



DESC Technical Workgroup

Seasonal Normal Review

- Updated

3rd December 2014

- Seasonal Normal Review
 - Background
 - Summary of Approach
 - Trial Phase
 - Production Phase
- Explanation of Results
- Final SNCWV values by LDZ
- Next Steps

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Seasonal Normal Review

Background

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- UNC (H1.5.4) states the relevant Sub-committee (DESC) “*will, at appropriate frequencies determined by it, after consultation with the Uniform Network Code Committee or any other relevant Sub-committee, review and where appropriate revise (with effect from the start of a Gas Year) the seasonal normal value of the Composite Weather Variable for an LDZ.* “
- DESC asked its Technical Workgroup to preside over the detailed analysis and provide recommendations back to DESC
- Last review carried out in autumn 2009 and implemented on 1st October 2010. The next comprehensive review is being performed in autumn 2014 in order to support an implementation on 1st October 2015
- The review is usually done in conjunction with an update of the CWV parameters which has now been completed and approved by DESC

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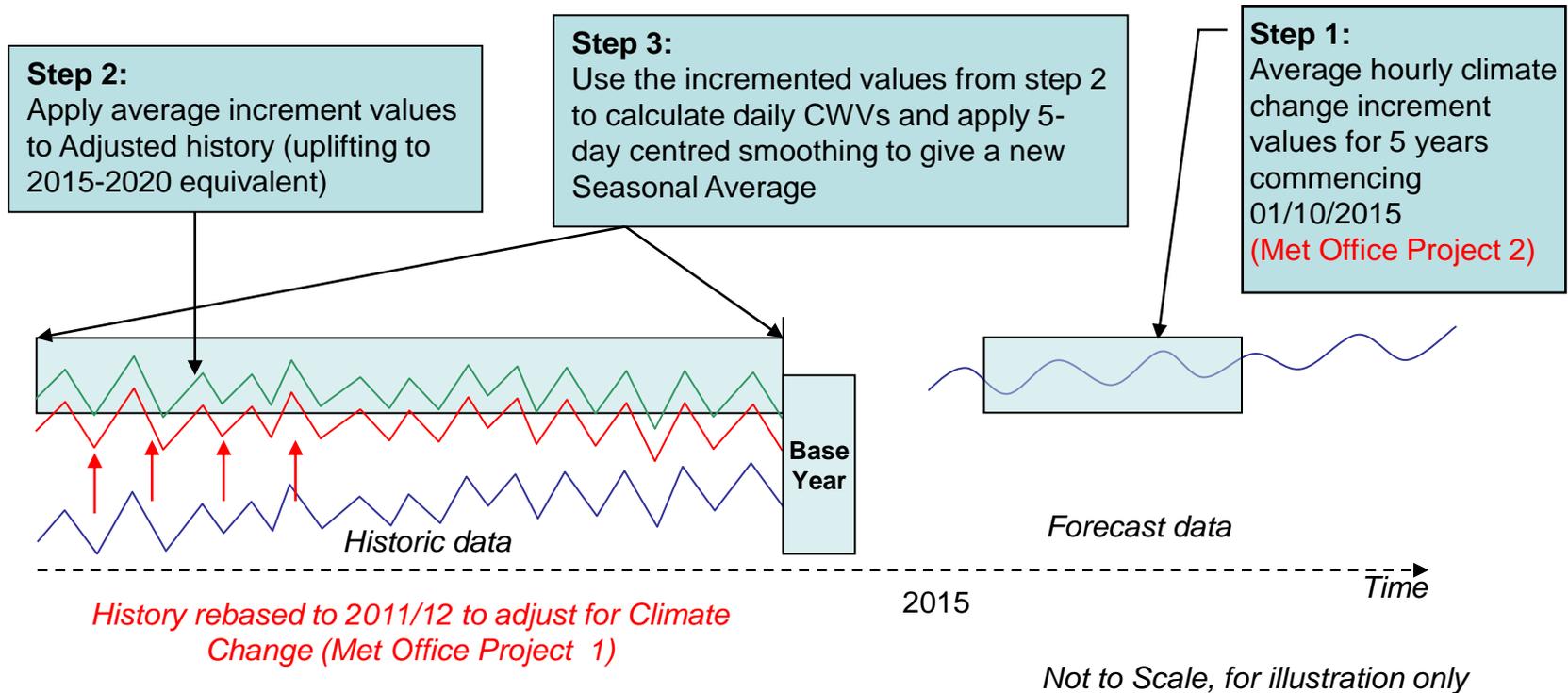
- The current Seasonal Normal Basis (SNCWV) introduced in October 2010 incorporated some outputs from Met Office EP2 Project – used estimated climate change increments
- UNC now states SNCWV should be based on output derived from ‘Climate Change Methodology’ (CCM)
- Requested outputs of CCM Project (*updated*)
 - 50+ years hourly historic data adjusted for estimated impacts of climate change v base year 2011/12
 - Predicted hourly average values for Gas Years 2012 to 2025
 - Predicted hourly increments – difference between base year and forecast year
- Stakeholder meeting on Nov 25th 2013 agreed how the outputs will be used in defining SNCWV for G.Yr 2015 onwards

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Use of Project Deliverables



Outcome: a new Seasonal Normal basis for each LDZ, derived from over 50 years actual history, uplifted to be consistent with Met Office projections of the impact of Climate Change over the 5 years commencing 1 October 2015

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Key Aspects of New Seasonal Normal basis

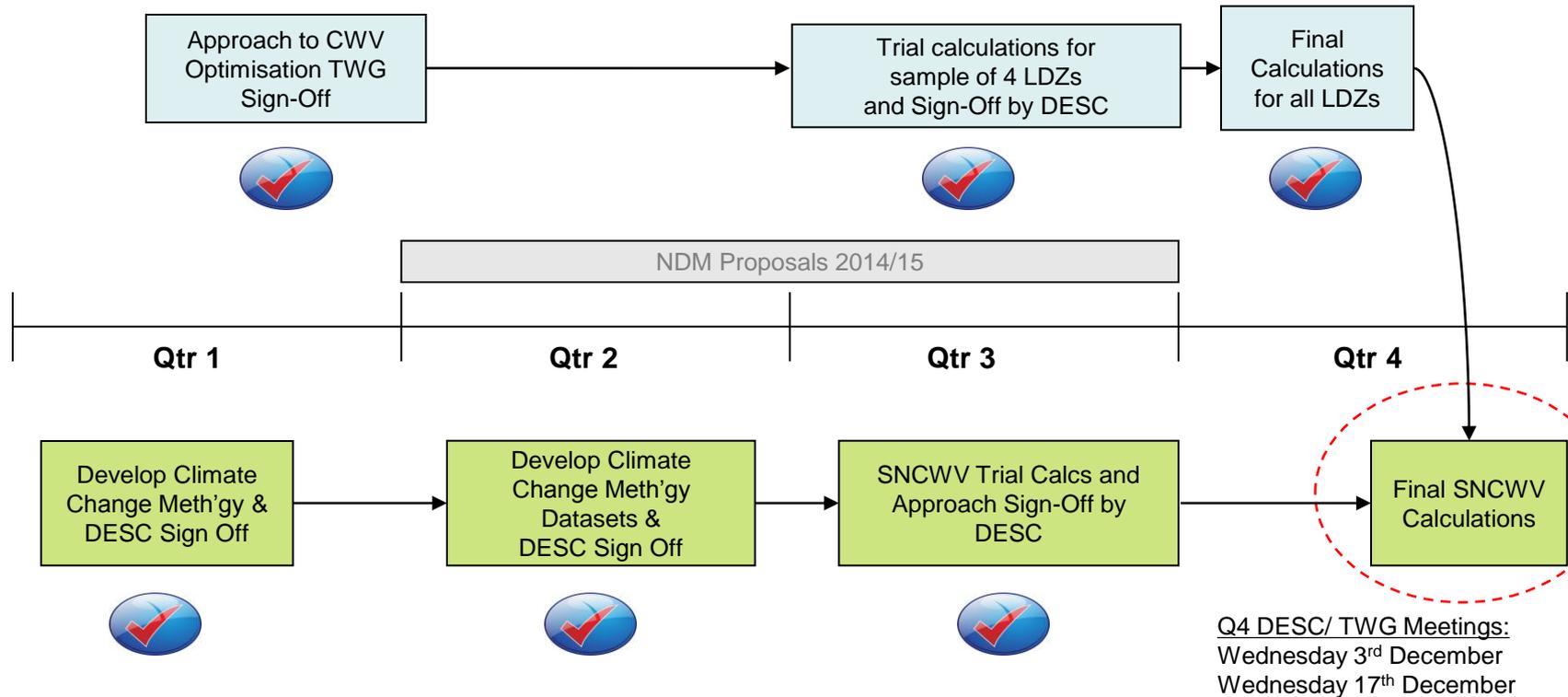
- The detailed approach document explaining the step by step process for deriving the new SNCWV can be viewed on the Joint Office website
- The main features of the approach are:
 - CCM temperature increments over the period 2015/16 to 2019/20 are averaged
 - Apply average increment values to CCM adjusted history (1960/61 to 2011/12)
 - Using CCM adjusted history for temperature (with increments added) and wind speed (no increments) calculate a CWV for each day in the period 1st October 1960 to 30th September 2012
 - In order to create a single CWV value for each day average the CWV values and then smooth using a 5 day centred moving average
- All source data used in the process will be available to all industry parties

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Seasonal Normal Review & CWV Optimisation Timeline



KEY:

CWV
Optimisation

Derivation of
SNCWV

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- A draft approach document describing how the Seasonal Normal Composite Weather Variable would be calculated was drafted and agreed during the Trial phase
- The approach was then followed using the appropriate CCM files and the **EXISTING** CWV parameters for 4 LDZs enabling some initial results to be reviewed
- The key objectives of the Trial phase were to check the approach had worked appropriately, review the likely output and agree any smoothing techniques that should be applied to the data (if necessary)
- At the DESC meeting on 15th October the approach document was formally approved. It was also agreed that a 5 day centred moving average should be applied as the smoothing technique

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- The objective of the Production Phase is to apply the approved methodology for calculating the SNCWV for all LDZs, using the appropriate data from the Climate Change Methodology project (CCM) and the recently approved set of **REVISED** CWV parameters (see slide 11)
- Although there are no decisions to make, as such, there will be a sense check necessary of the new SNCWV profiles. Therefore, for each LDZ a series of charts will be produced comparing the REVISED SNCWV with the EXISTING SNCWV
- At the end of the Production Phase TWG will be asked to provide its recommendation to DESC on the new Seasonal Normal version of the CWV to be used for each LDZ with effect from 1st Oct '15
- As with the CWV Optimisation work, DESC need to approve a revised set of SNCWVs and present to the industry by the end of the year, in readiness for AQ review 2015

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The revised parameters of each composite weather variable are as follows:

LDZ	Weather Station	I ₁	I ₂	I ₃	V ₀	V ₁	V ₂	q	W ₀	T ₀
SC	Glasgow Bishopton									
NO	Albermarle Barracks									
NW	Rostherne No 2									
NE	Nottingham Watnall									
EM	Nottingham Watnall									
WM	Birmingham Winterbourne 2 (wind speeds Coleshill)									
WN	Rostherne No 2									
WS	St. Athan									
EA	London Heathrow									
NT	London Heathrow									
SE	London Heathrow									
SO	Southampton Oceanographic Institute									
SW	Filton Weather Station									

Updated: December '15
Latest version of the CWV
parameters are available in
Appendix 12 of the current
Gas Years folder on the
secure Xoserve website

Seasonal Normal Review

Explanation of Results

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- The method used for assessing weather conditions in each gas year has been calculated using “degree days”. This is a technique which allows a quick comparison of CWV historic levels
- Degree Days – an explanation:
 - For any gas day, in any LDZ the value of degree days is given by:
degree days (on gas day t) = Threshold – CWV on gas day t
- Since CWV is defined in terms of their fit to aggregate NDM demand in each LDZ, the threshold value used is that applicable to aggregate NDM demand in each LDZ
- The choice of threshold ensures that degree day values are never negative
 - The degree day thresholds applied are provided at the end of the presentation
- The degree day bar charts for each LDZ have been displayed using a consistent scale, therefore the ‘bars’ for some of the warmer southerly LDZs will be lower down the slide

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- All data has been derived using the newly revised definitions of CWV
- Graphs are provided for each LDZ showing the current SNCWV profile and the new SNCWV profile (Results 1)
- Charts are provided for each LDZ showing the current and new SNCWV annual degree days and actual annual degree days for each year since 2004/05 (Results 2)
- % change assessment between the two profiles in degree day terms (Results 3)
- Files of data (for all LDZs) available on Xoserve website:
 - New SNCWV profile values (expressed for 2015/16 dates)
 - New SNET profile values (expressed for 2015/16 dates)
 - Historical daily CWVs for each LDZ: 01/10/1960 to 30/09/2014

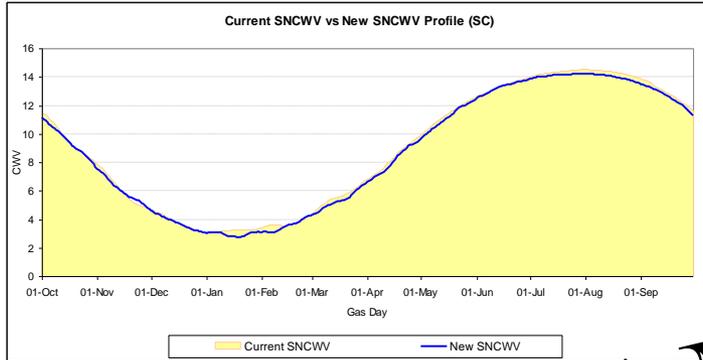
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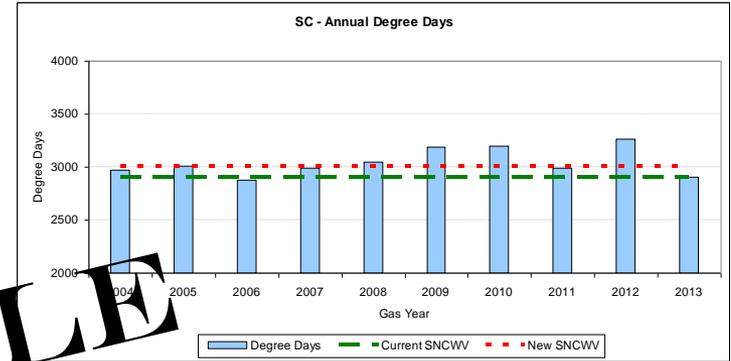
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Example of Results provided per LDZ

