



Approach to Spring 2016 Modelling

Supporting Document: [Approach_to_Spring2016](#)

DESC – 16th February 2016

- The Spring Approach document describes the methodology which is to be followed when completing the modelling process for the coming year
- Full details of the approach to be used for proposals to be applied to gas year 2016/17 can be found in the 'Approach_to_Spring2016' document.
- The document includes a summary of all key decision / interaction points with the TWG and DESC and the likely dates they will occur
- The process of finalising the document includes a 'TWG review' phase followed by a request for DESC approval

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- Spring Approach 2016 is required ultimately to deliver a set of derived factors for use from Gas Year 2016/17
- On 1st October 2016 the NDM Algorithm formula, which DESC are responsible for providing factors for, will change:
 - Scaling Factor (SF) will no longer be needed
 - Weather Correction Factor (WCF) will be based on weather variables, hence no longer requirement to create a set of pseudo SNDs
 - Daily Adjustment Factor (DAF) will no longer need agg. NDM output

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Demand Estimation Changes

- Last Spring there were significant Demand Estimation changes in terms of the weather data used i.e. a new weather data series, a new weather station for NW and WN LDZs, a new set of CWV parameters and a new seasonal normal basis
- This year the changes are limited to:
 - Use of Third Party (i.e. Shipper) supplied sample data (where possible)
 - Changes to the Large NDM Load Factor calculation
 - Updates to the NDM Report format and associated files

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- There was general support from TWG at the Nov'15 meeting for Spring Approach 2016 pending the publication of the more detailed document
- In January the first draft of the Spring Approach document was published allowing a period for TWG to review and feedback any comments
- During the review period one response was received from the E.On representative which included some queries
- Following these comments the document was updated and reissued for review. It has subsequently been approved for recommendation to DESC
- DESC will be asked at the end of this meeting to provide its approval of the document

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Summary of Spring Approach 2016 - principles

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Modelling Approach 1

- Demand Data:

- This year's new modelling dataset will be a 12 month validation period - 1st April 2015 to 31st March 2016, which includes a full Easter period.

Change: Inclusion of Third party (i.e. Shipper) supplied sample data, subject to Xoserve receiving it in the required format and it passing the standard validation criteria

- The historical LDZ aggregations plus the additional ones created in Spring 2014 will ensure several combinations are available when individual LDZ analysis not possible
- Model Re-runs will be performed using approved datasets from 2013/14 and 2014/15. This is required for the model smoothing process

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- Weather Data:

- Weather data to be used in this year's analysis will mainly be based on the output derived from the Weather Station Substitution Methodology (WSSM) project (upto 30th Sept 2012). UK Link data thereafter
- The EUC and agg. NDM demand modelling will use the CWVs and SNCWVs based on the parameters and seasonal normal basis effective from 1st October '15

- Modelling Principles:

- Band 01 modelled as a single band - 0 to 73.2 MWh with Domestic only supply points
- Band 7 & 8 consumption and WAR bands to be merged for modelling purposes only as per DESC decision in Spring 2014

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- Modelling Principles continued:

- Holiday code rules will be the same as used in Spring '15, which for the Christmas and New Year holiday period will be those agreed by DESC in November 2011
- Warm weather analysis in order to identify those models which exhibit 'Summer Reductions' and or 'Cut-Offs'
- Analysis performed to assess if 'Weekend and/or Holiday effects' are necessary
- 3 year model smoothing to continue along with existing weightings for each individual year (33:33:34)

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- Derived Factors (ALP, DAF, LF):

- The Daily Adjustment Factors (DAF) for Gas Year 2016/17 will no longer require the computations from an agg. NDM demand model
 - During Spring Analysis, DAFs will also be calculated under the current methodology to aid comparison to 2015/16, as well as provide a contingency in the event of any delays to UK Link implementation

- The formula for the Load Factor (LF) remains unchanged for Small NDM EUCs

Change: The Load Factor for Large NDM EUCs shall now be calculated using the same methodology as Small NDM i.e. simulation

- For the avoidance of doubt the definition of the Annual Load Profile (ALP) remains unchanged

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Fallback Arrangements

- Fallback Position:

- In the event the NDM proposals derived from the Spring 2016 analysis are rejected by DESC, the models from Spring 2015 will be used (UNC Section H) – referred to as ‘fallback’ proposals
- In this scenario the derived factors created for 2016/17 would be available using both existing rules and the rules applicable post the implementation of UNC Modification 432

Following feedback from TWG, this has been made clearer in the Spring Approach document

- The fallback Load Factors (LF) from Gas Year 2015/16 will effectively roll forward to Gas Year 2016/17 meaning the Large NDM LF’s will not be based on the new methodology

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Reporting and Publication

- Reporting output:

- An NDM Report summarising the process followed, will be produced

Change: NDM report and accompanying files will be updated to make it easier to update and for the user to utilise the data (see Nov'15 TWG mtg)

- Parameters for all smoothed models will be published in an Appendix to the 2016 NDM Report. All other model parameters will be provided in electronic form
- The performance evaluation summary (Appendix 13) will reflect the review of algorithm performance (NDM sample analysis only) for Gas Year 2014/15
- The location of all supporting documents and files will be on Xoserve's secure Sharepoint site (UK Link Documentation):
 - 18.NDM Profiling and Capacity Estimation Algorithms / 2016-17 Gas Year

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Interaction and Timetable

- Spring 2016 will be the 5th modelling cycle with the DESC / TWG collaborative approach to decision making and transparency
- As such please review decision / interactions timetable (Appendix 2 of Spring Approach document) which provides summary of the anticipated DESC / TWG involvement during the modelling cycle
- To ensure that the correspondence during the Spring Analysis period (April to July) between Xoserve and the TWG remains productive, please ensure the TWG representative within your organisation (as displayed on the master list on the Joint Office website) is still the most appropriate contact

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