Transporters' Response to Representations
NDM Profiling and Capacity Estimation Algorithms for 2011/12

29th July 2011

Consultation Process: Current Timetable

- **Publication of NDM Proposals**   **by 30th June**

- **Users to Submit Representations**   **by 15th July**

- Review of Representations / Consultation as appropriate   16th July to
  (DESC Meeting 29th July to consider representations)   15th August

- Final Proposals Submitted (date x)   by 15thAugust

- Transporter or User Application for Disapproval to   by 5 business
  Ofgem (date y)   days of date x

- Ofgem Determination (if required)   by 5 business
                                                                   days of date y

- System users were invited to submit representations on the NDM proposals

  - **1 Representation received – Shipper E.ON**
  - **Points / issues raised considered in turn**
  - **Detailed response provided in document on JO website**

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Transporters Response: DAF levels

- **Representation:**
  "The relative levels of DAF values through the week (i.e. the 'shape') are inconsistent with previous years, and suggest an error in derivation…This inconsistency is replicated across all EUCs that we have examined"

- **Transporters' View:**

  - The difference in the shape of the DAF profiles is due to a change in this year's aggregate NDM model weekend effects.
  - Upon investigation it was discovered that there was an error in the programs that produced these models. Programs had been changed recently for various reasons including the change to holiday codes.
  - The impact of the error affected the results for Friday, Saturday and Sunday.
  - Transporters are grateful to E.ON for bringing this to our attention and as a result a revised set of aggregate NDM models, DAFs and large NDM load factors were produced and published on 19th July.
  - Note: EUC demand models were not impacted by this error.

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Transporters Response: ALP values in Christmas period (1 of 7)

- **Representation:**

  "The relative levels of ALP values in the Christmas Holiday are not consistent with what would be expected from the sequence of Bank Holidays in that period. Christmas Day in Lieu (Monday 26th December) and Boxing Day in Lieu (Tuesday 27th December) currently have values higher than the following weekdays.

  Additionally, the New Year period appears questionable, with no reduction for New Years' Day (a Sunday) relative to the previous day, and a rise into Monday 2nd January 2012, which would be expected to be a Bank Holiday in Lieu, and consequently reduced relative to 28th-30th December.

  We would like to seek confirmation that the Holiday Factor values, in particular with regard to 26th December 2011, 27th December 2011, 1st January 2012 and 2nd January 2012, are robust and as expected."

- **Transporters' View:**

  - The holiday periods and holiday codes used to derive the 2011/12 profiles were those agreed at the 10th November 2010 DESC meeting (option P5V1, with the proviso that 25th December should always be considered separately).

  - A detailed response, including reminder of holiday code rules and how they relate to 2011/12 and replication of the holiday factor calculations is provided in the response document accompanying this presentation.

  - In summary
    - Holiday Code 2 relates to 26th and 27th Dec 2011 and 2nd and 3rd Jan 2012
   - Holiday Code 3 relates to 24th Dec and 28th Dec 2011 to 1st Jan 2012

Transporters Response: ALP values in Christmas period (2 of 7)

- **Transporters' View cont.**

    - For both EUC models given as an example in the representation the value of the smoothed model holiday factor for Code 2 is higher (i.e. shows less demand reduction) than holiday code 3.

    - In fact, for 396 (out of 416) non '01B' EUCs the holiday factor for Code 2 is higher than Code 3. This was also reflected in the aggregate NDM demand model as well (except for SC).

    - Although this outcome may not have been expected the Transporters can confirm that the values of the smoothed model holiday factors have been calculated correctly (as demonstrated in supporting document).

    - The holiday factors reflect the pattern of demand observed over the Christmas / New year holiday periods in recent years in the NDM sample (and in LDZ aggregate NDM demand).......