Results 1: SNCWV Profile Comparison



Results 2: Annual Degree Day analysis



EXAMPLE

Threshold	16.9
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Overall % change from current SNCWV		
Annual	3.6%	Colder
Dec to Feb	3.7%	Colder
Mar to May	3.1%	Colder
Jun to Aug	8.0%	Colder
Sep to Nov	2.0%	Colder

Results 3: % change summary

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for SC

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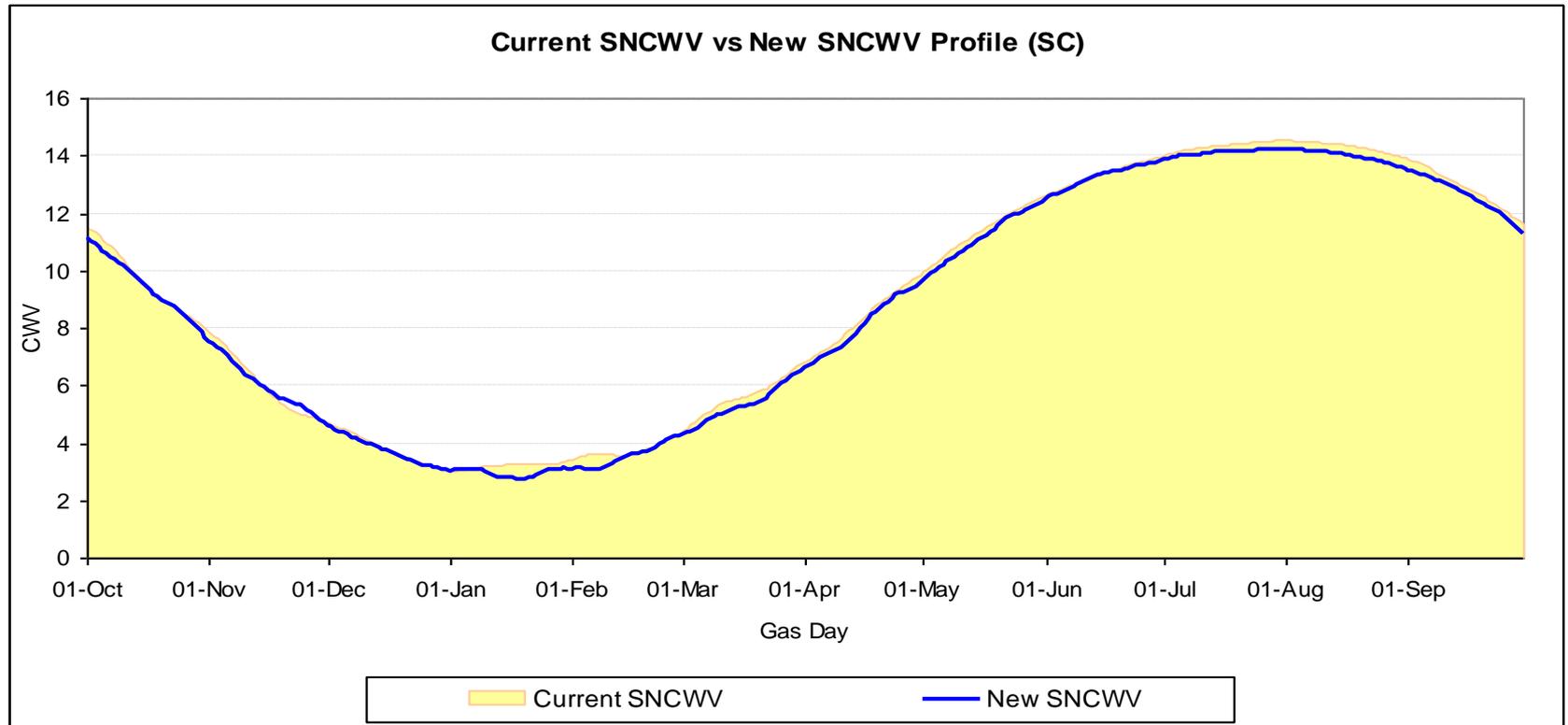
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- **Glasgow Bishopton** weather station (**03134**) used for **SC** calculations
- Source data used for increment calculations:
 - Temperature_03134_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03134_adjhist.txt and Windspeed_03134_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 11 records
 - Windspeed 1,030 records. Note this includes a significant missing period for the whole of April 1973
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: SC LDZ – SNCWV profile comparison

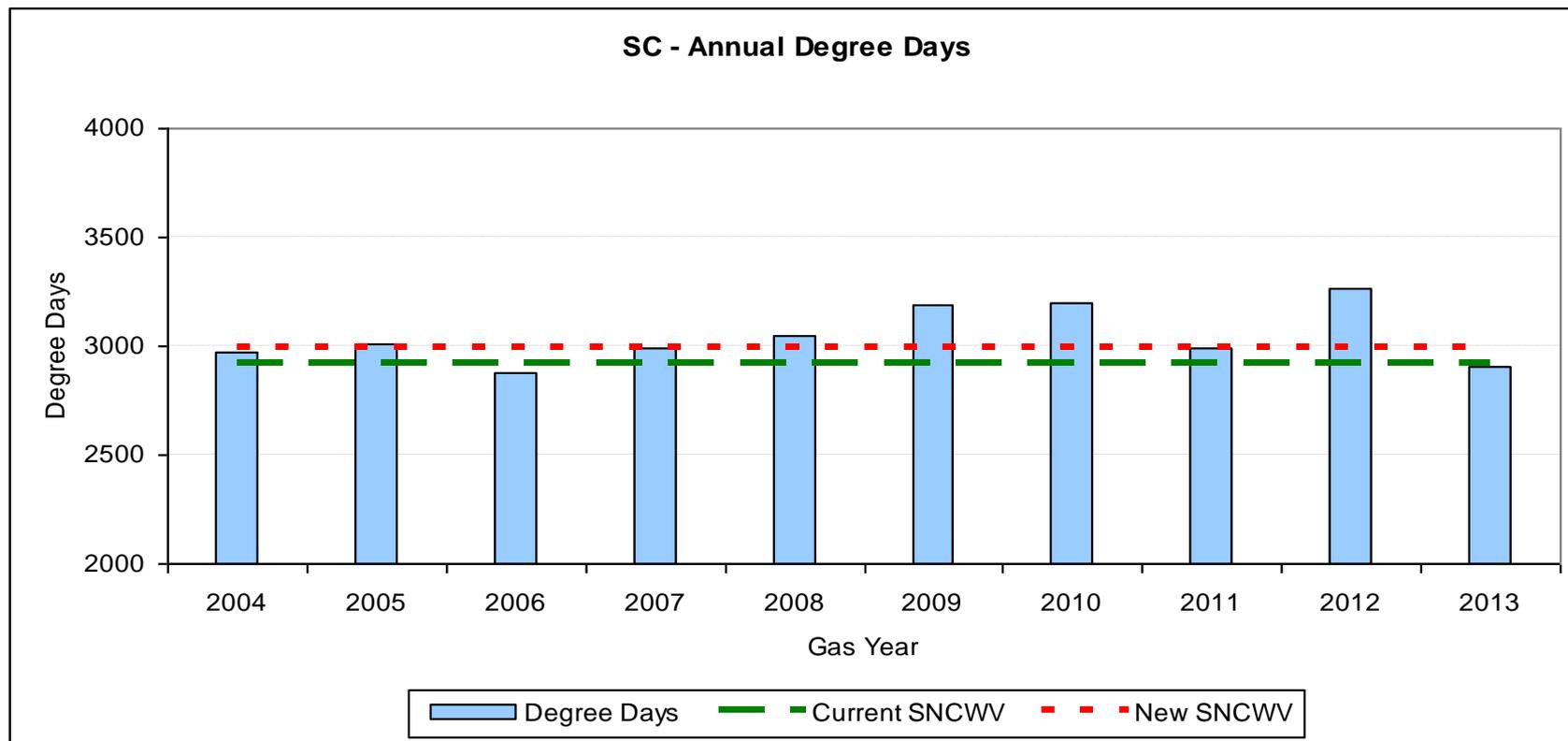


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Results 2: SC LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- Only 1 year in last 10 have been warmer than current Seasonal Normal

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Results 3: SC LDZ – % Change in SNCWV basis

DD Threshold	16.9	
Overall % change from current SNCWV		
Annual	2.6%	Colder
Dec to Feb	1.4%	Colder
Mar to May	3.1%	Colder
Jun to Aug	8.0%	Colder
Sep to Nov	2.0%	Colder

- New SNWCV approx 2.6% colder than current basis
- All 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for NO

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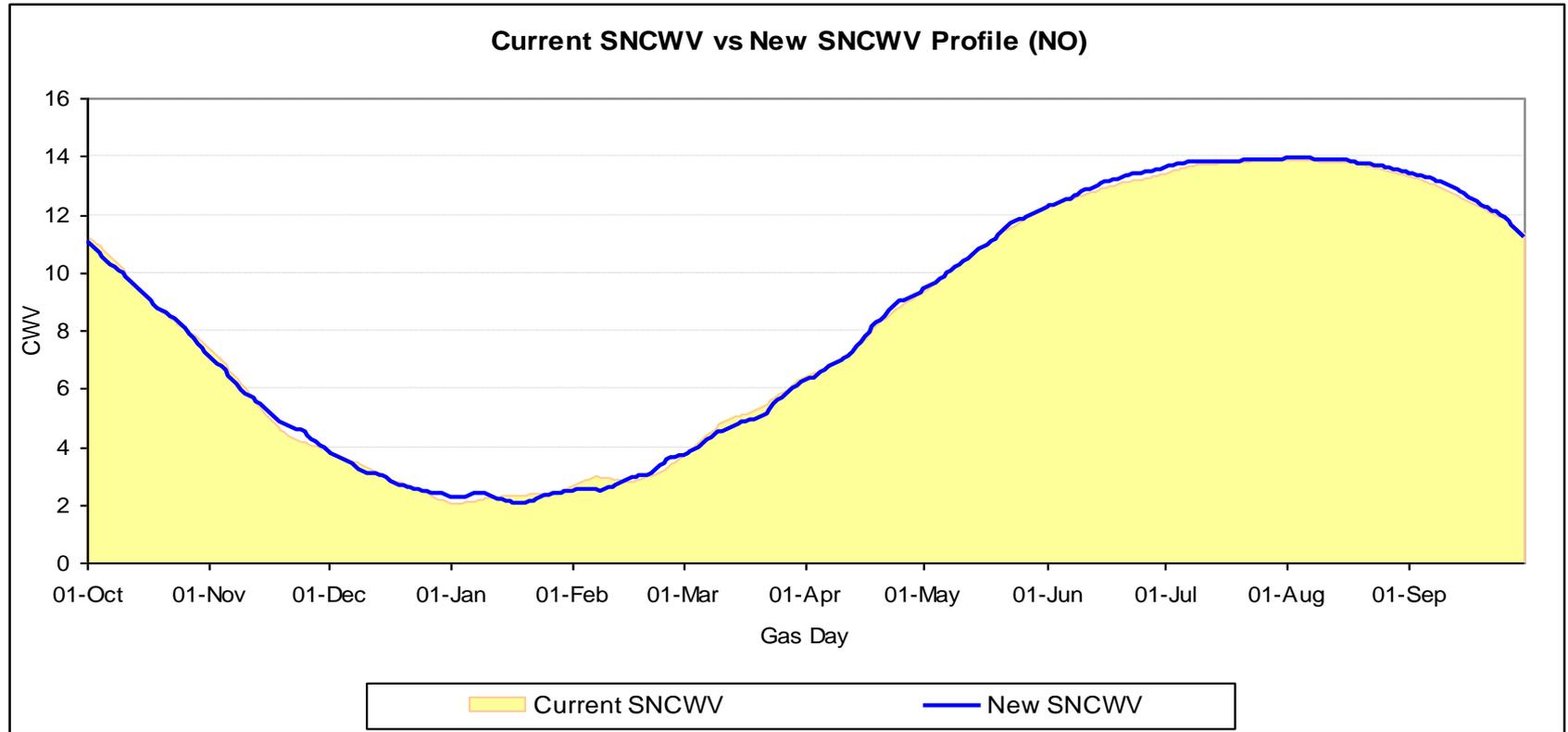
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- **Albermarle Barracks** weather station (**03238**) used for **NO** calculations
- Source data used for increment calculations:
 - Temperature_03238_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03238_adjhist.txt
 - Windspeed_03238_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 458 records
 - Windspeed 480 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: NO LDZ – SNCWV profile comparison

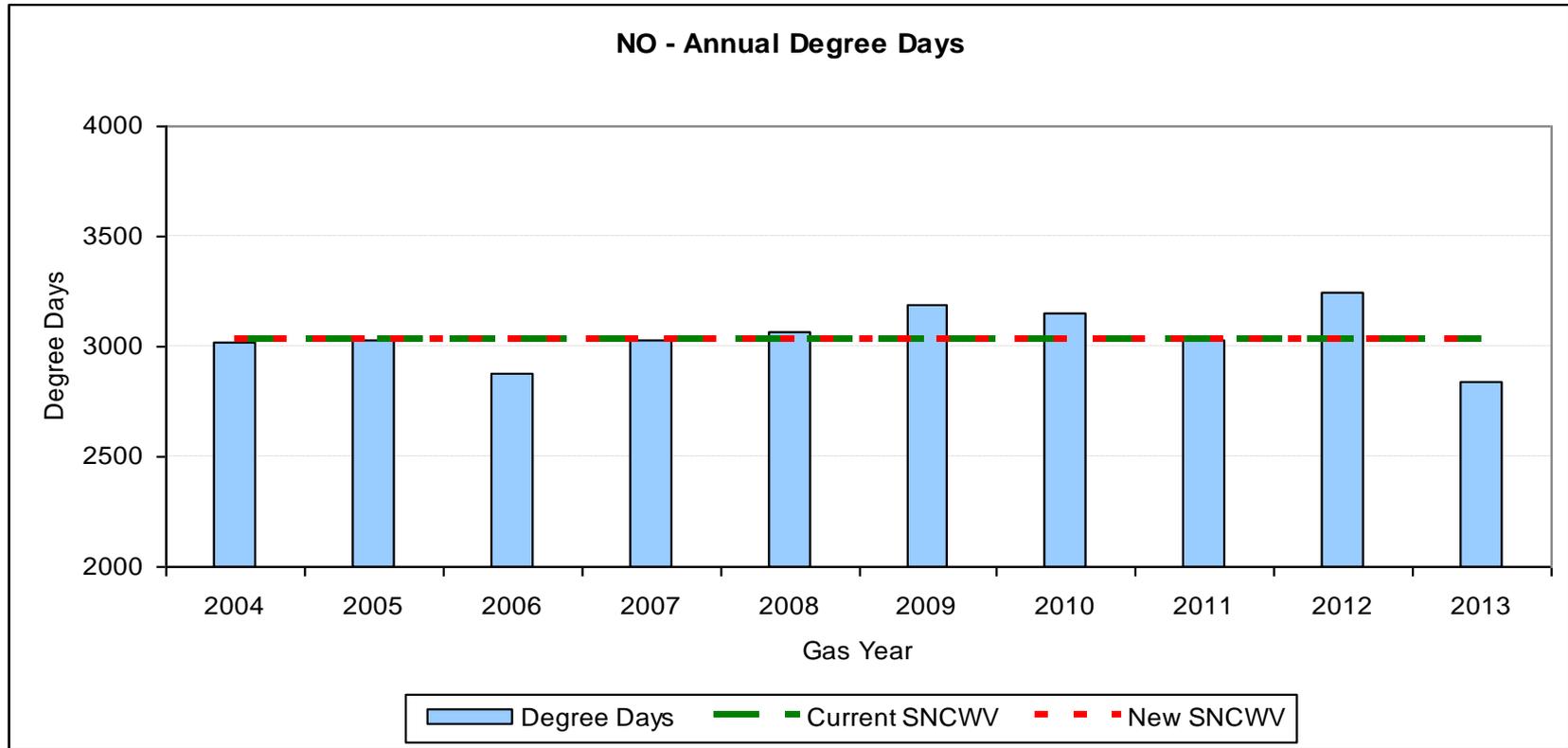


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Results 2: NO LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: NO LDZ – % Change in SNCWV basis

