



# Transporters' Response To Representations

NDM Profiling 2009/10

24<sup>th</sup> July 2009

# Consultation Process: Current Timetable

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- Publication of NDM Proposals by 30<sup>th</sup> June
  - Users to Submit Representations by 15<sup>th</sup> July
  - Review of Representations / Consultation as appropriate  
(DESC Meeting 25<sup>th</sup> July to consider representations) 16<sup>th</sup> July to 15<sup>th</sup> August
  - Final Proposals Submitted (date x) by 15<sup>th</sup> August
  - Transporter or User Application for Disapproval to Ofgem (date y) by 5 business days of date x
  - Ofgem Determination (if required) by 5 business days of date y
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- System users were invited to submit representations on the NDM proposals
  - 1 Representation received – Shipper E.ON
  - Points / issues raised considered in turn

# Transporters' Response: E.On Representation Topics

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- Seasonal Normal Demand
- Holiday effects
- Day of week relationship
- WSENS shape changes
- Seasonal Normal Weather review
- Demand Estimation Consultation review

# Transporters' Response: Seasonal Normal Demand (1)

- **REPRESENTATION:**

Improvement recognised in Scaling Factor (SF) for Gas Year 2008/09 as a result of UNC Modification 204. Encouraged that Daily Adjustment Factor (DAF) for Gas Year 2009/10 is to be based on historical model. Feel some SF variation in GY 08/09 for certain LDZs was due to “mismatch in ALP and DAF derivation”.

“Can Transporters reassure industry this issue is unlikely to be evident in 2009/10”

- **Background**

- DAF provides view of EUC weather sensitivity compared with LDZ's
- DAF Formula: 
$$\frac{\text{WSENS} / \text{SND (for EUC)}}{\text{WSENS} / \text{SND (for agg. NDM in LDZ)}}$$
- Numerator values (EUC) derived from NDM sample
- Denominator values (LDZ) sourced from 'historical model' \*
- \* In past years values of SND and WSENS for denominator have come from models of NDM demand in each LDZ forecast for the future year in question.
- Following agreement at Spring '09 approach meeting denominator values to be based on 'historical model' sourced from 3 years Gemini data

# Transporters' Response: Seasonal Normal Demand (2)

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## ■ Transporters' View:

- As stated in representation Scaling Factors in 08/09 (especially in winter) are much better for all LDZs during gas year 08/09 because of MOD204
- There still exists potential for volatility due to day to day changes in EUC AQs, unexpectedly high or low actual NDM demand levels (whether real or due to LDZ or DM measurement error) and features of EUC demand models (such as cut-offs)
  - [Appendix 13 of NDM proposals provides commentary on SF / WCF performance upto and including May 31st 2009](#)
- Difficult to assess any “mismatch” without replicating demand attribution for 2008/09 with an alternative set of NDM demand models
- To extent that historical models are used for both EUC and aggregate NDM demand modelling, and modelling approaches are both similar, there is a more consistent underlying basis to DAFs proposed for 2009/10
- However, still aspects of DE which cannot be changed meaning it is not possible to categorically state any so called “mismatch” effects will not apply to gas year 2009/10

# Transporters' Response: Seasonal Normal Demand (3)

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- **REPRESENTATION continued:**

”We note that SND has decreased by a significant degree. Can it be confirmed whether this is due to the level of AQ reduction across the industry and when during the summer Transporters expect to produce the definitive view of SND?”

- **Transporters' View:**

- Published WSENS and SND values applicable only to compute DAFs for Gas Year 2009/10 – no more significance
- Values derived from demand modelling process (equivalent to EUC demand modelling) based on historical agg. NDM demand data from Gemini
- Important feature is the change in WSENS/SND ratio – this causes change to DAFs
- ‘Pseudo SND’ values for Gas Year 2009/10 used in calculation of Weather Correction Factor to be published in mid September

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# Transporters' Response: Holiday Effects (1)

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- **REPRESENTATION:**

”Looking at the profiles there appears to be no reduction in demand for Easter in EA, SE, SO and SW LDZs”

“WN is showing an unusually long 2 week Easter impact”

“In addition SC, SO and WN show no evidence of a late May bank holiday reduction and WN is also missing an August bank holiday reduction”

- **Background:**

- The SND and WSENS terms provided with the NDM proposals for 2009 are NOT values applicable to the individual days of the gas year 2009/10 in the same sense as previously when forecast models for the target year have been used
- Instead these SND and WSENS values are merely the values that came out of the aforementioned historical demand modelling and were used to compute the DAFs on each of the days of 2009/10
- Approach to deriving historical model for Gas Year 2009/10 explained on next slide....

