



Demand Estimation Sub Committee

4.0 Seasonal Normal Review 2025

19th July 2022

Objective

- To kick off discussions on the next review of the Composite Weather Variable formula and Seasonal Normal basis
- To gain some initial thoughts from DESC on what they would like to see in future updates prior to making decisions, particularly around any procurement exercise for a Climate Change Methodology

Background

- DESC are responsible for a number of obligations in Section H of UNC, amongst them are the requirements to:
 - Review the Composite Weather Variable (CWV) (H 1.4.3) and
 - Review the Seasonal Normal equivalent referred to as the SNCWV (H 1.5.3)
- Reviews of the CWV formula and Seasonal Normal basis are normally only carried out by DESC every 5 years due to the time taken to perform the review and the need for stability. This would mean the next Seasonal Normal basis is scheduled to take effect from 1st October 2025
- DESC have the option of using a 'Climate Change Methodology' (CCM) to adjust historical weather data when deriving the Seasonal Normal basis – (H 1.4.6)
- In 2012, following a tender process, DESC procured a Climate Change Methodology (CCM) document and associated datasets from the Met Office, the output from this exercise is covered on the next slide
- The latest DESC review derived a new CWV formula and new basis for the Seasonal Normal, which both came into effect from the 1st October 2020
- Adjustments were performed on historic Temperature data to remove the effects of climate change, while still preserving year on year variability for the seasonal normal calculation

2012 Climate Change Methodology – Met Office

Previous CCM Requirements:

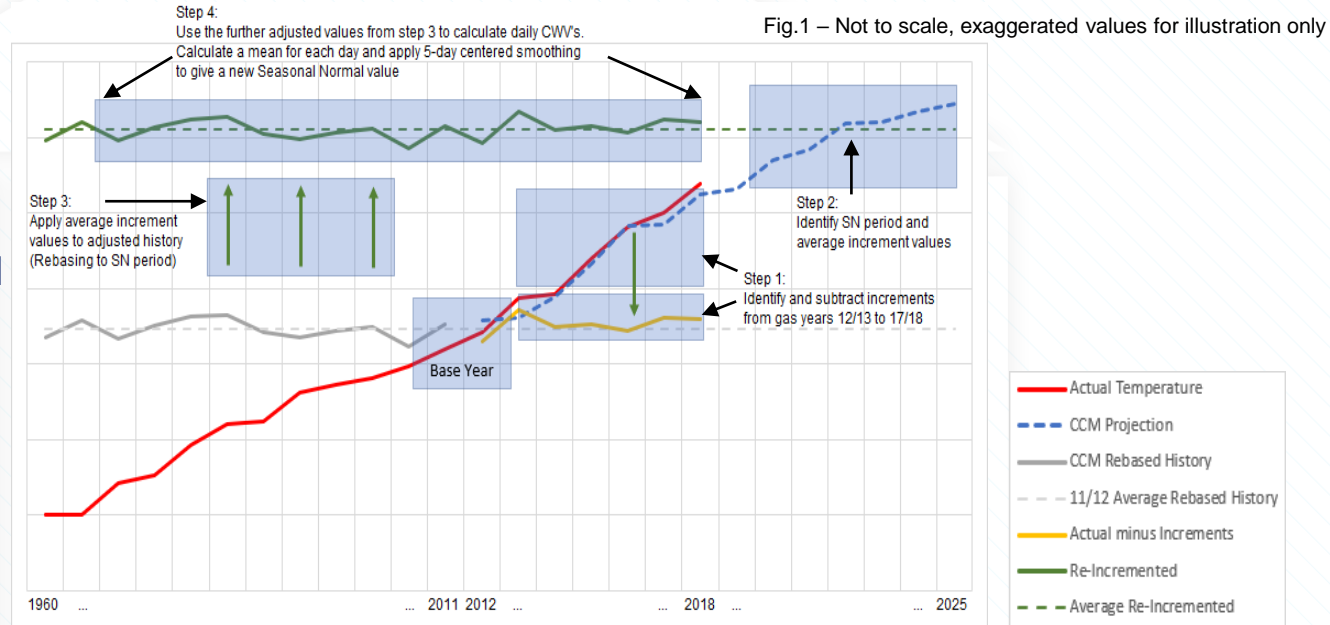
- *To provide a Climate Change Methodology for the Gas industry*
- *To adjust the historical observations from 1960-2011/2012 so that each year is consistent with the climatology of 2011/2012*
- *To produce an hourly projected time series for the 2011/2012-2025 period, for a number of relevant meteorological variables (temperature, wind speed, precipitation, solar radiation, relative humidity and wind direction).*
- *To calculate hourly increments between the value of the meteorological variables in the future period relative to the baseline year, 2011/2012*