DD Threshold	16.6	
Overall % change from current SNCWV		
Annual	0.1%	Colder
Dec to Feb	0.3%	Colder
Mar to May	0.9%	Colder
Jun to Aug	-2.4%	Warmer
Sep to Nov	-0.4%	Warmer

- New SNWCV approx 0.1% colder than current basis
- 2 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for NW/WN

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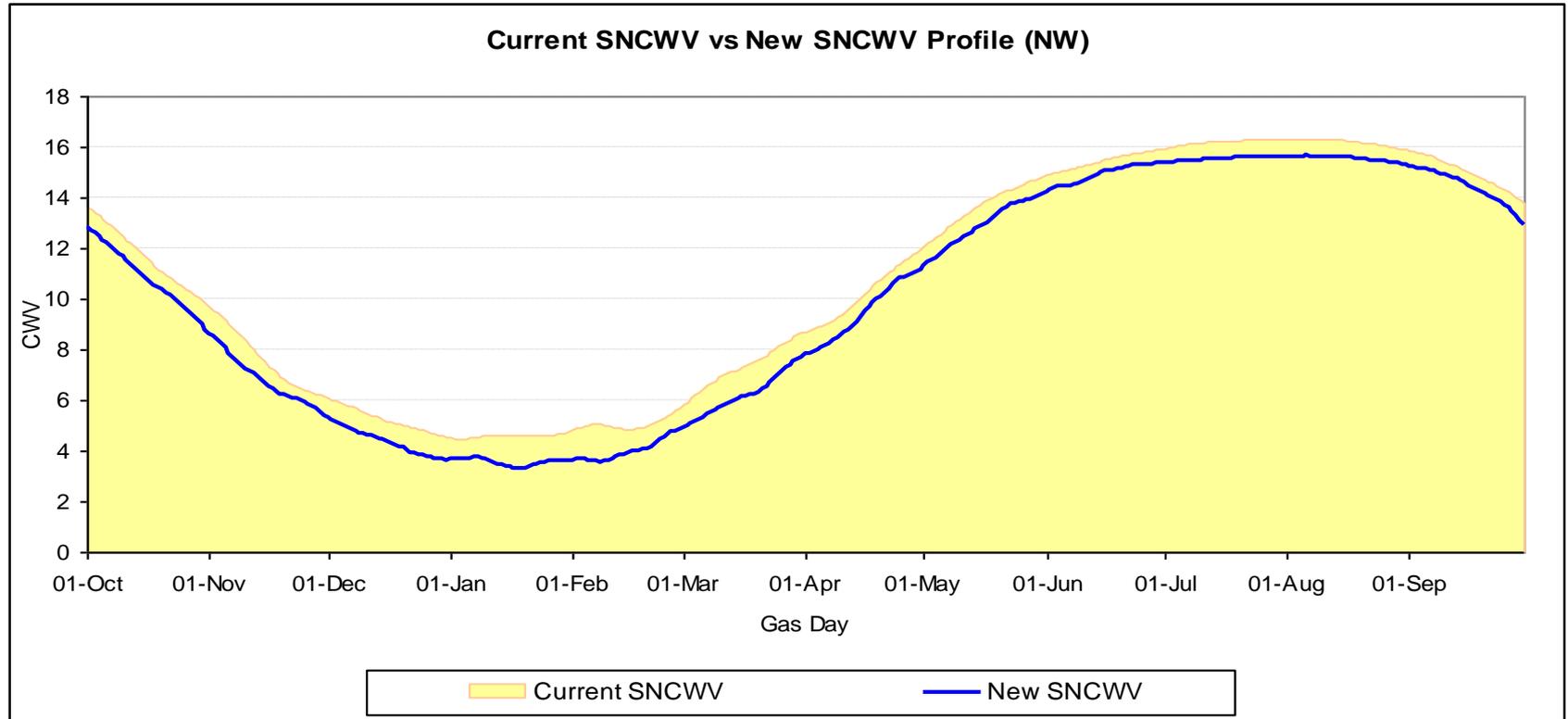
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- **Rostherne No.2** weather station (**03351**) used for **NW/WN** calculations
Note: This is a change from Manchester Hulme Library
- New station is more rural and therefore records cooler temperatures which will naturally impact the new SNCWV calculations
- Source data used for increment calculations:
 - Temperature_03351_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03351_adjhist.txt and Windspeed_03351_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 494 records and Windspeed 11 records
- CWVs calc'd from above data & TWG approved CWV parameters & Pseudo SNETs

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Results 1: NW/WN LDZ – SNCWV profile comparison

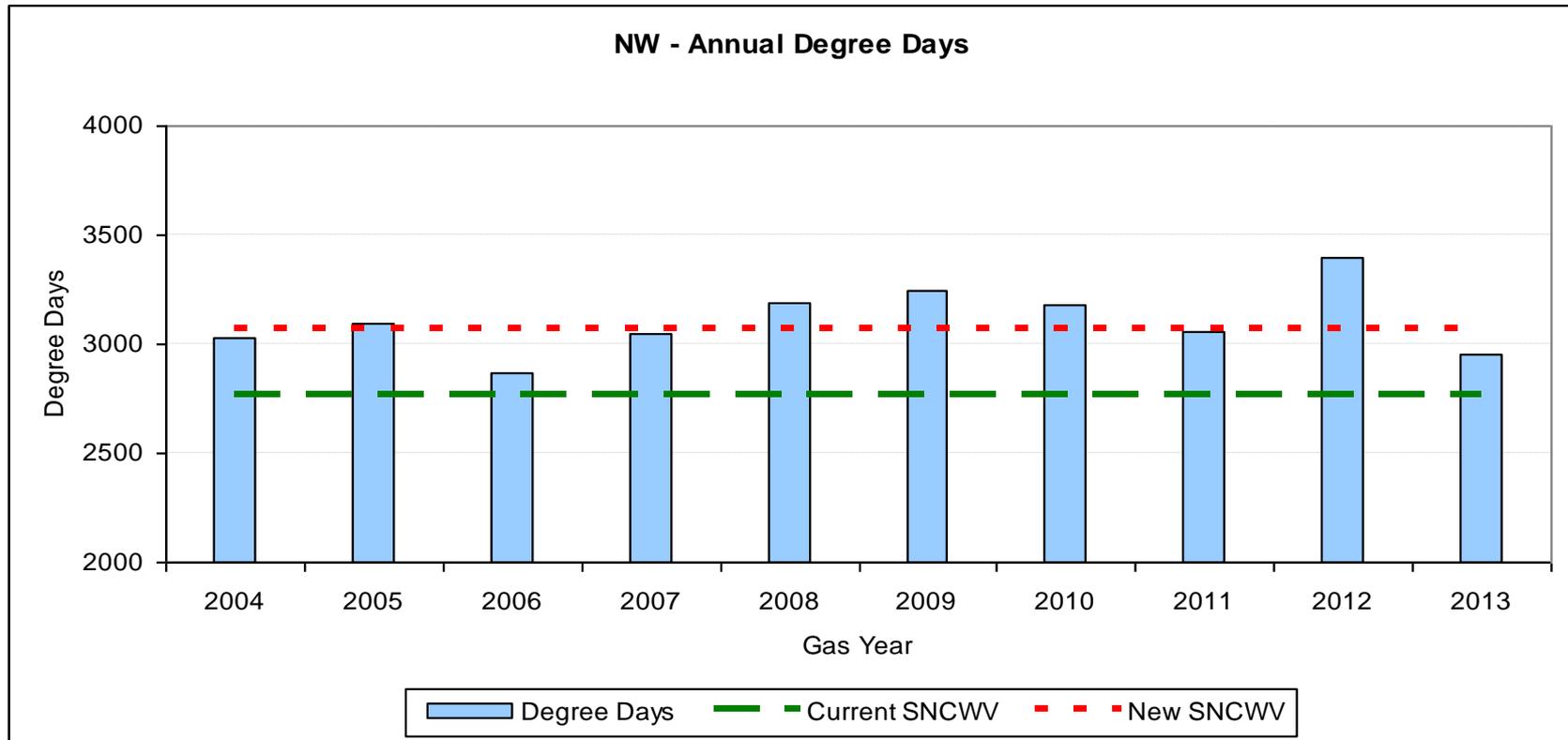


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Results 2: NW/WN LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- Current SNCWV is based on Manchester Hulme Library and so not comparable with the actual weather experienced in last 10 years (shown here)

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Results 3: NW/WN LDZ – % Change in SNCWV basis

DD Threshold	18.3	
Overall % change from current SNCWV		
Annual	10.7%	Colder
Dec to Feb	7.5%	Colder
Mar to May	11.3%	Colder
Jun to Aug	26.4%	Colder
Sep to Nov	10.7%	Colder

- New SNWCV approx 11% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for NE

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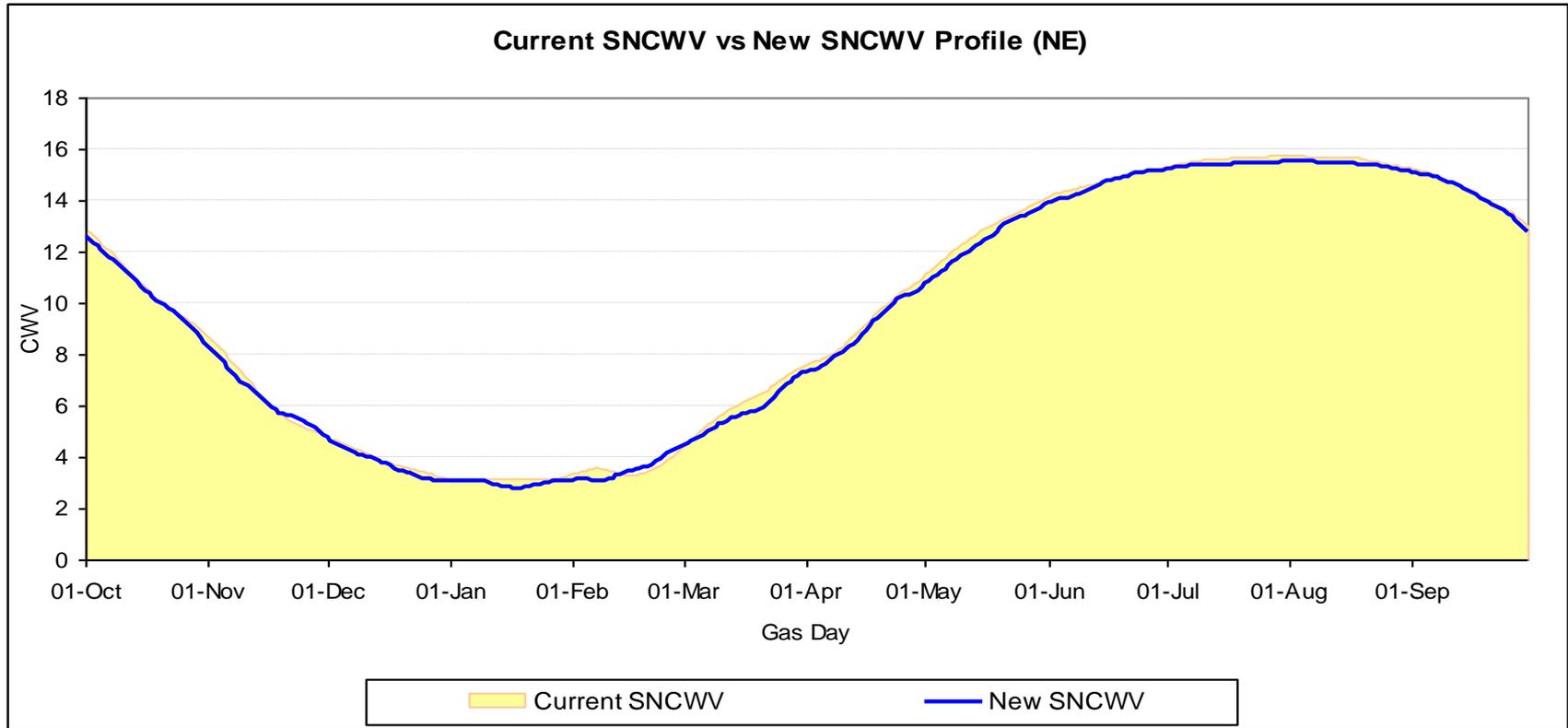
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- **Nottingham Watnall** weather station (**03354**) used for **NE** calculations
- Source data used for increment calculations:
 - Temperature_03354_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03354_adjhist.txt
 - Windspeed_03354_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 11 records
 - Windspeed 2 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: NE LDZ – SNCWV profile comparison