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Transporters Response: ALP values in Christmas period (3 of 7)

FIGURE D. Actual Demand As % Of Monday to Thursday Fitted Demand for NE:E1102B for Christmas / New Year Period 2010/11 v Retro ALP for 2010/11 from 3 year smoothed model
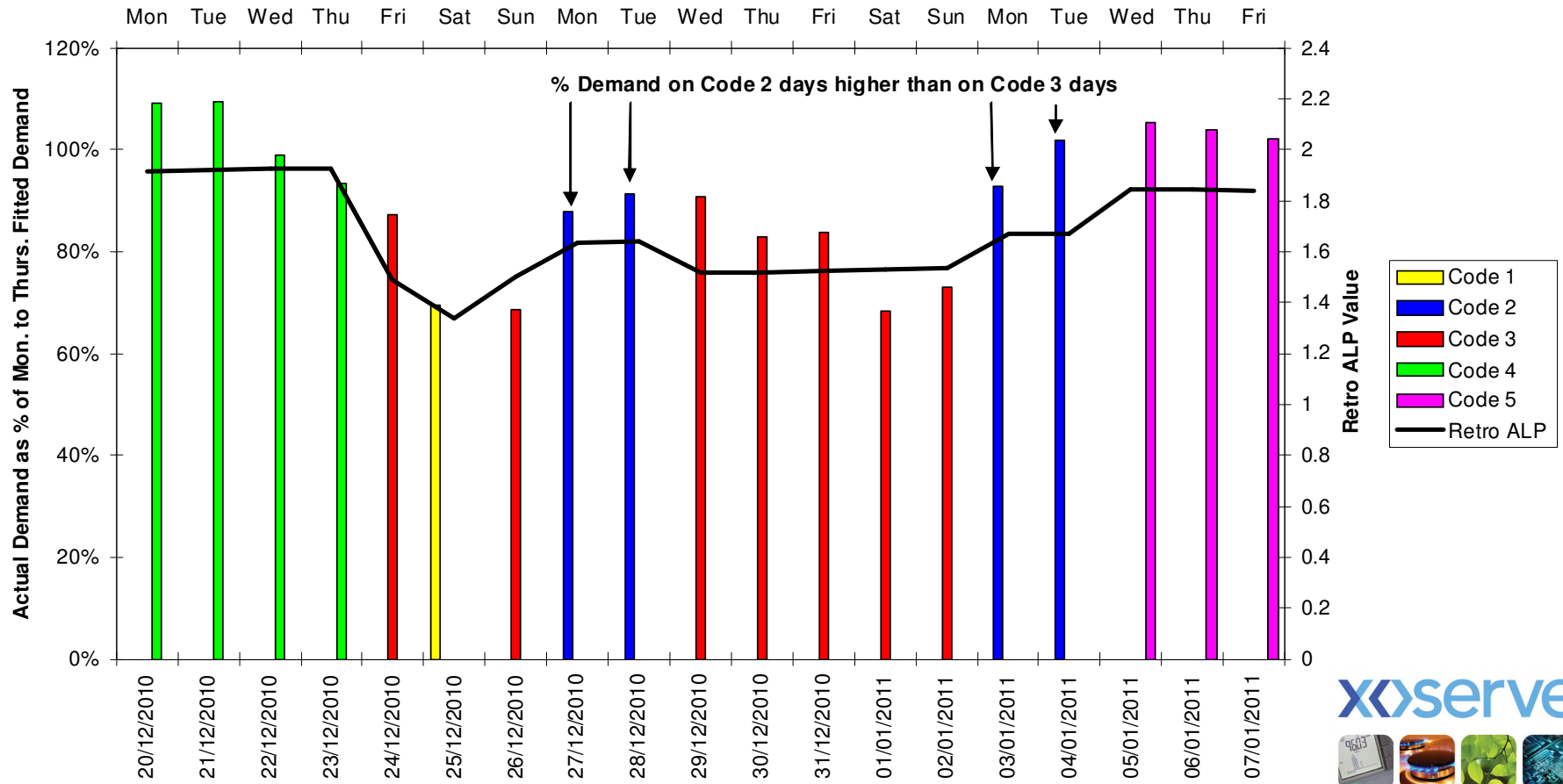
Transporters Response: ALP values in Christmas period (4 of 7)