Note: Previous CCM Material can be found on the secured area of Xoserve's website, UKLink Docs under folder:

[18. NDM Profiling and Capacity Estimation Algorithms \ Climate Change Methodology](#)

Current Approach for SNCWV

- The 2020 Seasonal Normal Review utilised the increments from the 2012 CCM to 'rebase' historical temperature observations to a level expected to be observed across the lifetime of the SN2020 basis
- These increments included data up to December 2025, there are no current projections past this date



[Further information can be found in the DESC slide pack from 5th November 2019](#)

Continued Trend of Increasing Temperatures

Chart 1

- Chart 1 shows the weighted daily Actual Temperature (AT) used in the CWV calculation
- Overall, an upward trend can be observed in the yearly data, as well as a steady increase in the average across each decade, including the latest.

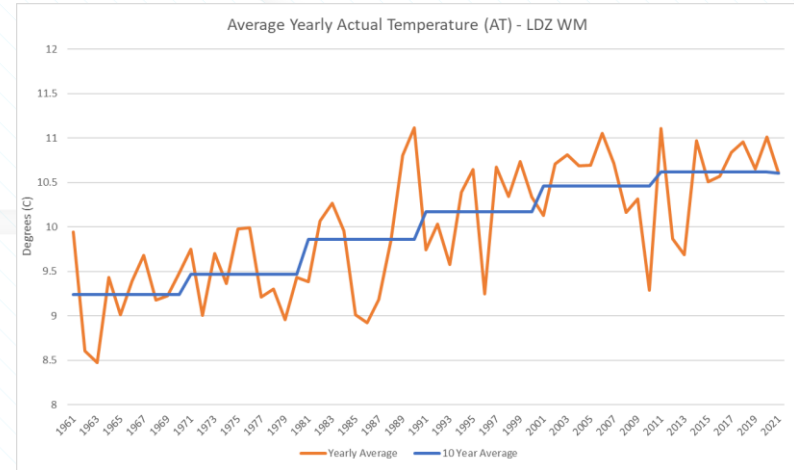
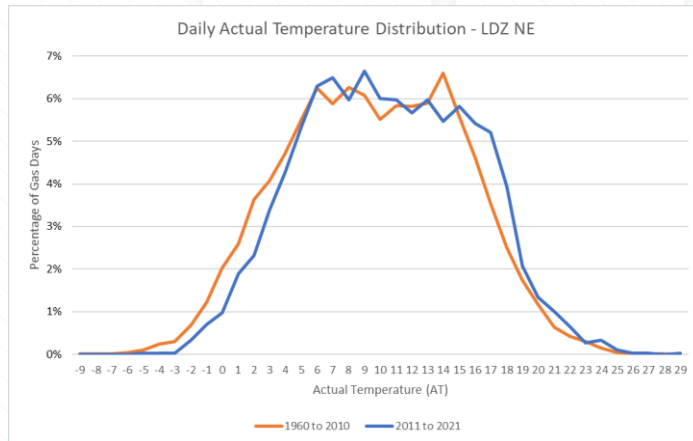


Chart 2



- Chart 2 shows a comparison of daily Actual Temperature before and after 2011. A reduction in the number of colder days and an increase in warmer days, with a similar variability can be observed
- Charts 1 and 2 show a single LDZ but are typical of trends observed across all LDZs

Summary and Next Steps

- To confirm, any changes to the Composite Weather Variable formula and/or any new Seasonal Normal basis would take effect from 1st October 2025
 - DESC would need to conclude it's review and confirm the new formula and values by the end of 2024
 - Due to the timescales involved in:
 - i) the potential procurement exercise for a new/refreshed Climate Change Methodology (CCM)
 - ii) CWV formula review and optimisation
 - iii) calculation of new seasonal normal basis and
 - iv) any system change implications
- the planning and activity timetable really needs to be reviewed and agreed by DESC towards the end of this year
- Next DESC meeting is 5th October 2022. What additional analysis / information would DESC like to see ahead of making a decision on next steps, particularly around the procurement of a CCM ?
 - For Information: Overview slides prepared for last Seasonal Normal Review (2020) are available on DESC's homepage [here](#)