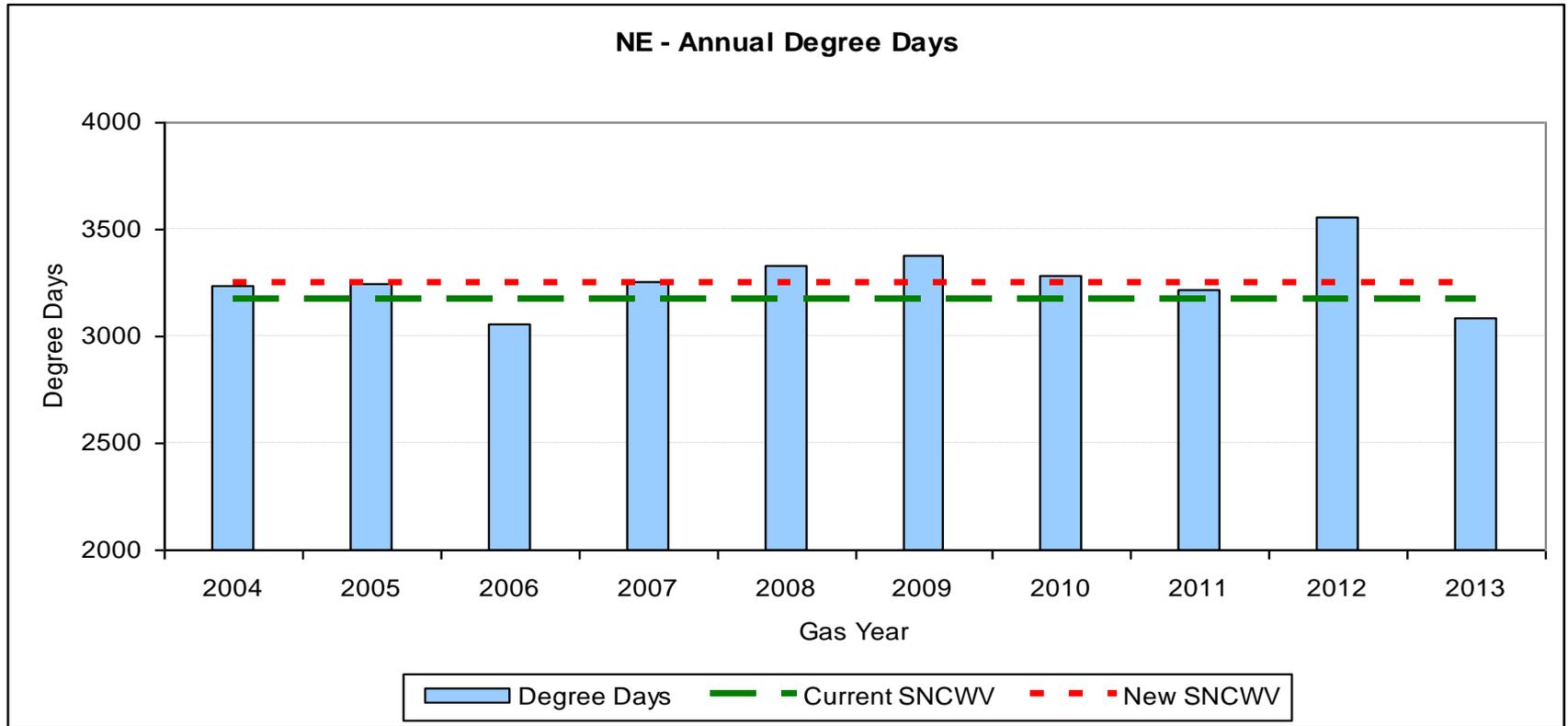


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Results 2: NE LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: NE LDZ – % Change in SNCWV basis

DD Threshold	18.4	
Overall % change from current SNCWV		
Annual	2.2%	Colder
Dec to Feb	0.8%	Colder
Mar to May	3.9%	Colder
Jun to Aug	6.0%	Colder
Sep to Nov	1.5%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for EM

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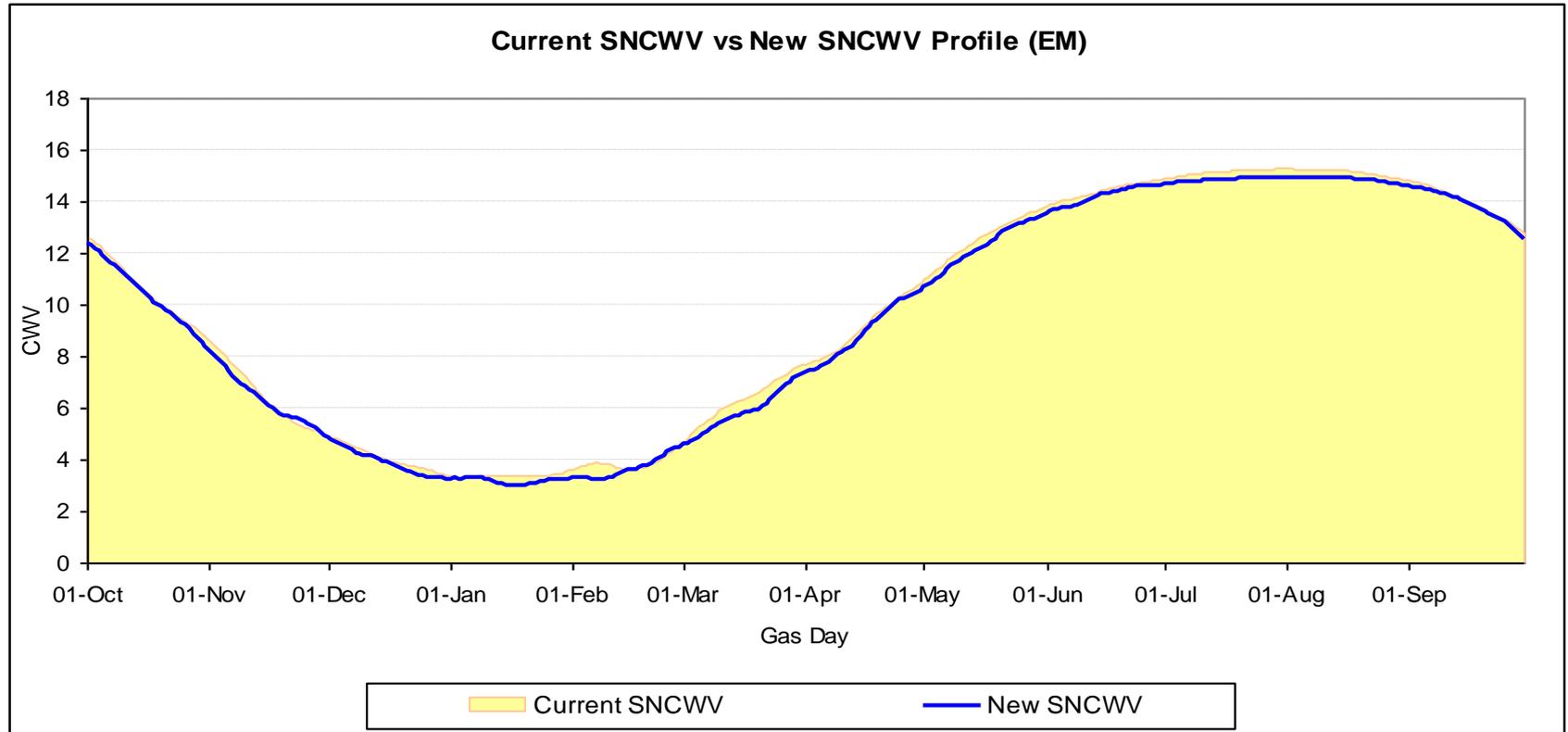
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- **Nottingham Watnall** weather station (**03354**) used for **EM** calculations
- Source data used for increment calculations:
 - Temperature_03354_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03354_adjhist.txt
 - Windspeed_03354_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 11 records
 - Windspeed 2 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: EM LDZ – SNCWV profile comparison

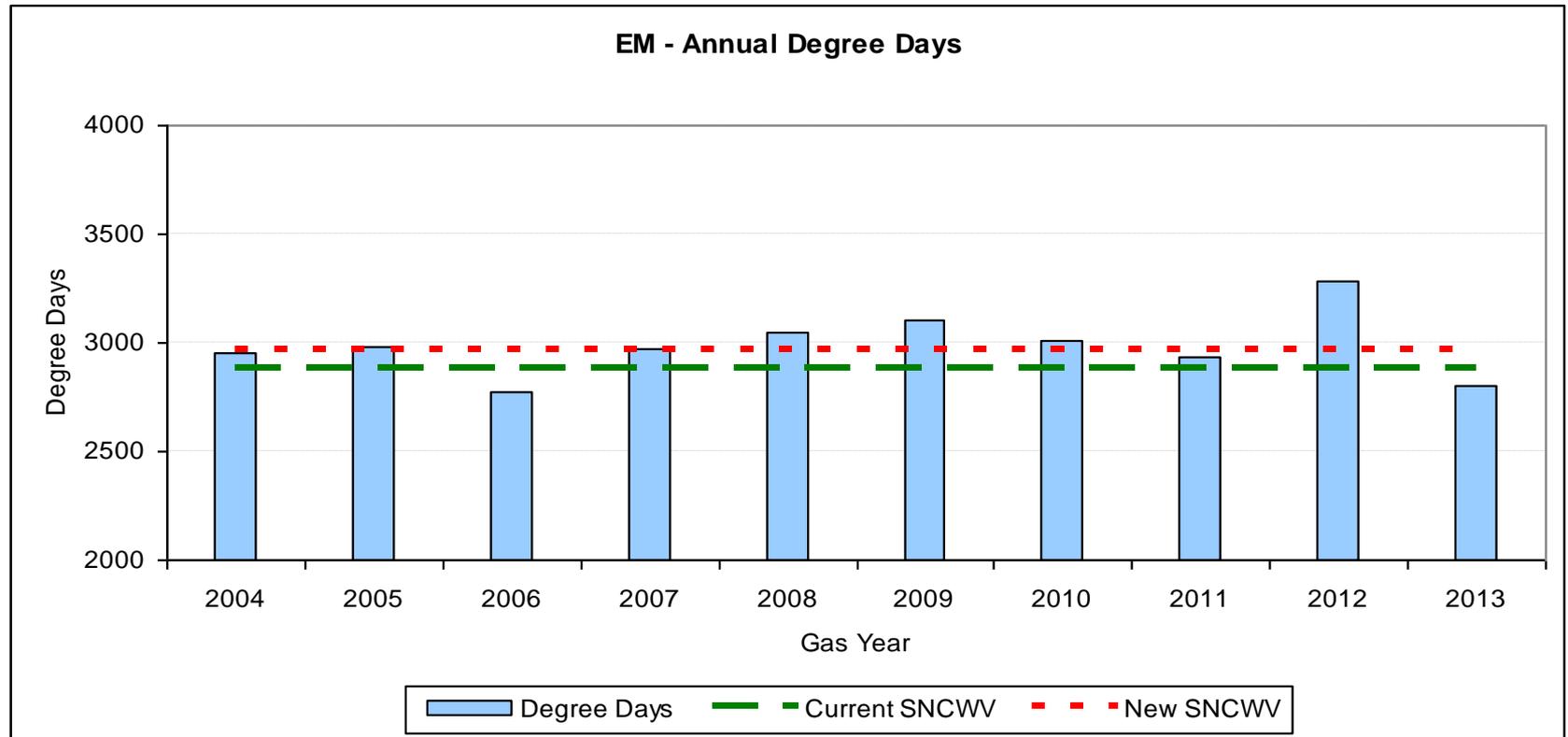


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Results 2: EM LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: EM LDZ – % Change in SNCWV basis

DD Threshold	17.5	
Overall % change from current SNCWV		
Annual	3.1%	Colder
Dec to Feb	1.6%	Colder
Mar to May	4.4%	Colder
Jun to Aug	10.4%	Colder
Sep to Nov	1.9%	Colder

- New SNWCV approx 3% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for WM

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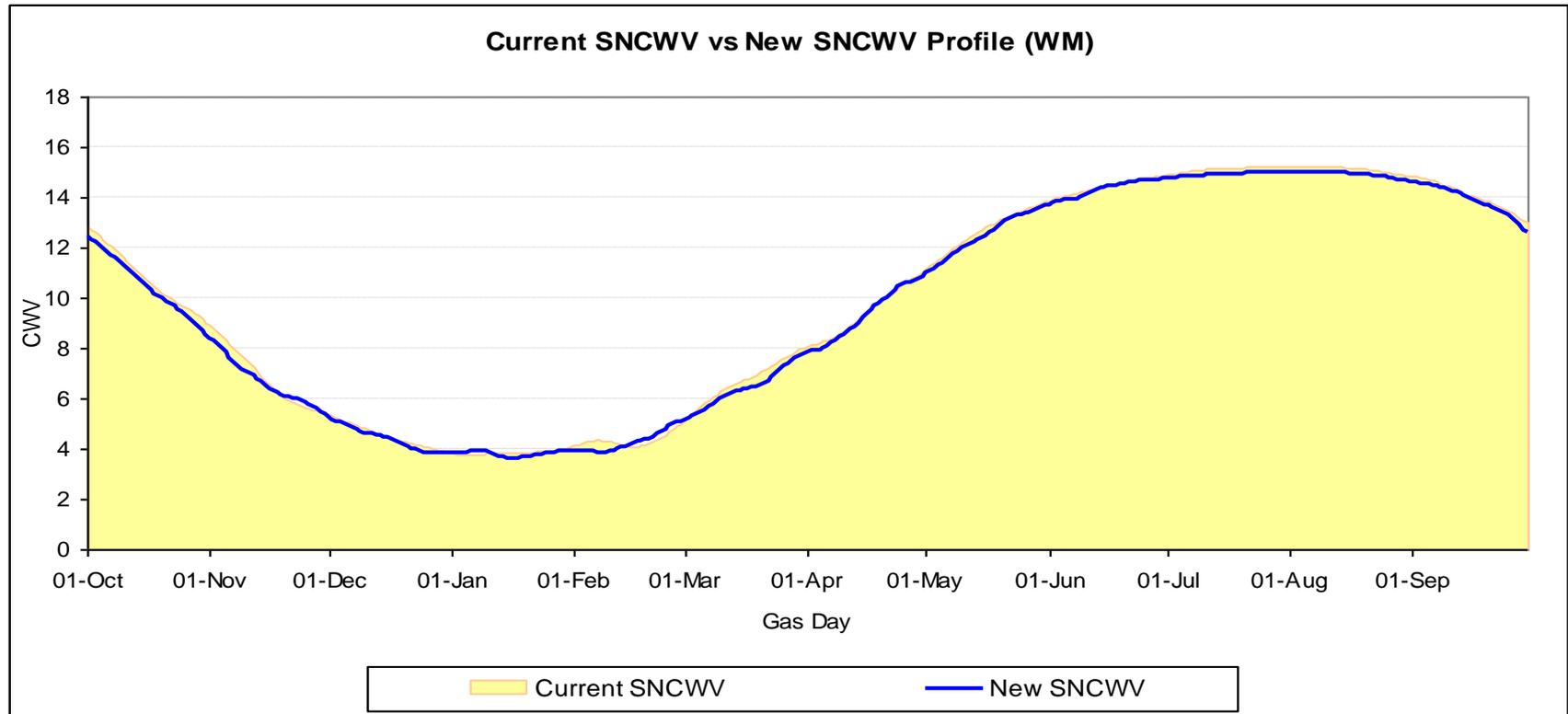
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- **Winterbourne No. 2** and **Coleshill** weather stations (**99062** and **03535**) used for **WM** calculations
- Source data used for increment calculations:
 - Temperature_99062_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_99062_adjhist.txt
 - Windspeed_03535_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 58 records and Windspeed 1 record
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: WM LDZ – SNCWV profile comparison