FIGURE E. Actual Demand As % Of Monday to Thursday Fitted Demand for SE:E1104W03 for Christmas / New Year Period 2010/11 v Retro ALP for 2010/11 from 3 year smoothed model
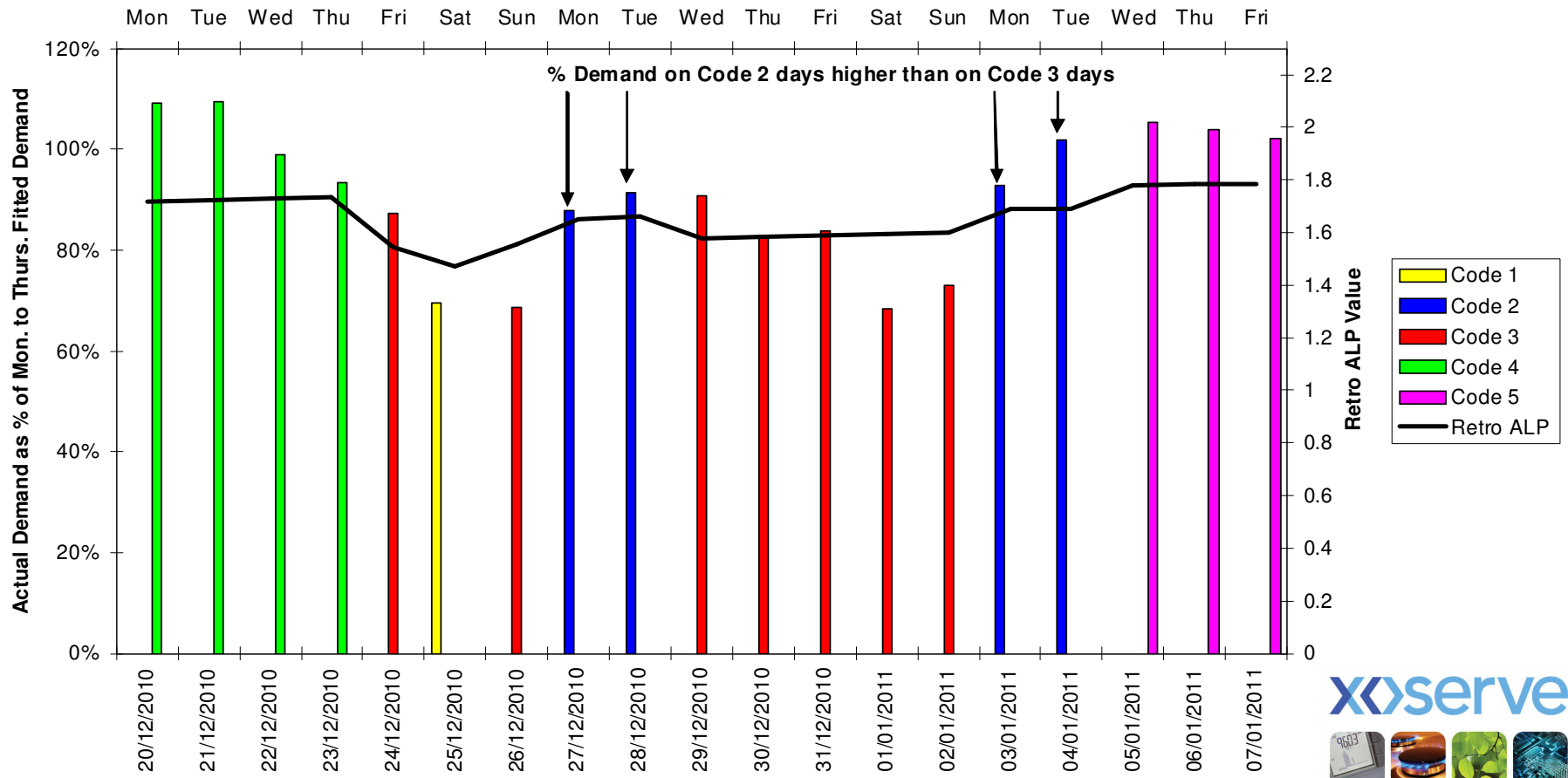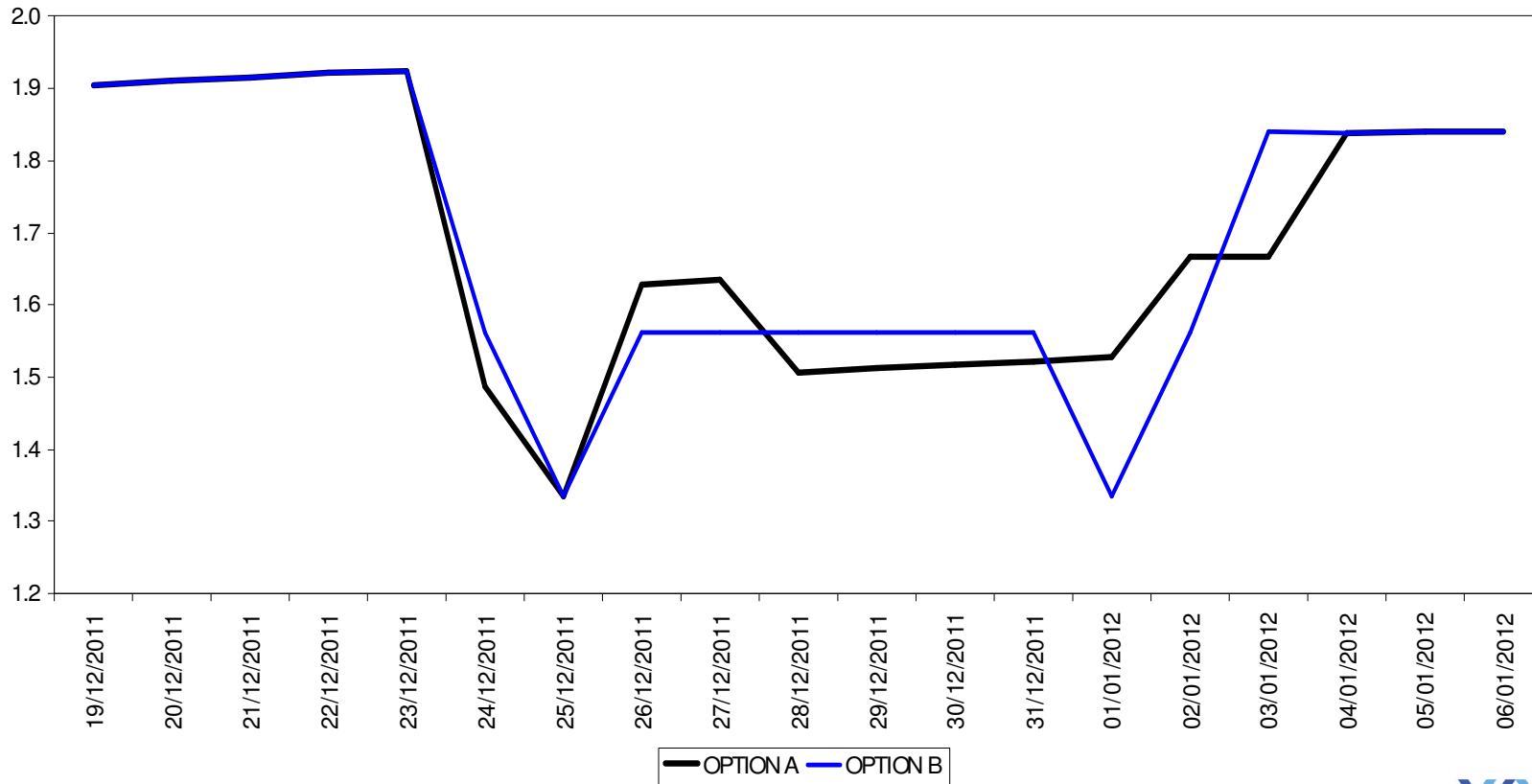
Transporters Response: ALP values in Christmas period (5 of 7)

