

UNC Modification Reference Number 0167  
Review of NDM Profile Allocation Parameters  
6/12/2007

Amend SND

**Introduction**

The following presents a high level review of recent work carried out by the Met office on behalf of the Gas Industry. It can be used to contribute to or direct overall discussion around proposal 0176.

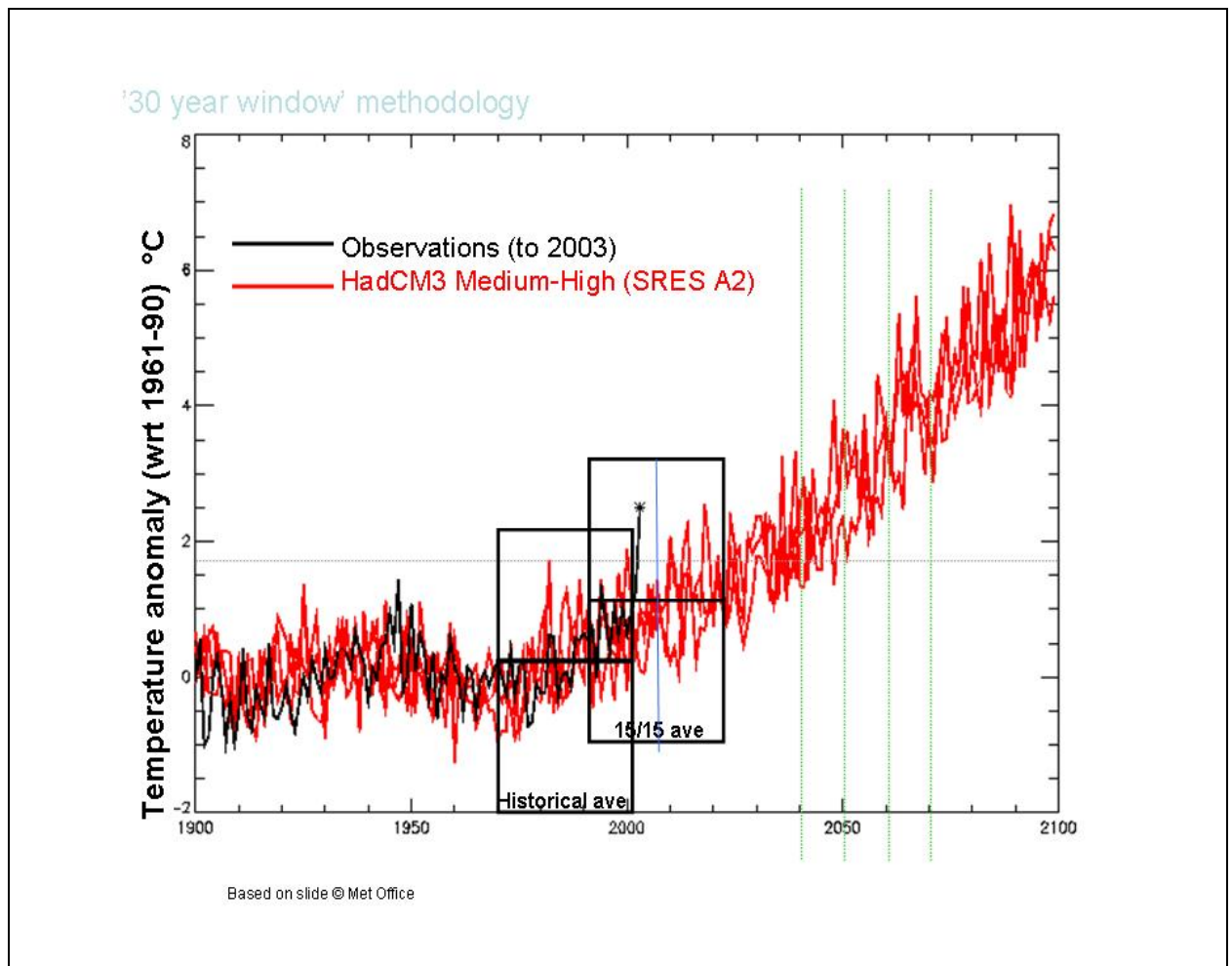
**Background:**

There was concern expressed at the last revision of the Seasonal Normal basis and demand that no significant climatological change had been identified around the start of the proposed new seasonal normal basis. The intention however was for this basis to not provide any new insight on climate change and to reflect more recent weather experience.

The charts below are derived from the climate change study, Work Package 8, carried out by the Hadley Centre (Met Office) on behalf of the energy industry. The basic methodology is based on a 30 year average with 15 years historical and 15 years forecast (NB: although the methodology uses average temperature it is adaptable to using average degree days).

