

Dear Colleague,

Firstly, thank you for attending the DESC meeting last week to discuss and confirm the holiday periods DESC wish to investigate in more detail this Autumn.

During the meeting there were various questions requesting additional analysis to be carried out when assessing proposed holiday periods and codes. xoserve agreed to confirm to DESC in writing what would be possible for this Autumn.

Please find below our summary of how the analysis will be done and the periods to be investigated:

Christmas Start and End Date Periods (Action DE0901)

DESC focused on the Christmas period with the following set of Christmas start and end dates to be investigated -

- Period 1 - Existing - Starting on 21st December and ending on the second Scotland bank holiday
- Period 2 - Starting on the Monday before 25th December (but if 25th December falls on a Monday, Tuesday or Wednesday then period starts on the Friday before 25th December) and ending on the second Scotland New Year bank holiday
- Period 3 - Starting on the Monday before 25th December (but if 25th December falls on a Monday, Tuesday or Wednesday then period starts on the Friday before 25th December) and ending on the UK New Year bank holiday
- Period 4 - Starting on 21st December and ending on the first Friday on or after the second Scotland New Year bank holiday
- Period 5 - Starting on the Monday before 25th December (but if 25th December falls on a Monday, Tuesday or Wednesday then period starts on the Friday before 25th December) and ending on the first Friday on or after the second Scotland New Year bank holiday

Using the methodology set out at DESC (based on existing EUC models) we will seek to identify at least two promising periods out of the above.

Christmas Holiday Codes:

Once the possibilities have been narrowed down to at least two promising periods, we will look for at least two good allocations of holiday codes for each period. Where appropriate we will examine the following allocation of holiday codes (Action DE0903):

- Holiday Code 1 - Christmas Day
- Holiday Code 2 - All other bank holidays (including second Scotland New Year bank holiday)
- Holiday Code 3 - Christmas Eve and other days in period between Christmas and New Year
- Holiday Code 4 - Other days in the period (pre Christmas)
- Holiday Code 5 - Other days in the period (post New Year)

We will also consider a separate code for the second Scotland bank holiday (Action DE0902).

For the short listed periods we will run the EUC modelling system for the 02B EUCs for the four individual gas years and compare the root-mean-squared errors (RMSE) for the current combination of period and holiday codes and all the promising combinations for each of the four years.

On the basis of the evidence above we will select a preferred option but will also provide details of the promising alternatives for DESC to choose from - the RMSE analysis will help inform DESC make a decision.

Points to Note:

- We believe that the proportion of non-domestic EUCs with large negative or positive residuals, or large negative residuals from the Monday to Thursday level, together with day of week and bank holiday data does provide a reasonable indication of current holiday days that should not be holidays and current non-holiday days that should be holidays. However, we will use the 02B EUCs data to illustrate the effect of any suggested changes.
- For the 02B analysis we will report on the original holiday factors - whether lower or greater than one (Action DE0904)
- The process for calculating holiday factors is to compare actual demands to the fitted demand from a sound Monday to Thursday regression model, whilst we acknowledge DESCs request to include holidays in the Monday to Thursday regressions, this results in models with lower R squared values and so we believe it is more appropriate to use a Monday to Thursday model excluding holidays and the existing holiday periods provide a reasonable starting point.
- To help inform the analysis Simon Geen will provide some analysis based on the residuals from a Monday to Thursday aggregate NDM model

Review of Domestic 01B EUCs

EUC modelling will be carried out using the holiday codes from the preferred option of holiday periods and codes described above but with holidays excluded from the regression to check whether consistently positive holiday factors result.

The above summarises the scope and approach to be taken during the Autumn analysis which we believe deals with all of the actions raised at DESC.

If there are any questions or clarifications required please can I ask you to respond before the end of September as the analysis will need to commence on 1st October in time for the November DESC meeting.

Regards,

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