- **Transporters' View cont.**
  - Transporters view is to <u>not</u> amend the ALP profiles as a result of this representation and the subsequent analysis presented.

  - However, if DESC believe these are not acceptable then an alternative option could be implemented if DESC prefer. Details of "Option B" are provided below:

    - The EUC definitions, EUC demand models and aggregate NDM demand models remain the same as the initial proposals.
    - The ALP and DAF values for the domestic ("01B") EUCs also remain the same as the initial proposals.
    - The EUC load factors remain the same as the initial proposals.
    - However the ALP and DAF values for each non-domestic (i.e. non "01B") EUC are adjusted as follows

      - the ALP and DAF values for Sunday January 1st 2012 are set to the same values as those for Sunday December 25th 2011.

      - the ALP and DAF values for Tuesday January 3rd 2012 are set to the same as those for Wednesday January 4th 2012.

      - the ALP and DAF values for the December 24th, 26th, 27th, 28th, 29th, 30th, 31st 2011 and 2nd January 2012 are set to the average of the initial proposals values over these dates.

      - Following the adjustments described above, the ALP values for all days in the period from Saturday December 24th 2011 to Monday January 3rd 2012 are scaled (by a small amount) so that sum of the ALPs over the period from December 24th 2011 to January 3rd 2012 remains the same as in the initial proposals (and the sum of the ALPs over the gas year remains at 366).