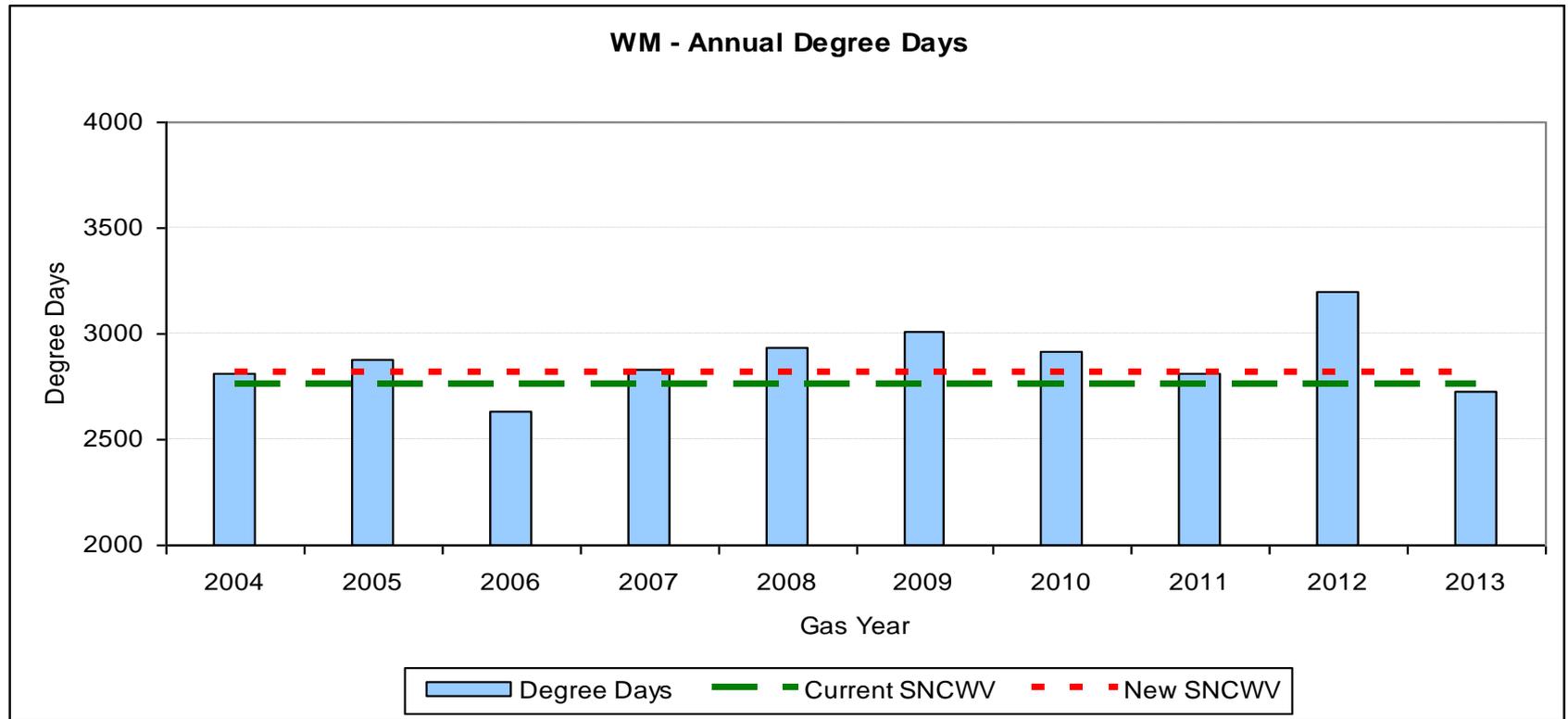


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Results 2: WM LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: WM LDZ – % Change in SNCWV basis

DD Threshold	17.4	
Overall % change from current SNCWV		
Annual	2.3%	Colder
Dec to Feb	0.6%	Colder
Mar to May	2.7%	Colder
Jun to Aug	7.3%	Colder
Sep to Nov	3.2%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for WS

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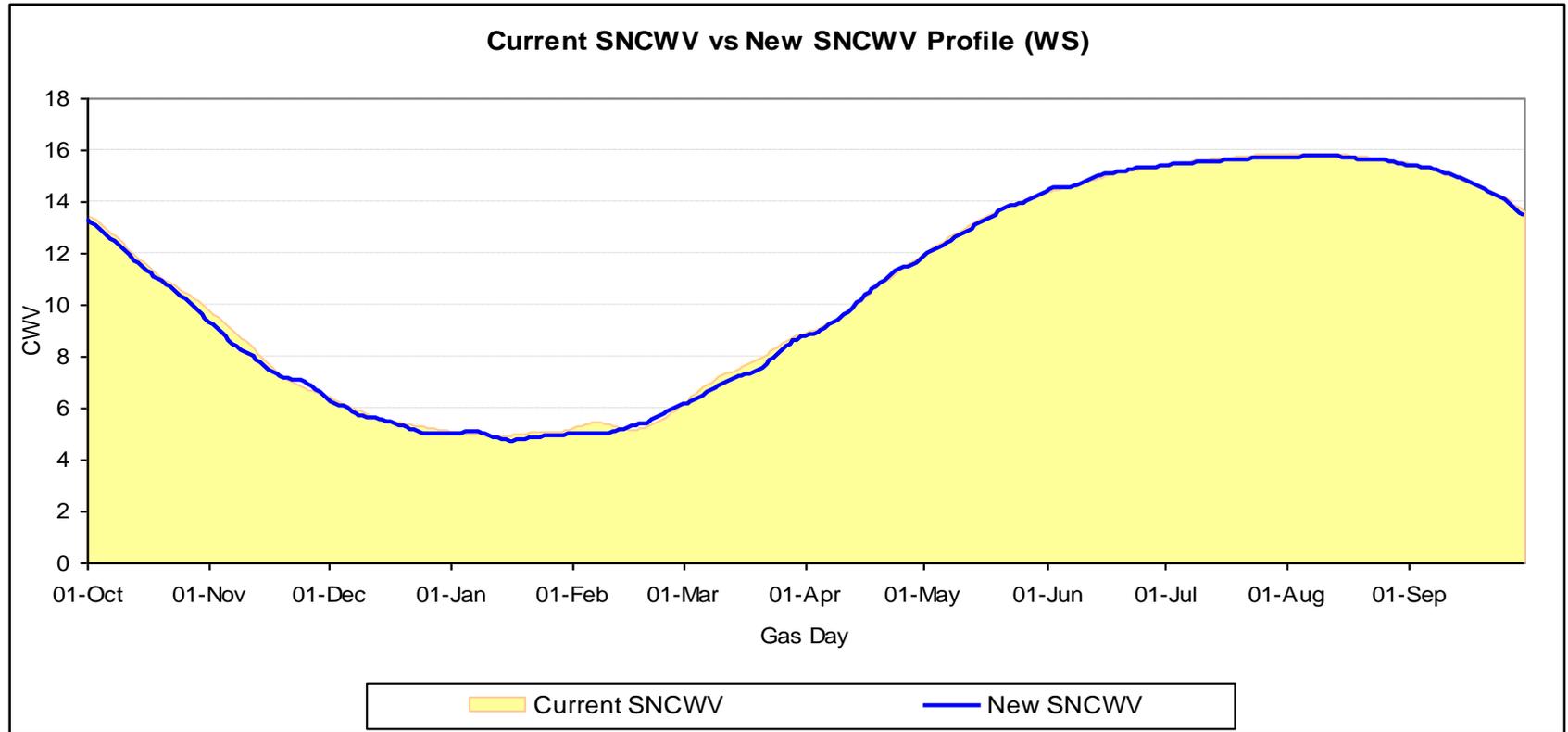
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- **St.Athan** weather station (**03716**) used for **WS** calculations
- Source data used for increment calculations:
 - Temperature_03716_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03716_adjhist.txt
 - Windspeed_03716_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 262 records
 - Windspeed 1 record
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: WS LDZ – SNCWV profile comparison

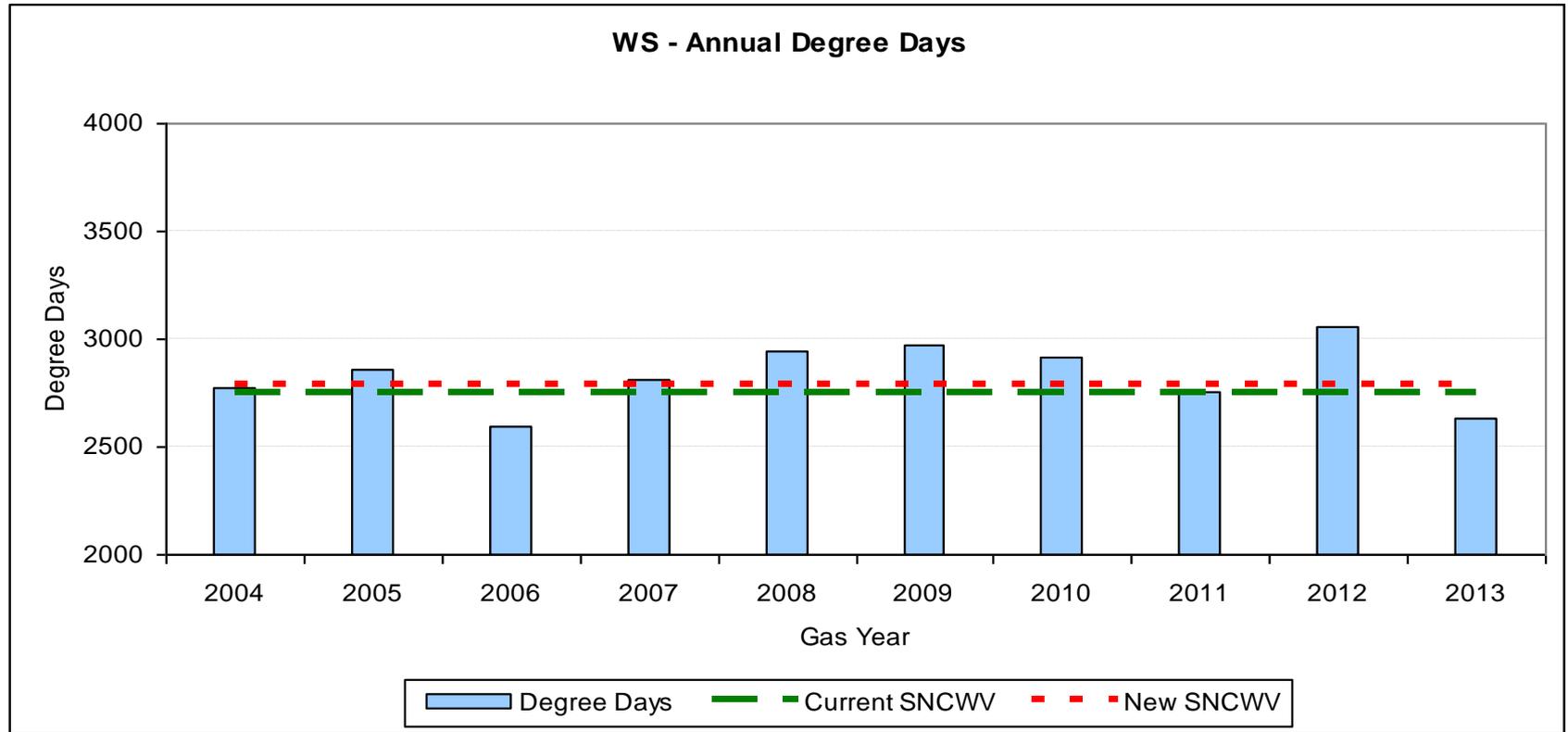


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Results 2: WS LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: WS LDZ – % Change in SNCWV basis

DD Threshold	18.2	
Overall % change from current SNCWV		
Annual	1.6%	Colder
Dec to Feb	0.9%	Colder
Mar to May	2.2%	Colder
Jun to Aug	2.3%	Colder
Sep to Nov	2.2%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for EA