# Transporters' Response: Holiday Effects (2)

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- **Background cont:**
  
- Approach used for the 2009 NDM Proposals for DAF denominator :
  - Three gas years of historical aggregate NDM demand data were modelled
  - An averaged demand model was determined from this historical data
  - The holiday codes applied were equivalent to those used in EUC demand modelling.
  - Historical modelling of aggregate NDM demand treated holidays and weekend days separately
  - The holiday and weekend factors came out of the modelling (EUC and NDM)
  - Holiday codes for these various cases are stated in the file WKHOLDEF09\_v2 (provided with NDM proposals) – HXNR model
  - There are 18 different holiday and weekend day codes
  - When a holiday code applies over a weekend the individual days comprising the weekend are not necessarily additionally differentiated (there is usually insufficient data to derive statistically significant and different values of weekend factors within individual holiday codes)
  - All holiday factors took on values as expressed by the results of modelling the aforementioned historical aggregate NDM data
  - The historical aggregate NDM demand model was then applied to the pattern of days of the target gas year (2009/10)

## Transporters' Response: Holiday Effects (3)

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### ■ Transporters' View:

- Observations regarding various holiday demand impacts are correct
- The approach taken is similar to EUC demand modelling: the **data alone** reflects the values of the holiday factors that ensue
- Results are the outcome from the historical modelling process
- The historical demand modelling process came out with Easter multiplicative holiday factors statistically not different from one for EA, SO and SW LDZs, while the holiday factor was very slightly lower than one for SE LDZ.
- Similarly for late May and August bank holidays the historical demand modelling process came out with these particular multiplicative holiday factors not statistically different from one
- No judgemental element has been applied to override the modelling outputs and no forecast element has been applied
- Note Easter holiday period impact in WN LDZ is restricted to the 10 days 31/03/2010 to 09/04/2010. This is the case in all LDZs

## Transporters' Response: Holiday Effects (4)

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- **REPRESENTATION continued:**

“Perhaps Transporters can explain why these reductions are not present and why no LDZ shows evidence of the Christmas 28th December bank holiday that we would expect to be present in the profiles?”

- **Transporters' View:**

- The holiday code applied to 28th December is no different from the holiday codes applicable to a number of other days in the Christmas and New Year period (for example see file WKHOLDEF09\_v2)
- Thus, the modelling process comes out with a common holiday factor for all such days (the demand reduction is in the range 3 to 10% over the 13 LDZs)
- Within this period of days with a common holiday factor, there is no means of differentiating days with specific characteristics
- There is insufficient data to determine a difference using three years of historical data between a 28th December that is a bank holiday and a 28th December that is not a bank holiday
- Thus, there is no specific (different) effect observed on 28th December

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# Transporters' Response: Day of Week Relationship (1)

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- **REPRESENTATION:**

Concern regarding relationship between Saturday and Sunday demand changes across some of the LDZs. “A number of LDZ have changes through various months of the year where Saturdays are higher than Sunday for some months and the relationship then reverses in other months”. May bank holiday provided as an example.

Explanation required on “significant reduction in weekday to weekend sensitivity” in 3 LDZs

- **Background:**

- Pattern of Saturday and Sunday WSENS and SND values from week to week are dependent on Sat / Sun factors **and** SNCWV profile through the year
- SNCWV curve decreases from October to January and begins to increase thereafter peaking in the summer before falling again
- If Saturday and Sunday factors are the same then ‘controlling effect’ on weekends is SNCWV profile
  - $SND \text{ on day} = \text{day factor} * (\text{model constant} + \text{model slope} * SNCWV \text{ for that day})$

# Transporters' Response: Day of Week Relationship (2)

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## ■ Transporters' View:

