



DESC 26th July 2017

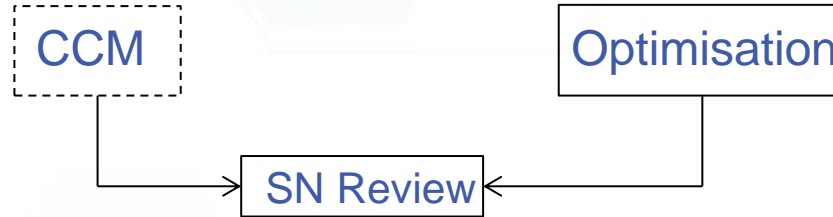
Seasonal Normal Review

Objective

- For DESC to review the possible timetable for a Seasonal Normal review and identify the data inputs.

What is Seasonal Normal Review?

- There are two strands to a Seasonal Normal review:



- Reviewing the CWV formula**

- If DESC agree to continue with the current formula, the decision on revising the existing CWV parameters is made. If DESC decide to revise the parameters – the CWV Optimisation process will take place

- Reviewing the output from the Climate Change Methodology (CCM)**

- DESC will review the analysis of the CCM datasets and make the decision on whether to continue with the existing CCM (and extend the period of data) or if a new CCM is required
- a new CCM project would need to be approved by the DSC Change Management Committee and would need a business justification

Seasonal Normal Review Background

- The Seasonal Normal Value of the Composite Weather Variable (SNCWV) is a key parameter used in various industry calculations.
- The current basis of 'Seasonal Normal' was derived during 2014 and became effective from gas year 2015/16.
- The next review of Seasonal Normal is scheduled to take place during 2019 with a planned implementation effective for gas year 2020/21. There are no fixed intervals in Network Code for a Seasonal Normal review but we traditionally do this every 5 years. UNC Section H 1.5.3 states:

'The Committee will, at appropriate frequencies determined by it, after consultation with the Uniform Network Code Committee, review and where appropriate revise the seasonal normal value of the Composite Weather Variable for an LDZ'

Seasonal Normal Review Background cont...

- To meet this obligation, a review of the current CCM is necessary to determine whether the datasets provided are representative of the actual temperatures experienced and suitable for deriving the SNCWV (current and future).
- SNCWV should represent a view of 'normal' weather in an LDZ for each gas day in CWV terms
- Seasonal Normal values are used to determine AQ levels and ensures consistency of allocation and billing across years.
- UNC states SNCWV should be based on output derived from the CCM.
- *'Final Approach to Seasonal Normal Basis 2015 v1.1'* explains the methodology and data used from the CCM outputs to calculate SNCWV (pages 4 and 5). This document can be found on the secured shared area – Folder 18 – 2015-16 Gas Year – 6.SN 2015 Data

Climate Change Methodology Background

- Mod 0330 introduced the concept of a CCM into UNC. There was a requirement for Gas Transporters to procure a methodology suitable for use in adjusting historical data so that the CWV take into account climate change trends.
- Following a tender, Xoserve appointed the Met Office to develop the methodology and associated datasets. The current CCM was delivered in June 2014
- The aim of providing the CCM was to use it to derive the required outputs in readiness for Seasonal Normal calculations for the period 2015-2025.
- The delivered outputs of the CCM project included the following:
 - 50+ years hourly historic data adjusted for estimated impacts of climate change
 - Projected hourly average temperature values for gas years 2012 to 2025
 - Predicted hourly increments – difference between the base year (2011/12) and forecast year
- There is no UNC obligation for us to update the CCM – it was a one-off obligation on the GTs under Mod 0330

CWV Optimisation Background

- UNC Section H 1.4.3 requires DESC to review and where appropriate revise the CWV formula. This review is usually done in conjunction with an update of the Seasonal Normal basis.
- Once DESC have agreed the formula for CWV and if they want to revise the parameters of the formula, the CWV Optimisation process will begin.
- The purpose of CWV optimisation is to determine if changes to certain parameters within the formula need to be changed.
- The last review was carried out in 2014 and implemented in 2015/16.
- The next review is scheduled to take place during 2019 with a planned implementation effective for gas year 2020/21

Data Available

- The datasets we have are as follows:
 - Adjusted history
 - Increments
 - Projections

The files above and their associated read me files can be located on the secured shared area – Folder 18 – Climate Change Methodology.

- The above datasets are used to calculate the SNCWV (as described in the *'Final Approach to Seasonal Normal Basis 2015'*).
- We have files for every weather station for each of the three types above containing hourly observations for the period 1st Jan 2012 to 31st December 2025.
- Equivalent daily average actual temperatures which are used to calculate the CWVs.

Suggested analysis

- Projected temperatures are hourly and will be converted to daily values as per the gas industry weightings and timings (i.e. the gas day runs from 5am to 5am)
- Gas years to be analysed:
 - 2012/13
 - 2013/14
 - 2014/15
 - 2015/16
- Suggested analysis to include:
 - comparison of projected temperature values against the daily average actual temperatures (which are used to calculate the CWVs) by weather station/LDZ – analysis by month using an average (as a daily comparison would not be a fair approach due to the CCM projections being smoothed values).
 - Are the actual temperatures within the projected (CCM) confidence limits

Possible timetable for the implementation of a new CCM

- The previous CCM project required approximately 21 months of work before implementation. The key processes and timescales are as follows:
 1. Requirements Gathering (4 months) – Industry discussions on scope of CCM
 2. Selection of Service Provider and establish Industry Stakeholder Group (5 months) – includes contract development and engagement with selected service provider
 3. Creation and validation of CCM and associated datasets (12 months)
- Output datasets for the new CCM would need to be delivered by 30th Sep 2019.
- Implementation of a new CCM and Seasonal Normal in **Oct 2020** (for gas year 2020/21) would mean Step 1 would need to commence by Dec 2017.
- Analysis and decision on the suitability of current CCM to be made by DESC/TWG meeting Nov '17.

Discussion Point

- In preparation for forthcoming Seasonal Normal Review a decision is to be made on whether a new CCM is required
 - DESC/TWG to propose the level of analysis required of the current CCM .