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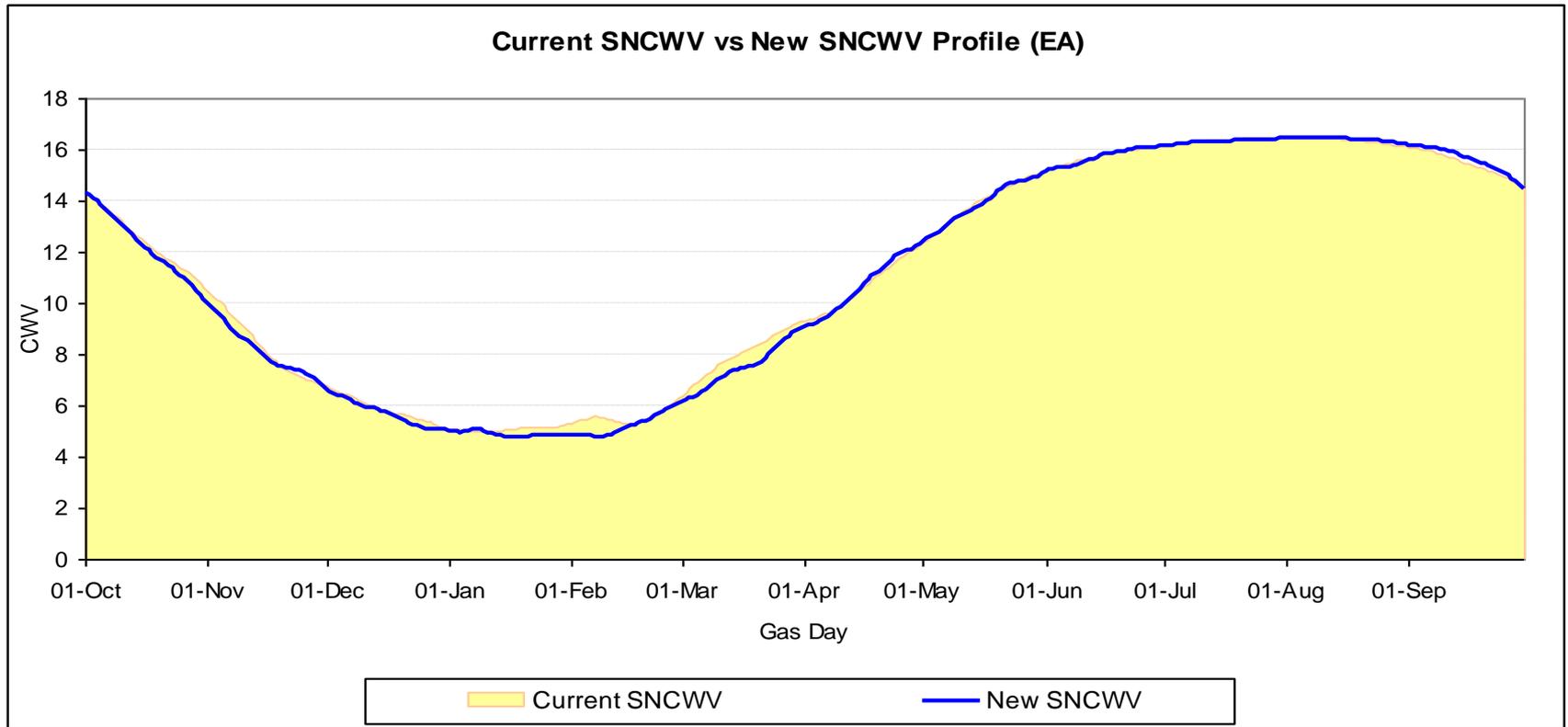
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- **London Heathrow** weather station (**03772**) used for **EA** calculations
- Source data used for increment calculations:
 - Temperature_03772_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03772_adjhist.txt
 - Windspeed_03772_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 0 records
 - Windspeed 0 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: EA LDZ – SNCWV profile comparison

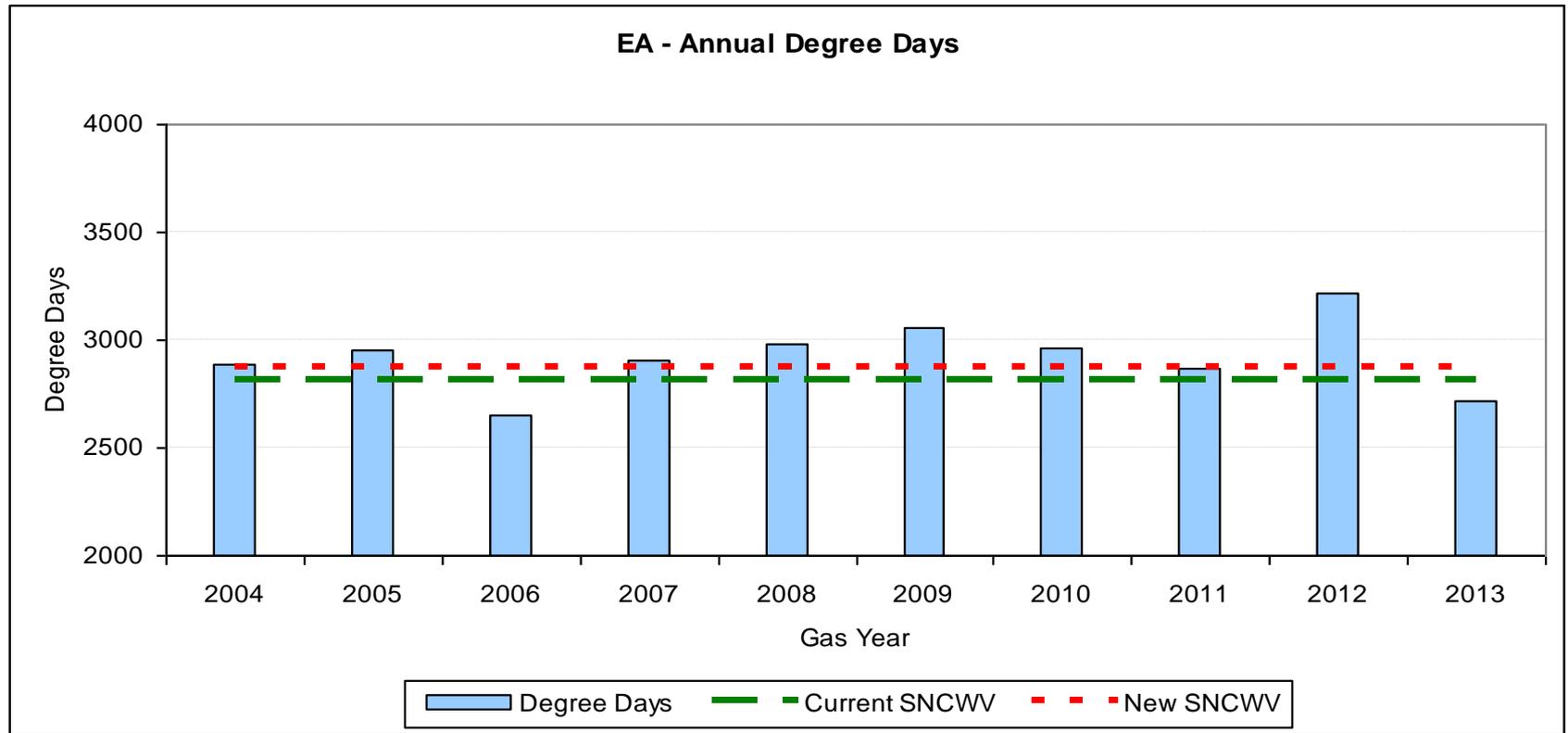


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Results 2: EA LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: EA LDZ – % Change in SNCWV basis

DD Threshold	18.9	
Overall % change from current SNCWV		
Annual	1.8%	Colder
Dec to Feb	1.8%	Colder
Mar to May	2.7%	Colder
Jun to Aug	0.9%	Colder
Sep to Nov	1.1%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for NT

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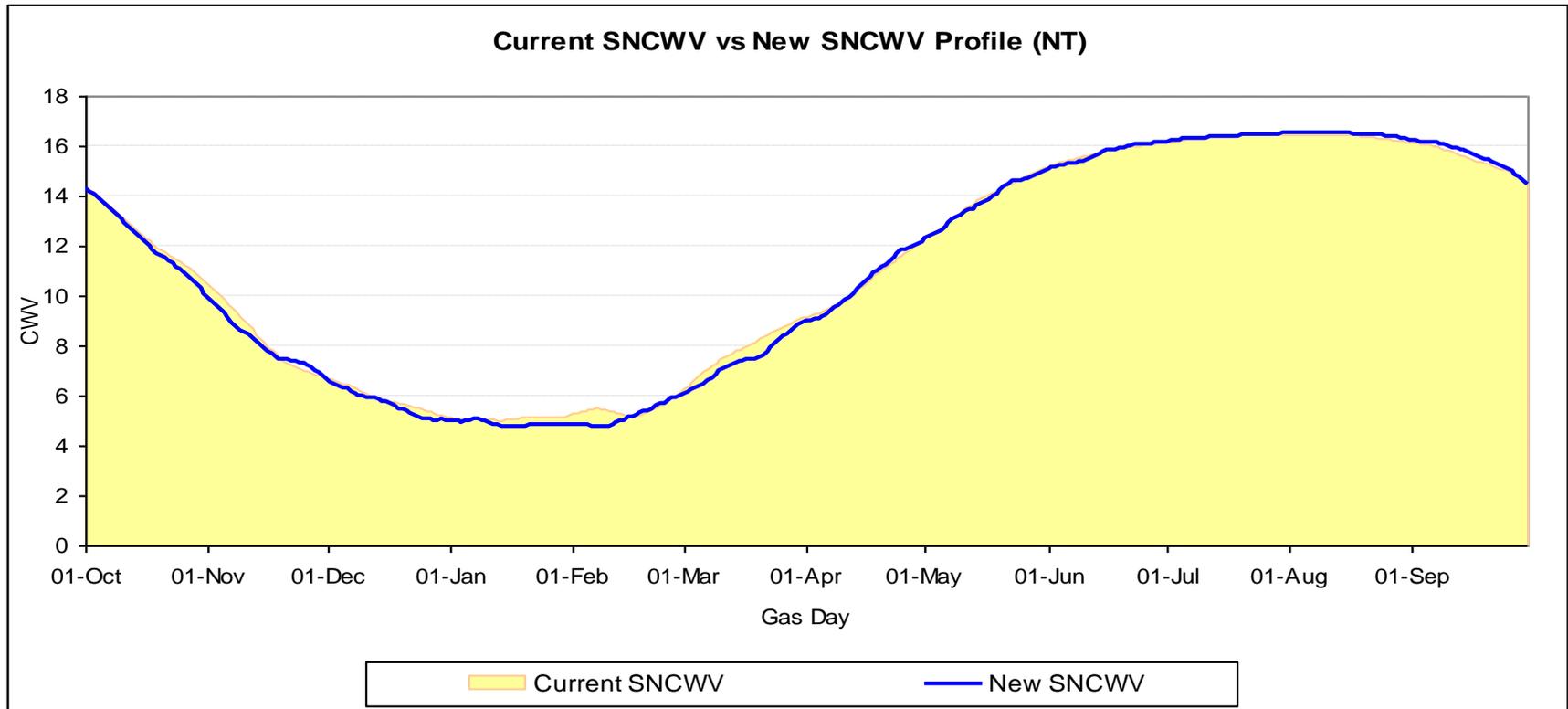
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- **London Heathrow** weather station (**03772**) used for **NT** calculations
- Source data used for increment calculations:
 - Temperature_03772_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03772_adjhist.txt
 - Windspeed_03772_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 0 records
 - Windspeed 0 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: NT LDZ – SNCWV profile comparison

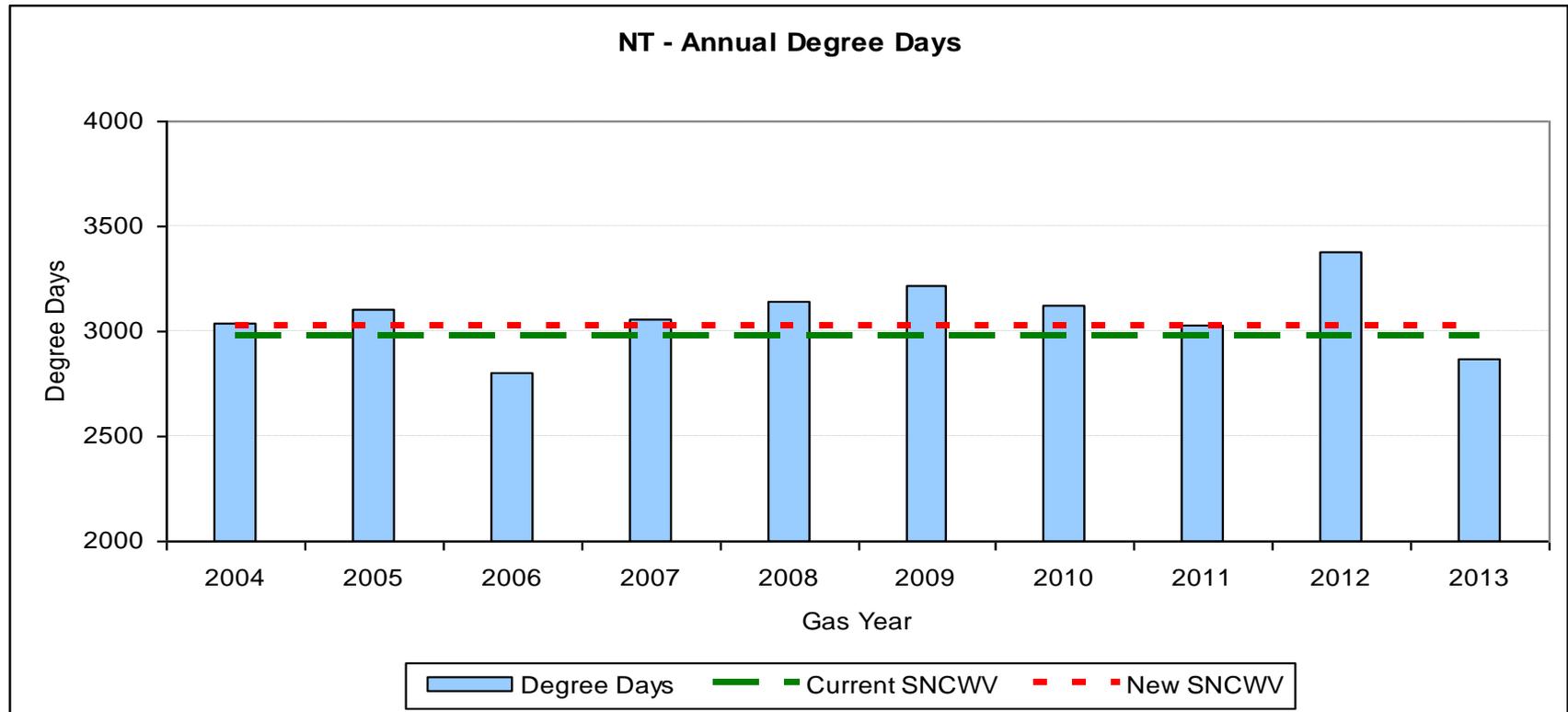


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Results 2: NT LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: NT LDZ – % Change in SNCWV basis

DD Threshold	19.3	
Overall % change from current SNCWV		
Annual	1.6%	Colder
Dec to Feb	1.6%	Colder
Mar to May	2.4%	Colder
Jun to Aug	-0.3%	Warmer
Sep to Nov	1.3%	Colder

- New SNWCV approx 2% colder than current basis
- 3 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for SE