The view in chart 1 below uses a forecast with an upward trend, an historical view is also provided. If we continue to use just this historical view (to continue to be in line with recent weather experience) as opposed to the half historical and half forecast view, the seasonal normal basis will be effectively out of line with what is currently being forecast. Here this difference is about 1 degree which would equate to roughly a 5% change in demand. Based on the current 17 years this would be less, around 3% if applying the aforementioned degree/therm change rule.

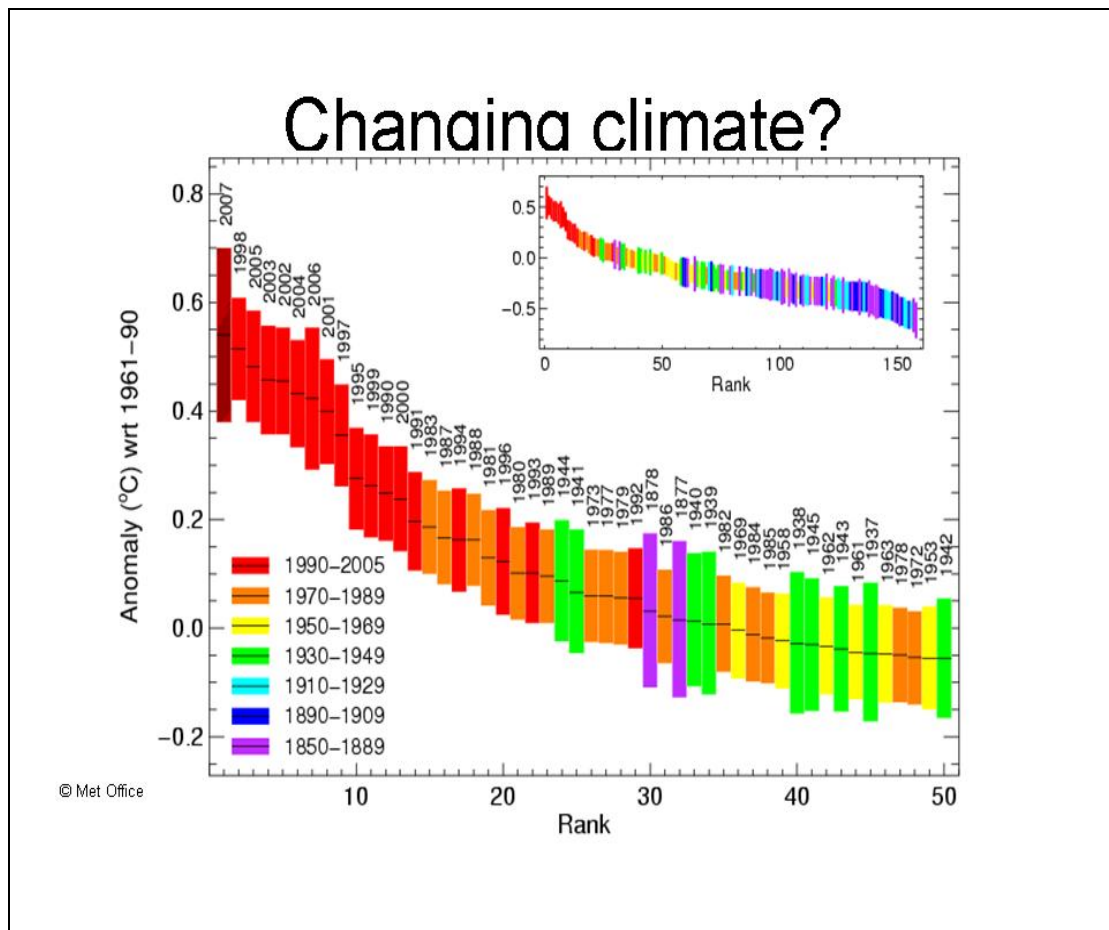
Chart 1 – 30 Year Methodology – Central England Example\*.



*\*The above is based on central England however the Hadley Centre are producing views for all individual Gas weather stations.*

The below chart shows decades of years that are assigned colours and the years are rank by temperature. All recent years tend to be red colours with later years tending towards blues/purples.

Chart 2 – Temperature Trend



The above analysis clearly suggests that weather is not stationary and that we can no longer or shouldn't just use past values. It is advisable to therefore take into account the future trend of temperatures as they no longer fluctuate around a stationary mean.

In terms of the review proposal it may be a case that rather than replacing the use of SND we assess its appropriateness when revised or adjusted for climate change, effectively revising the seasonal normal weather basis. To continue to ignore this and therefore climate change in favour of relative weather stability year to year is ignoring reality.