



# NDM Proposals for 2005/06 Representation & Response

DESC 25<sup>th</sup> July 2005

# Representation Received

---

- **Representations closed out on 15<sup>th</sup> July**
- **One representation received (on 15<sup>th</sup> 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 1<sup>st</sup> April 2002 to 31<sup>st</sup> 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 26<sup>th</sup> 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.**

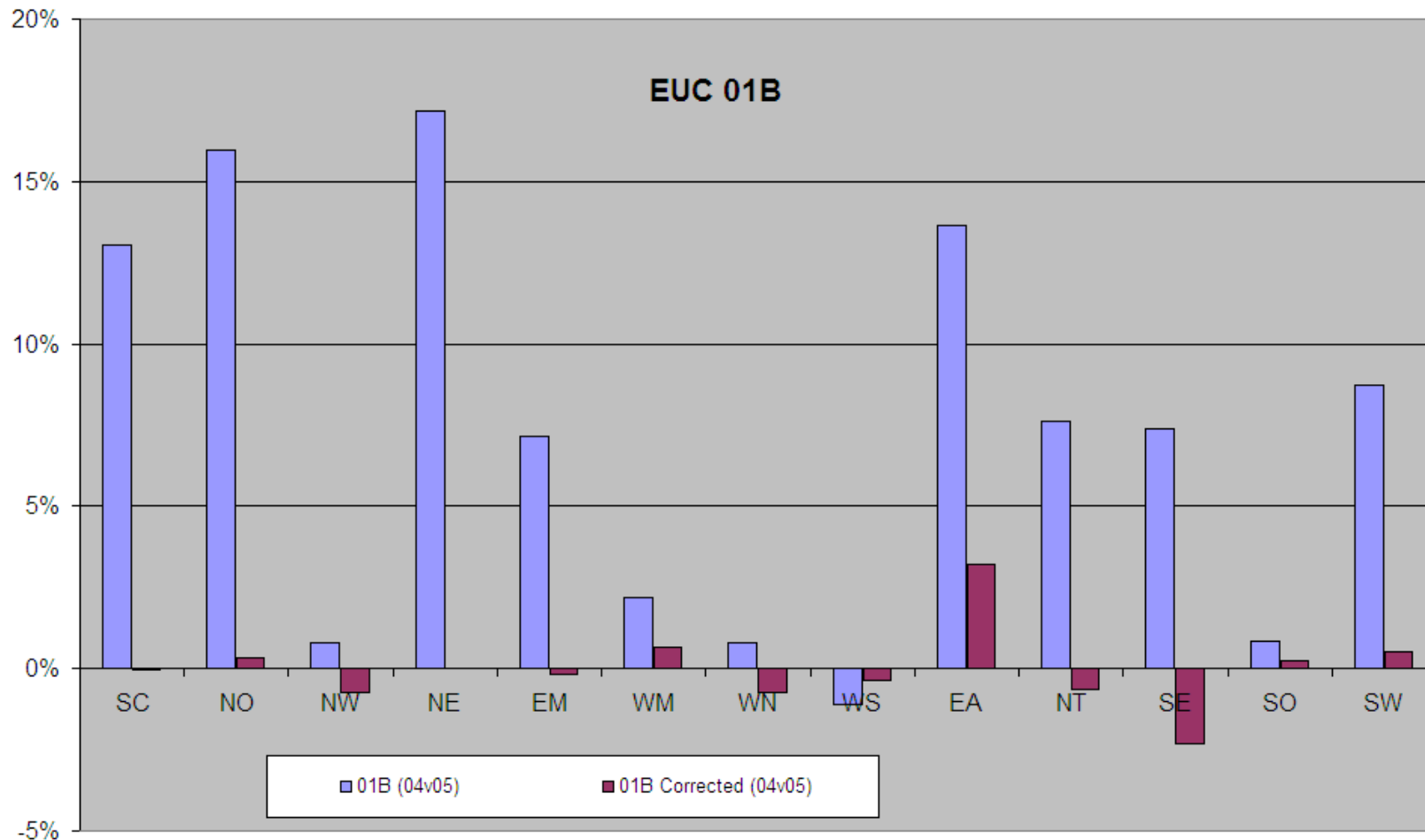
## Key Aspects of Response (4)

- **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  $\leq 2196$  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 23<sup>rd</sup> February.**
- 2004/05 gas year to end Feb. - circulated to DESC on 16<sup>th</sup> 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 19<sup>th</sup>
  - November 14<sup>th</sup>
  - December 12<sup>th</sup>
  
- 2006
  - January 23<sup>rd</sup>
  - June 5<sup>th</sup>
  - July 24<sup>th</sup>