- The reason for the observed effect highlighted on representation is the weekend just after the first May bank holiday is within the holiday period applied around this bank holiday
  - Two holiday codes apply to the bank holiday weekend itself and to the days up to and including the following weekend
- Remaining instances of change in Sat / Sun relationship in some LDZs during the year is where the Sat / Sun factors are the same or nearly the same
- The SNCWV curve will then become the controlling effect
- Transporters cannot reproduce numbers on representation relating to reduction in weekday to weekend sensitivities
  - For example, the average non-holiday change in weather sensitivity for NT LDZ is UP (not down) from a 3.6% reduction in 2008/09 to a 5.6% reduction in 2009/10 on Saturdays (and from 3.7% to 4.7% on Sundays).
- Change has occurred because approaches to 2008/09 and 2009/10 are quite different
- WSENS is proportional to SND - different SNDs also mean different WSENS values
- The key comparator for the ensuing DAFs is the ratio of WSENS to SND
  - Weekly pattern of days is similar

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# Transporters' Response: WSENS shape changes (1)

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- **REPRESENTATION:**

”There are some notable differences in shape to the WSENS values from those seen last year”  
Example graph of EA WSENS illustrated.

“We would also appreciate some detail on how much of the change in ALP shape, notable smoothing across shoulder months is evident this year, is due to full implementation of Mod 204 and how much is due to changes in the underlying data”

- **Transporters' View:**

- Transporters cannot reproduce numbers / WSENS ‘shape’ shown in representation – believe incorrect comparison may have been done
- WSENS values for EA from 2008/09 applied to GY 2009/10 compare favourably with WSENS values for 2009/10, however...
- Key comparator for the ensuing DAFs is the ratio of WSENS / SND
  - For EA ratio shows pattern of days is similar
- ALP is entirely dependent on each applicable smoothed EUC demand model
- ALP is not dependent on the aggregate NDM demand model - Mod 204 had no impact
- The ALP profiles proposed for 2009/10 differ from those for 2008/09 only on account of the differences in the ensuing smoothed EUC models used in each set of proposals

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# Transporters' Response: Seasonal Normal Weather (1)

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- **REPRESENTATION:**

“While the change to the definition of seasonal normal will not impact this latest set of proposals we were pleased with the consensus across the industry towards using EP2 data. The proposal has highlighted a disconnect in responsibility (Transporters) and impact (Shippers) that we would like to see xoserve manage better over the next year towards implementation.

- **Transporters' View:**

- As stated Seasonal Normal weather review process not part of 09/10 NDM proposals
- xoserve recognise lessons can be learnt on how to co-ordinate end to end process during the next review
  - First time review has been carried out under current industry regime - i.e. xoserve, 5 individual Transporters and Shippers
  - Introduction of forecast data element for the first time – consultation process necessary
- Transporters would welcome feedback on the approach for how Seasonal Normal reviews can be determined in the future – preference for this to be done once current review is completed
- xoserve are confident that the remainder of the 2010 review up to and including implementation of the new values will be managed to the industries expectations
  - Additional September meeting to be arranged to accommodate this

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# Transporters' Response: Demand Estimation Review (1)

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- **REPRESENTATION:**

“We would appreciate a Transporter response on the idea of a fuller review in this area over shared responsibility across the industry. Concerns over responsibility for definition of an appropriate seasonal normal weather and over timing allowed for representations could be assessed with a view to defining a more appropriate schedule and level of responsibility”

- **Transporters' View:**

- Comment relates to the broader issue of how to deliver UNC NDM demand estimation in the future. Address separately from this consultation on NDM proposals for 2009/10
- Transporters support any review of suggestions / improvements which are put forward to benefit consultation process for whole industry. Feedback should be via DESC.
- There are defined activities in Demand Estimation process which mean there is little 'slack' in annual cycle, however Transporters happy to work with Shippers at DESC to discuss further
- Benefits and need for change have to be justifiable - any changes to consultation process likely to require UNC Modifications

# Transporters' View of Representations – Conclusions

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- **Transporters' View:**
  - Transporters believe the historical model used in NDM proposals for 09/10 satisfies DESC requirements of moving away from use of forecast data in any of the NDM parameters, re-enforces consistency in the process and is reflective of industry wide consultation at DESC
  - Transporters continue to welcome comment and input from the industry on the proposals and have attempted to identify and clarify points raised in the representation
  - Transporters believe NDM proposals for 2009/10 published 29<sup>th</sup> June 09 are fit for purpose and should be adopted
    - Following publication and notification of final proposals
    - Consultation process allows User / Transporter request for Ofgem disallowal
    - Disallowal results in use of 'fallback' parameters