Action DE1074: Response to E.On Scaling Factor Query – November '09 DESC

Observations :

The periods investigated for LDZs NW and WM cover the dates 26th to 31st October, 18th to 21st November and 18th to 24th December. These are referred to as sub-periods below.

The October and November sub-periods were days of exceptionally warm weather. Both of which were quite uncharacteristic for the times of year.

The main reason that SF appear to have gone down slightly in the October sub-period and gone down even less so in the November sub-period is the same for each of these sub periods.

For both NW and WM, in the October sub-period NDM demand was significantly depressed during this sub period. This was the half term weekend as well as being unusually warm. The 3 or 4 days leading up to this sub-period saw CWVs begin to rise above seasonal normal and during the sub period they were well above seasonal normal.

The depressed aggregate NDM demand acts on WCF (decreasing it) and that in turn tends to drive SF upwards to compensate (because the denominaotor of SF reduced by the lower WCF), but SF is directly impacted by aggregate NDM demand as well and depressed actual aggregate NDM demand would decrease SF. During this October period the direct effect on SF was the predominant one.

For both NW and WM, in the November sub-period NDM demand was significantly depressed during this sub period. The days of this sub-period were the warmest days right in the middle of an extended period during November of very warm weather (for the time of year). Again, aggregate NDM demand was at its most depressed during this sub-period (in these two LDZs). Again WCF was strongly depressed, tending to inflate SF but the depressed aggregate NDM also directly acted on SF to depress it and it was this effect that was the greater, resulting in the decline in SFs observed. However, the decline in SFs is very small compared to the average over the month (0.8% and 0.5% respectively).

The December sub-period is from just before and partly into the defined Christmas holiday period. This was the start of the much colder weather that we have experienced since right up to the present. Here we had strongly inflated aggregate NDM demands in these two LDZs in response to the cold weather (in other words the demand was greater than could be explained by the prevailing weather alone). So, that gave inflated WCF values which in turn tended to decrease the SF, but the inflated aggregate NDM demand acted directly on SF as well to inflate its value. The two opposing effects led to a very small increase in SF from the levels over the month as a whole. The sub-period saw increases in SF of 0.5% and 0.2% respectively.

Further Supporting Information

The reason all LDZs do not show the same Scaling Factor behaviour is:

1. The weather experience may be different in different LDZs (not necessarily strongly so for the October and November examples, some differences in December)

2. The reason for the perturbation is not weather related demand behaviour. In other words demand behaviour not explained (and not amenable to explanation) with a weather-demand model – there is no reason for such behaviour to be consistent in all LDZs. Aggregate NDM demand having been lower or higher than expected for the weather that prevailed is not necessarily something that would be consistently exhibited in all LDZs at the same time.

3. The main reason for different LDZs not showing the same degree of effect on the same dates is that the two opposing effects of (1) aggregate NDM demand (too low or too high) affecting WCF which then perturbs SF to go higher or lower and (2) aggregate NDM demand directly affecting SF (to go lower or higher) tend to achieve an approximate balance or does not achieve such a balance to different extents in different LDZs (when such additional non weather demand effects occur).

Appendix 13 of the NDM report and the WCF/SF presentation each November to DESC sets out a description of several examples of this opposing effect on SF in operation sometimes achieving balance and sometimes not. Effects such as these are easy to explain after the event but not so easy to detect before they occur.

4. A further reason for the different SF results relates to the AQs in each LDZ. As AQ calculations are backward looking they are never precisely correct for present circumstances. Thus the allocation process will be affected by this NDM EUC AQ error. The 'level' of error in each LDZ will be different – as seen each year in the levels of NDM AQ change at the start of each gas year