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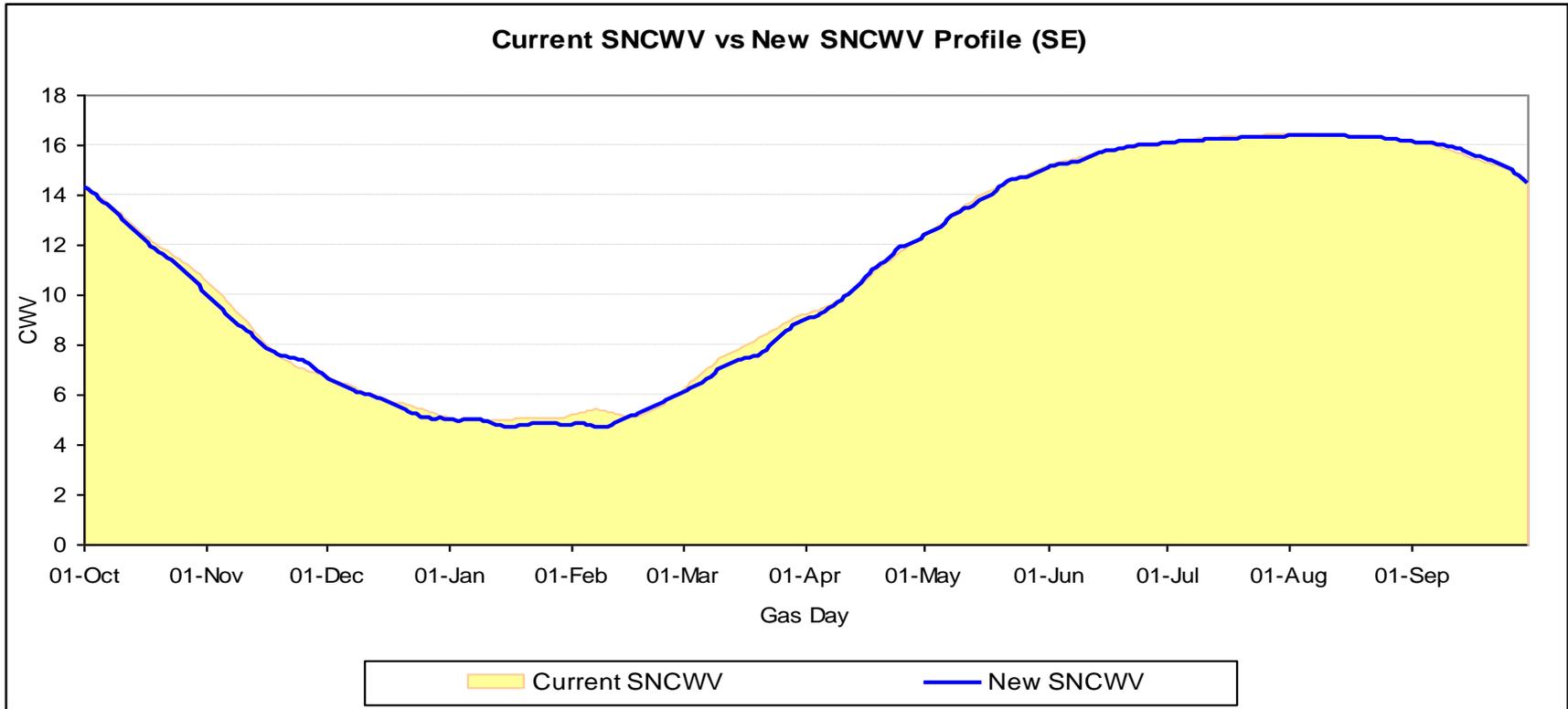
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- **London Heathrow** weather station (**03772**) used for **SE** calculations
- Source data used for increment calculations:
 - Temperature_03772_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03772_adjhist.txt
 - Windspeed_03772_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 0 records
 - Windspeed 0 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: SE LDZ – SNCWV profile comparison

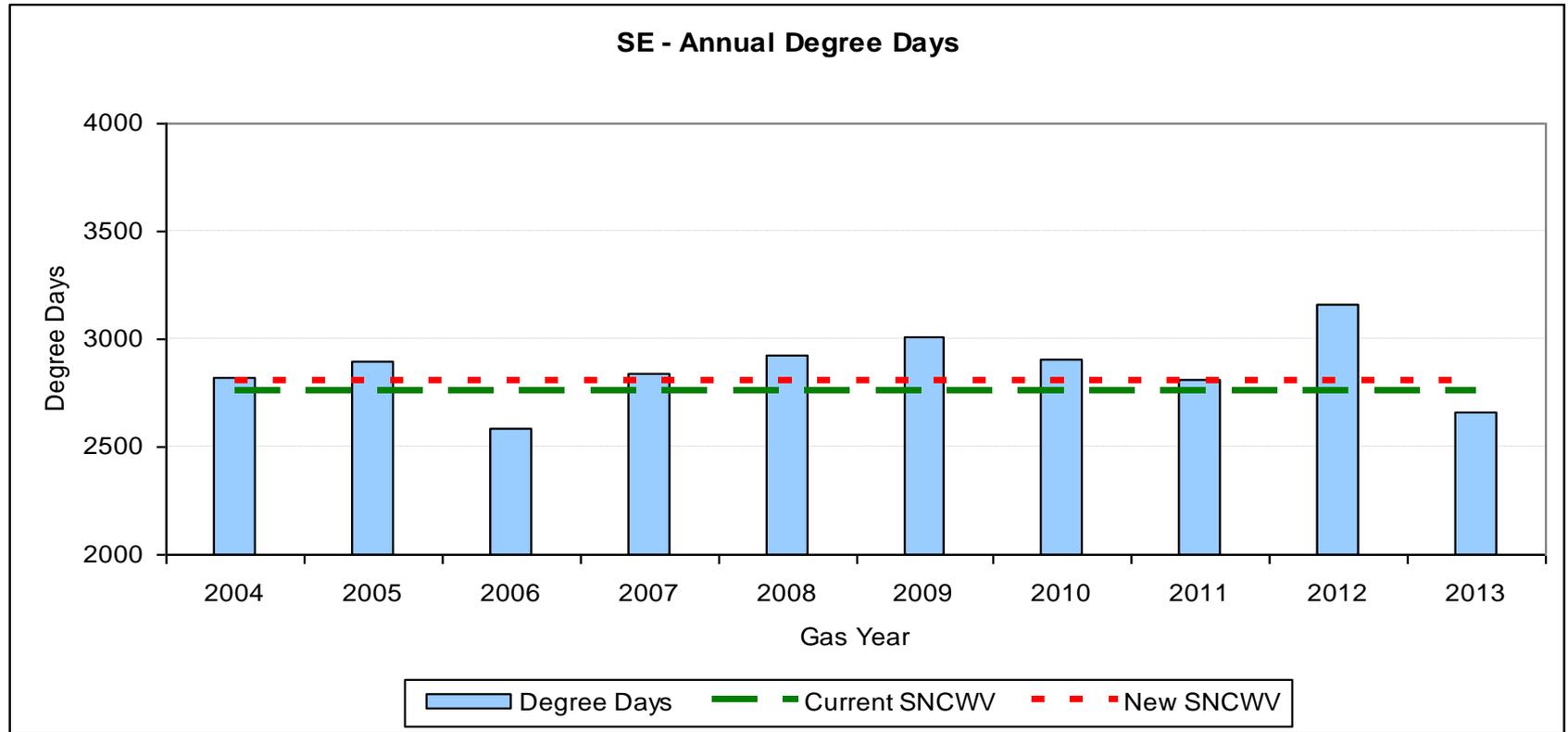


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Results 2: SE LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: SE LDZ – % Change in SNCWV basis

DD Threshold	18.7	
Overall % change from current SNCWV		
Annual	1.9%	Colder
Dec to Feb	1.5%	Colder
Mar to May	2.7%	Colder
Jun to Aug	2.8%	Colder
Sep to Nov	1.5%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for SO

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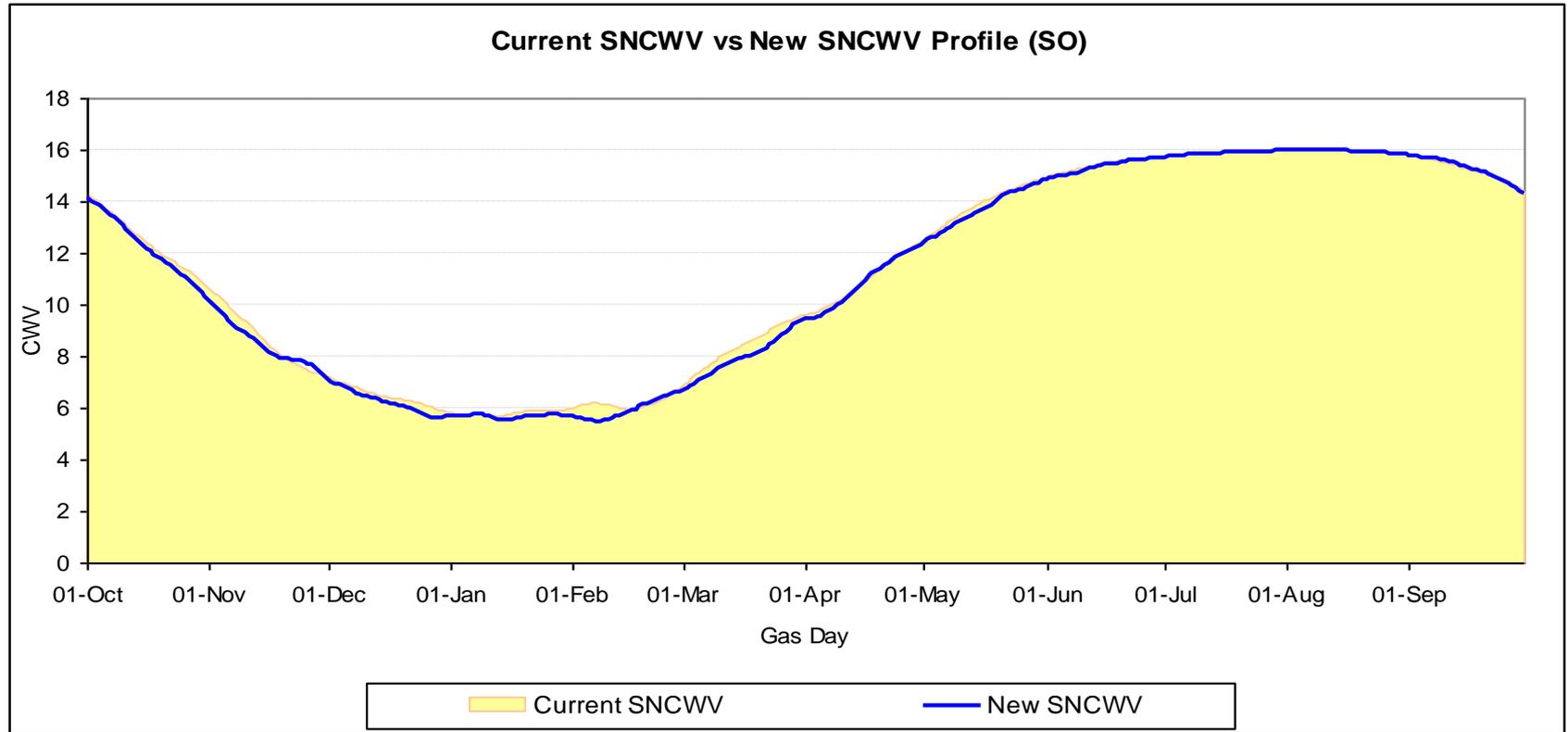
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- **Southampton Oceanographic Institute** weather station (**99079**) used for **SO** calculations
- Source data used for increment calculations:
 - Temperature_99079_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_99079_adjhist.txt and Windspeed_99079_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 17,542 records – Large gaps between 1968 and 1970, however 3 hourly reads still present
 - Windspeed 3 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: SO LDZ – SNCWV profile comparison

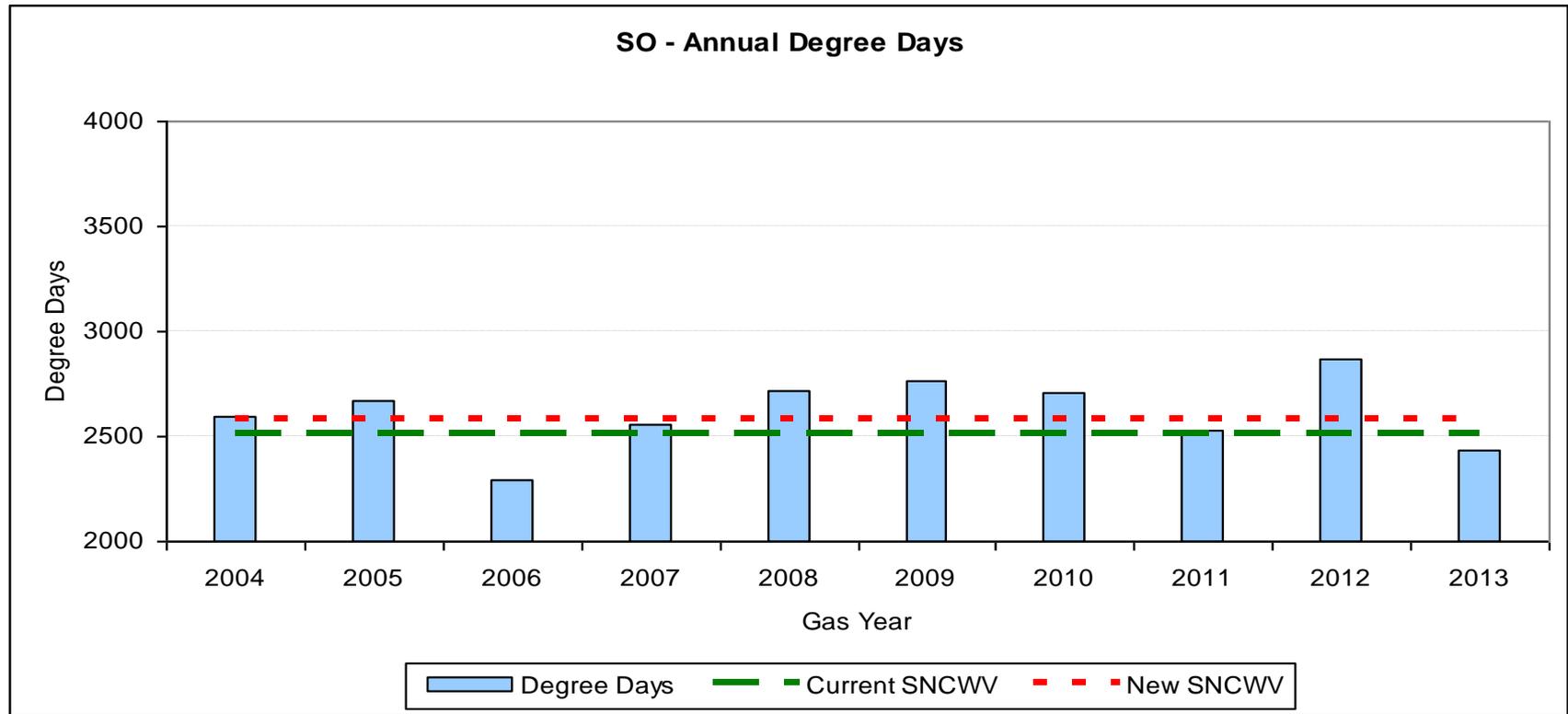


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Results 2: SO LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: SO LDZ – % Change in SNCWV basis

