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New Seasonal Normal Basis Implementation Update

DESC – 11th February 2015

Background

- The Seasonal Normal Composite Weather Variable (SNCWV) is a parameter used by the gas industry in key calculations where demand is required to be expressed assuming 'seasonal normal weather conditions'
- During the past 18 months DESC has been working towards producing a revised version of the SNCWV in line with it's responsibilities
- On 17th December 2014 DESC formally approved the new SNCWVs to be used effective from 1st October 2015
- Full details of how the new SNCWV has been calculated is provided in: '[Final Approach to Seasonal Normal Basis 2015_v1.1](#)' available on the secure area of UK Link Docs (Folder 18, 2015/16 Gas Year, 6.SN 2015 data)

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Background

- In conjunction with the revision of the SNCWV there has also been a review of parameters used in calculation of the Composite Weather Variable (CWV)
- The process is designed to find the optimum set of parameters which provide the 'best fit' against aggregate NDM demand. Following a series of review sessions the revised parameters were approved by DESC on 17th Nov '14
- A further significant change made by DESC was the decision to replace the existing weather history with a new output derived from the Weather Station Substitution Methodology (WSSM)

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Implementation of revised SNCWV – AQ

- The AQ calculation uses a number of the parameters produced by the Demand Estimation process to apply an adjustment for weather correction. The commonly known term used to summarise this element of the calculation is the WAALP – Weather Adjusted Annual Load Profile
- The WAALP requires the SNCWV, Annual Load Profile (ALP) and Daily Adjustment Factor (DAF). Both the ALP and DAF represent profiles and factors that are expressed at seasonal normal conditions which mean a reliance on the SNCWV
- In addition to these parameters the CWV is also used, this reflects actual weather on the day which means the final value of the WAALP cannot be calculated until the day has actually occurred

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Implementation of revised SNCWV – AQ

- The AQs effective for 1st October 2015 are due to be calculated from March 2015 and could potentially use a pair of reads from 1st October 2011 onwards
- Xoserve's Demand Estimation team have to produce the following prior to the AQ review:
 - Revised values of daily WAALPs for each EUC from 01/10/2011 to 30/09/2014
 - Revised values of daily WAALPs for each EUC for the current gas year
 - A set of EUC ratios for use in revising NDM AQs where an AQ has not been able to be calculated
- The above is achieved by re-running the Spring 2014 analysis using the new sets of CWVs and SNCWVs. The revised smoothed models are then cast back to 01/10/2011 to generate the necessary ALPs and DAFs

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Progress to date (Q1)

- The individual years (2011/12 to 2013/14) used in the Spring 2014 modelling have been re-run using new weather (CWVs and SNCWVs)
- The 3 year model smoothing process has been re-run using new weather
- Currently in the process of calculating the new ALPs and DAFs for Gas Years 2011/12 to 2014/15 for use in the WAALP calculation
- Work has commenced on establishing a process to manage the daily calculation of CWVs offline and the subsequent calculation of the WAALP, for the remainder of the current gas year

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Publication of revised data files

- Once all of the revised WAALPs have been calculated and updated to UK Link, Xoserve shall publish the revised parameter files on UK Link Docs in Folder 18, 2015/16 Gas Year, 6.SN 2015 data
- This will include the following:
 - ALPs and DAFs for Gas Years 2011/12 to 2014/15
 - Revised set of CWVs and EWCFs for Gas Years 2011/12 to 2014/15 (upto 'X' date). The 2014/15 files will be updated periodically with latest information
 - Revised set of smoothed modelling parameters i.e. Holiday Factors, Weekend Factors etc

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Preparation for Spring Modelling 2015 (Q1)

- Spring 2015 analysis will include 3 years of sample datasets, namely 2012/13 and 2013/14 both of which have been reviewed and approved in previous analysis years and 2014/15 which will be collected and validated in April this year
- Back runs will be re-run using new weather variables (CWV and SNCWV)
- Outside of Seasonal Normal impacts there is also work to be done on amending key modelling programs:
 - Change to DAF formula from 01/10/15 to be incorporated into relevant program (new algorithm)
 - Change to new weather history requires amendments to the programs which perform peak day demand simulations for Small NDM EUCs (WSSM dataset)

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