Transporters Response: ALP values in Christmas period (6 of 7)

FIGURE F. ALP values for NE:E1102B for Christmas / New Holiday Period 2011/12, OPTION A (initial proposals) v OPTION B (amended ALPs from 24/12/2011 to 03/01/2012)

Transporters Response: ALP values in Christmas period (7 of 7)

FIGURE G. ALP values for SE:E1104W03 for Christmas / New Holiday Period 2011/12, OPTION A (initial proposals) v OPTION B (amended ALPs from 24/12/2011 to 03/01/2012)
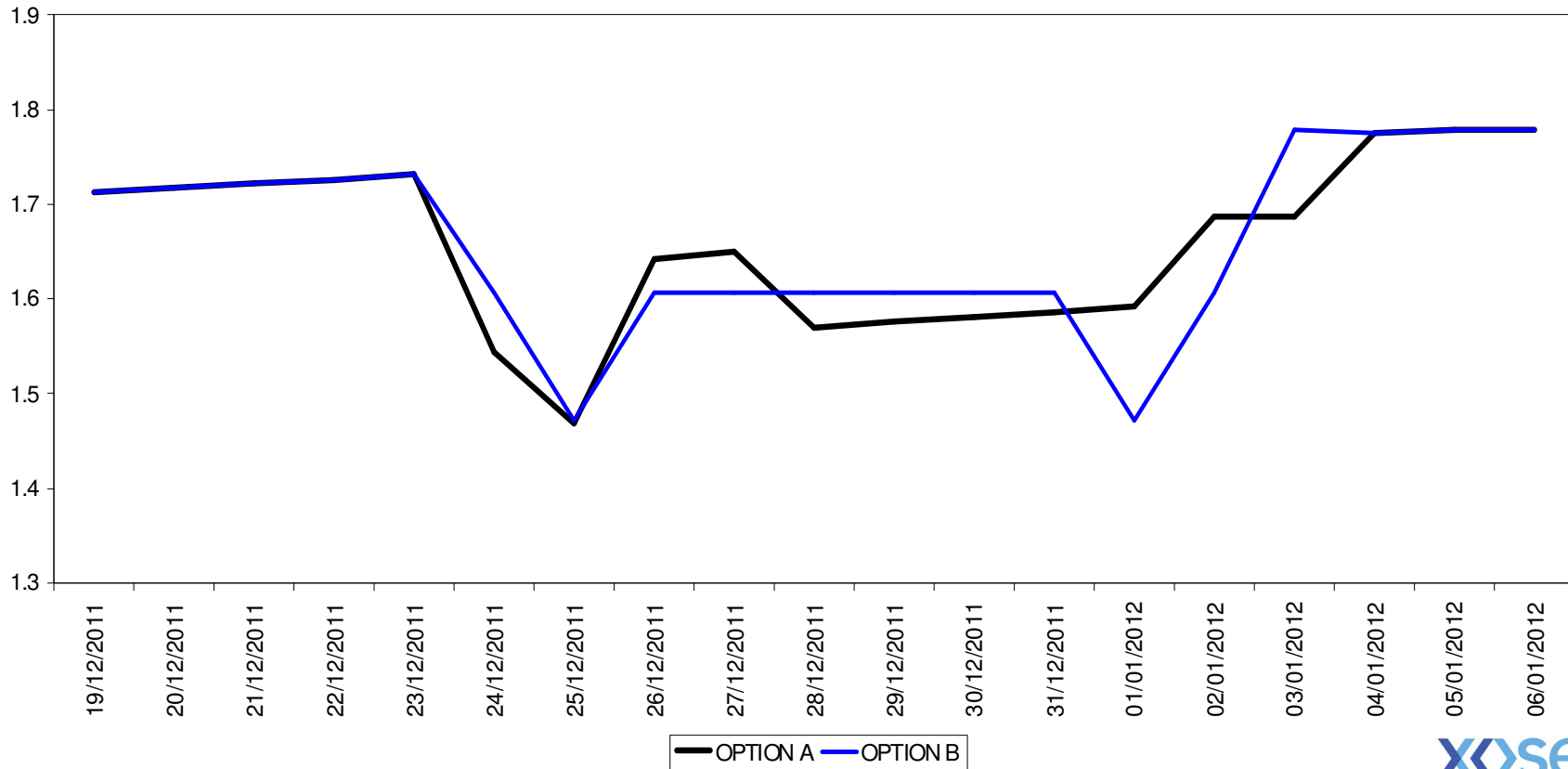
Transporters Response: Seasonal Normal

- **Representation:**
  "We would reiterate our concern that the Transporters appear reluctant to undertake the required updates to the seasonal normal analysis… We would not be happy to see this normal used for a full 5 years before a full review and would repeat our request from last year to urge the Transporters to ensure that work takes place to update the values within a two year maximum period".