DD Threshold	18.2	
Overall % change from current SNCWV		
Annual	2.4%	Colder
Dec to Feb	1.8%	Colder
Mar to May	3.7%	Colder
Jun to Aug	2.5%	Colder
Sep to Nov	2.2%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Seasonal Normal Composite Weather Variable (SNCWV) for SW

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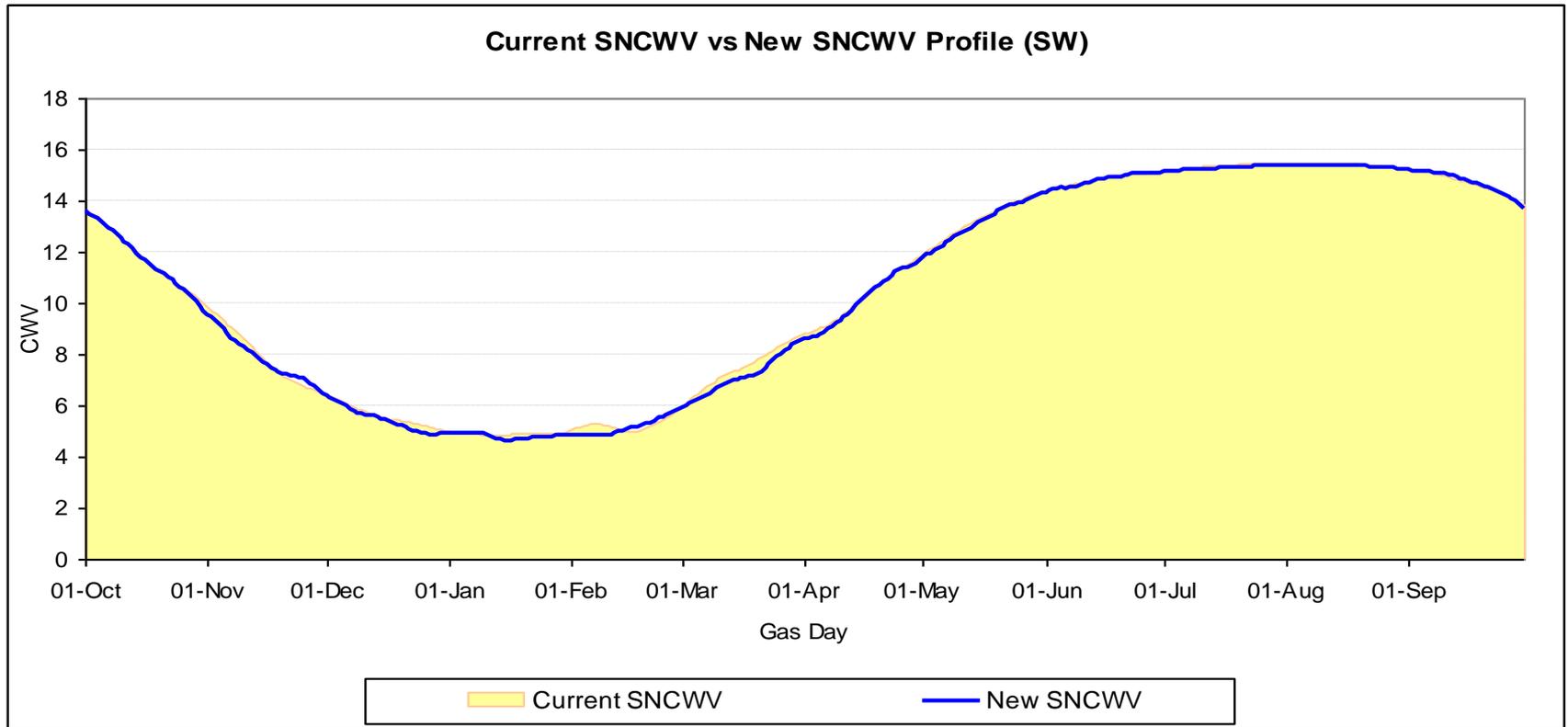
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- **Filton** weather station (**03628**) used for **SW** calculations
- Source data used for increment calculations:
 - Temperature_03628_increment_2012_2025.txt
- Source data used for representing historical data series:
 - Temperature_03628_adjhist.txt
 - Windspeed_03628_adjhist.txt
 - Agreed in-filling methodology used for gaps in data series – in-filled data to be published on UK Link Docs asap
 - Temperature 30 records
 - Windspeed 4 records
- CWVs calculated using above data and TWG approved CWV parameters and Pseudo SNETs

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Results 1: SW LDZ – SNCWV profile comparison

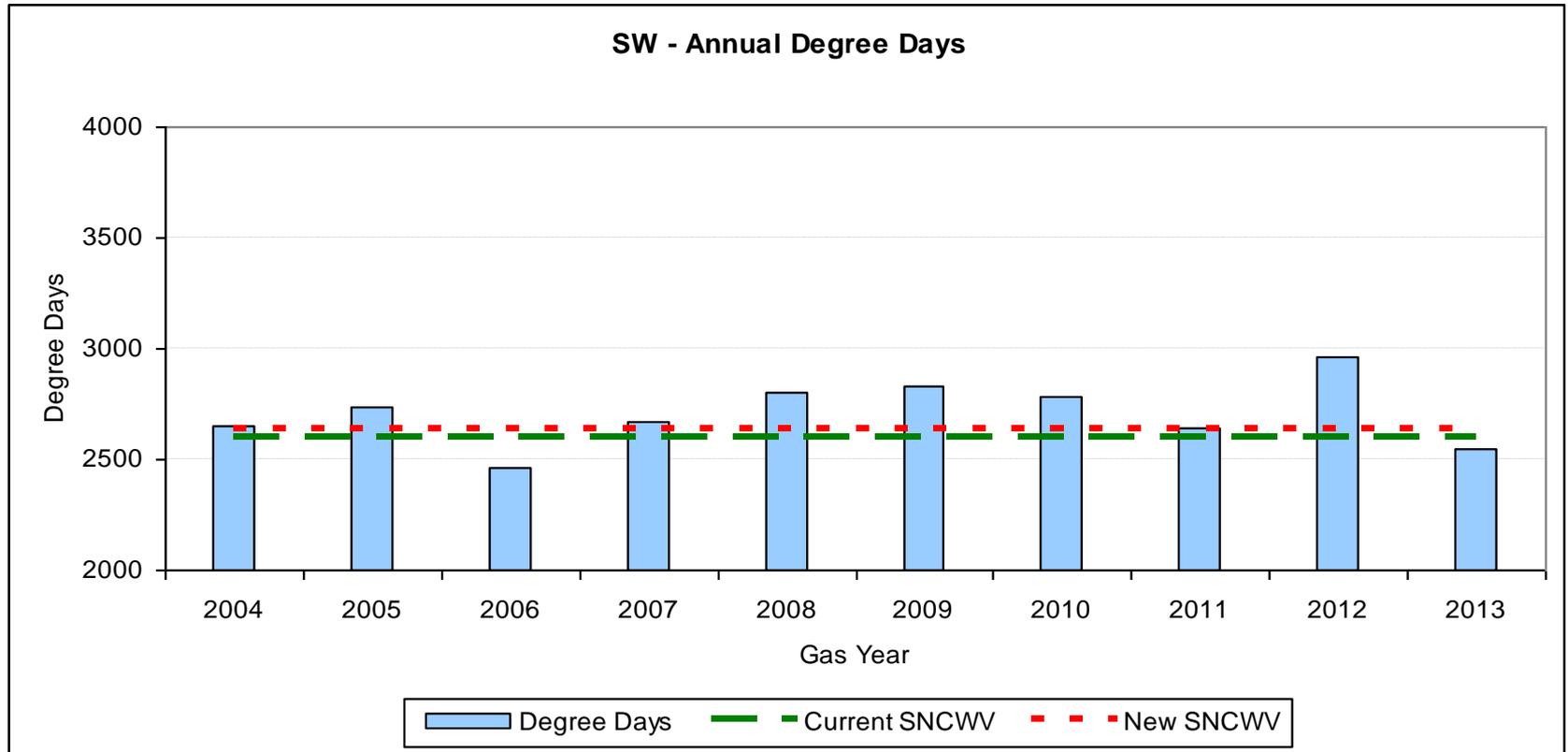


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Results 2: SW LDZ – Degree Day Analysis



- Low bars = Warmer weather; High bars = Colder weather
- 2 years in last 10 have been warmer than current Seasonal Normal

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Results 3: SW LDZ – % Change in SNCWV basis

DD Threshold	17.7	
Overall % change from current SNCWV		
Annual	1.6%	Colder
Dec to Feb	1.0%	Colder
Mar to May	2.9%	Colder
Jun to Aug	3.0%	Colder
Sep to Nov	0.6%	Colder

- New SNWCV approx 2% colder than current basis
- 4 quarters for new SNCWV are colder than current basis

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Seasonal Normal Review

Summary

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New Seasonal Normal Basis Profiles

- Majority of LDZs show a clear difference in February where the new profiles become cooler, possibly linked to the meteorological phenomena known as the Buchan spell
- The new SNCWV profiles are all cooler (and for the majority of quarters) than the current seasonal normal basis suggesting the existing basis may have been too warm
- Coldest days of profiles now in third week of January for most LDZs (SE and SO it is in early February). This has changed from current basis where coldest days were mainly in the first two weeks of the year
- Shape of EUC ALP profiles will be different especially where the SNCWV profile has changed significantly from the current seasonal normal shape

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Overall % change by LDZ

LDZCODE	AggThresh	% change from current SN basis
SC	16.9	2.6%
NO	16.6	0.1%
NW	18.3	10.7%
NE	18.4	2.2%
EM	17.5	3.1%
WM	17.4	2.3%
WN	18.3	10.7%
WS	18.2	1.6%
EA	18.9	1.8%
NT	19.3	1.6%
SE	18.7	1.9%
SO	18.2	2.4%
SW	17.7	1.6%
Avge		3.3%
Avge (less NW/WN)		1.9%

- Averages provided excl. NW/WN figures
- Note: The change in weather station for NW/WN has impacted their results i.e. location of new station being more rural (and therefore cooler)

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Overall % change by Quarter by LDZ

LDZCODE	Dec to Feb	Mar to May	Jun to Aug	Sep to Nov
SC	1.4%	3.1%	8.0%	2.0%
NO	0.3%	0.9%	-2.4%	-0.4%
NW	7.5%	11.3%	26.4%	10.7%
NE	0.8%	3.9%	6.0%	1.5%
EM	1.6%	4.4%	10.4%	1.9%
WM	0.6%	2.7%	7.3%	3.2%
WN	7.5%	11.3%	26.4%	10.7%
WS	0.9%	2.2%	2.3%	2.2%
EA	1.8%	2.7%	0.9%	1.1%
NT	1.6%	2.4%	-0.3%	1.3%
SE	1.5%	2.7%	2.8%	1.5%
SO	1.8%	3.7%	2.5%	2.2%
SW	1.0%	2.9%	3.0%	0.6%
Avge	2.2%	4.2%	7.2%	3.0%
Avge (less NW/WN)	1.2%	2.9%	3.7%	1.6%

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Extent of change in Seasonal Normal Basis (AQ)

- Overall % cooling is approx 2% nationally
- Annual aggregate NDM AQ changes have been:
 - 2.5% (reduction) in 2014/15
 - 0.7% (reduction) in 2013/14
 - 5.8% (reduction) in 2012/13
 - 1.0% (reduction) in 2011/12
- The past 4 years has seen an average reduction of 2.5% in aggregate NDM AQ. This effect is as a result of general demand reduction. Irrespective of the seasonal normal basis change, it is not unreasonable to assume a further reduction in 2015/16 (statistics suggest this could be 2.5%)
- Overall, therefore, the above suggests minimal change in the overall NDMAQ levels in 2015/16

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Extent of change in Seasonal Normal Basis (SOQ)

- At the last Seasonal Normal review (performed in 2009), the new AQs (effective from 2010) reduced by approx 9%, part related to change in Seasonal Normal basis and part related to demand reduction
- The SOQs, however, only moved by the % related to demand reduction because the Load Factors flexed to effectively 'cancel out' the % reduction in Seasonal Normal terms. The weather history in 2009 was also consistent with previous reviews
- This time round there has been a complete update to the weather history used in the demand estimation process. The 1 in 20 peak demand simulations, which are a key input to the Load Factor calculations, will be compiled using:
 - a) a new weather history (WSSM)
 - b) a reduced period of weather (54 years [1960-] instead of 84 years [1928-])
- Due to this change in data it is not possible at this stage to assess the likely changes in SOQ levels until the 1 in 20 peak demand simulations are run. This output will become available during Spring 2015

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Seasonal Normal Review

Next Steps

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Next Steps 2014: Industry Consultation

- At today's DESC meeting, members to consider TWG recommendation for revised SNCWV values and provide approval for their use from 1st October 2015
- Communication to be issued after DESC welcoming wider industry comments during w/c 8th December '14 with comments to be received no later than 12th December '14
- UNC (H1.5.3) states "*where the seasonal normal values of the Composite Weather Variable are revised, the relevant Sub-committee (DESC) will provide to Users the revised values*".
- Xoserve have satisfied this requirement by publishing the SNCWVs on the secure area of Xoserve's website (UK Link Docs) which all Users are able to access
- DESC T.Con scheduled for 17th December '14 to discuss any comments received and finalise the SNCWVs for use in AQ calculations and Demand Estimation modelling

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- Work to be done in **Jan/Feb/Mar 2015:**
 - Spring 2014 NDM analysis reworked using new CWVs and SNCWVs
 - Additionally do back-runs of individual years' EUC models using new CWVs and SNCWVs required for spring 2015 NDM analysis
 - Produce revised WAALPs for all EUCs from 01/10/2011 onwards using new CWVs and SNCWVs – required for 2015 AQ review
 - Produce AQ factors for each EUC (applied when Aqs fail to calculate for 2015)
- Work to be done in **Apr/May/June 2015:**
 - Spring 2015 NDM analysis (using new CWVs and SNCWVs)
 - Continue with off-line production of revised WAALPs

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