest positive error (8.9%, EA:E0505W04) and largest negative error (-6.1%, NW:E0506W04) due to presence of summer reductions in one year but not the other.

Key Aspects of Response (6)



Changes in EA and SE are because the models either include summer reductions or do not - going from 2004/05 to 2005/06

Principal Conclusions

The apparent discrepancies reported in the representation are because:

- The model parameters used apply to sample sizes of different AQ levels**
- The models and weather variables compared are not on the same consistent basis**
- The underlying modelling decisions are different from one year to another (e.g. summer reductions and cut-offs)**

Replication of Demand Attribution

Reworked new basis 2004/05 demand models have been applied to:

- 2003/04 gas year - reported to DESC on 23rd February.**
- 2004/05 gas year to end Feb. - circulated to DESC on 16th March.**
- February DESC meeting agreed that full gas year would be done in the autumn.**
- As normal gas year algorithm performance evaluation will assess new (2005/06) models applied retrospectively to full gas year 2004/05 .**
- Scope of NDM report does not include assessing demand attribution nor assessing retrospective performance of proposed new models.**

Timetable

- Consultation (H 1.8.4/5/6)
 - DESC meeting 25 July
- Transporters' Final proposals published (say *date X*) (H 1.9.1)

no later than 15 August
- Transporter or User application for disapproval to Ofgem (say *date Y*)

by 5 business days of *date X*
- Ofgem determination (if required)

by 5 business days of *date Y*

Proposed Work Plan 2005/6 (1)

- September 2005
 - Annual re-evaluation of model smoothing
 - Investigation of trends
 - Discussion of prospective model smoothing for 2006
 - Discussion of sample sizes

- November 2005
 - Change of weather station in WS LDZ
 - Backfilling analysis from relevant replacement station
 - Annual end of gas year performance evaluation
 - WCF/SF strand
 - Demand attribution replication for gas year 2004/5
 - Full year analysis as extension to previously reported part year analysis

Proposed Work Plan 2005/6 (2)

- December 2005
 - Annual end of gas year performance evaluation
 - RV strand
 - NDM sample strand
 - Change of weather station in WS LDZ
 - Derivation of a new CWV
 - Initial discussion of approach to Spring 2006 modelling
- January 2006
 - Agreement on overall approach to Spring 2006 analysis
 - NDM Sample reporting
- June 2006
 - Consultation on EUC definitions and demand models
 - NDM algorithm performance for April 2005 to March 2006
- July 2006
 - Final consultation and response to any representations

Proposed Meeting Dates

- 2005
 - September 19th
 - November 14th
 - December 12th

- 2006
 - January 23rd
 - June 5th
 - July 24th