- **Transporters' View:**

  - Although the seasonal normal basis falls outside the scope of this consultation on the NDM proposals for 2011/12 the Transporters have stated at DESC previously that we would be prepared to update the SN basis within the 5 year timeframe if and when an agreed industry methodology becomes available.

  - It is possible such a methodology may arise as an outcome from MOD 330

Transporters Response: WAR Bands (1 of 2)

- **Representation:**
"The WAR Bands have shifted considerably again this year as a direct result of the cold weather experienced over the winter. Last year we raised the potential of using smoothing to minimise impacts from single extreme years as applied to other areas…. Potentially we would like Transporters to consider whether we should weather correct WAR bands to minimise unnecessary movement".

- **Transporters' View:**

    – The WAR band limits proposed for 2011/12 are in fact similar to those in the current gas year as the weather experienced overall in winter 2010/11 was similar to that experienced in the previous winter.

    – However, the WAR band limits for 2010/11 and 2011/12 are quite different from those applying to gas years prior to 2010/11.

    – Transporters acknowledge that the WAR values are not weather corrected and hence are affected by the December to March weather experienced.

Transporters Response: WAR Bands (2 of 2)

Transporters' View:

- EUC WAR band limits need to be based on the most recent years sample WAR values because the WAR values on the live system are computed using this most recent winter's consumption (which is not weather corrected).

- The WAR band limits are chosen to aim for a 20%:30%:30%:20% split of sample numbers on a national basis. This is an attempt to ensure that supply points of similar weather sensitivity (and load factor) fall into the same WAR band EUCs from year to year. If smoothed WAR band limits were applied, this would no longer hold.

- Weather correcting the WAR values may be an improved solution but given that Project Nexus requirements are currently being discussed, any short-term benefits on the current system may not be realised.

- Ultimately, despite the fluctuations in WAR band limits the supply points would largely still be assigned to the same WAR band.

Transporters Response: Splitting EUC Band 4

- **Representation:**
  "We would also like to raise the issue we made at the Technical Forum that there appears to be sufficient evidence to consider splitting EUC band 4 and would question why analysis takes place if the results are not acted upon".

- **Transporters' View:**

  - Whilst the most recent two years of ILF analysis suggest there may be some merit to investigating the splitting of the band further, the analysis across all 3 years does not support the split.

  - In addition the RMSE analysis suggested that splitting the band would worsen the 'goodness of fit'.

  - The above can be viewed in slides 35 to 37 in the June Technical Forum presentation and the slides on Action DETF0603 (published after the June Technical Forum meeting).

  - Therefore, in the opinion of the Transporters there was insufficient evidence to support the split of EUC Band 4 (at 1465 MWh pa).

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Transporters Response: Extreme Weather Days

- **Representation:**

  "Where extreme weather days are impacted by other issues to weather – as per the snowy days in January – that are obvious enough to merit mention on the presentation we would question whether they should be excluded from the analysis on the basis we are mapping a temperature to demand relationship".

- **Transporters' View:**

  - Transporters do not agree that the data points should be removed from the models as they are not data errors. We believe the models should include these data points to capture the average impact of such events.

  - It is likely 'snow events' will occur in the future and the models should be reflective of the range of possible outcomes.

  - If the snowy days had been removed from the models the impact on the smoothed models would have been immaterial. Slides published in response to Action DETF0604 confirm this.

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Transporters Response: Conclusions

- **<u>Transporters' Overall View:</u>**

  - Today's presentation has summarised the Transporters' response to E.ON's representation

  - The full response to the representation was published on JO website on 27th July and addresses each point in detail - Document Name: 'Transporters Response 2011 Representation.pdf'

  - Transporters appreciate the early engagement from E.ON relating to the DAF profiles allowing Transporters time to identify and correct the error and republish the results (albeit not before reps closed out).

  - Based on the other points raised in the representation Transporters do not believe there is sufficient reason to change the draft NDM proposals for 2011/12 – accepting that DESC may decide to adopt 'Option B'.

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