

## Proposed NDM Algorithms for 2012/13 – National Grid Transmission Comments

Dear all,

Given that holiday effects have been an issue in previous consultations on the NDM proposals, and that DESC has revisited the definition of holiday codes in the past year, I have had a brief look at how the revised set of holiday codes have performed. I have looked at a random sample of 30 consumption band EUCs (excluding band 1 where holiday reductions do not apply) in some detail.

It is worth noting that the holiday multipliers arise from the NDM sample data, so we cannot force the holiday multipliers to conform to any particular pattern.

However, there are certain expectations that I expect DESC members have had when selecting which holiday codes apply to each day. Within any particular holiday period, we would expect in most cases that holiday multipliers increase with increasing holiday code. For example, for the Christmas/New Year period, we would expect in most cases the holiday multiplier for code 1 (25<sup>th</sup> December) to be less than that for code 2 (26<sup>th</sup> December, January 1<sup>st</sup> and any remaining bank holidays (except second Scotland New Year bank holiday) and any other Saturdays and Sundays in the period) etc. However, there is one understandable exception for aggregations including Scotland, where the holiday multiplier for code 5 (that includes the second Scotland New Year bank holiday) could be lower than that for code 4. Another expectation is that the holiday multiplier would in most cases be less than one, so there is some reduction.

I looked at 30 consumption band EUCs over the 6 holiday periods (covering holiday codes 1 to 15), giving 180 cases in total.

The results are good.

**93.3% (168 out of 180) of the cases conformed exactly to the expectations above.**

**For the May Day (codes 9 and 10), General Summer (codes 13 and 14) and August (codes 15 and 16) holiday periods 100% of the cases conformed exactly to the expectations.**

**Exceptions for the Christmas/New Year holiday period (codes 1 to 5):**

13.3% (4 out of 30) of these cases had the holiday multiplier for holiday code 3 (Mondays to Fridays between 24<sup>th</sup> December and day before second Scotland New Year bank holiday inclusive not covered by preceding holiday codes) is less than that for holiday code 2 (26<sup>th</sup> December, January 1<sup>st</sup> and any remaining bank holidays (except second Scotland New Year bank holiday and any other Saturdays and Sundays in the period)). The EUCs are NE LDZ band 8, EM LDZ band 9, EM LDZ band 8 and WS LDZ band 9. These cases are all from the top two large NDM consumption bands.

3.3% of these cases had the holiday multiplier for code 5 (days in holiday period not covered by preceding holiday codes, which always includes the second Scotland bank holiday) less than that for holiday code 4 (days before 24<sup>th</sup> December not covered by preceding holiday codes). (Where the data aggregation includes Scotland, I have not counted this as an exception for the reason above.) The EUC is NT LDZ band 6.

**Exceptions for the Easter holiday period (codes 6 to 8):**

16.7% of these cases had the holiday multiplier for code 8 (days in holiday period not covered by preceding holiday codes) equal to 1.000 (i.e. no reduction). The EUCs are EA LDZ band 5, NT LDZ band 6, SC LDZ band 2, SC LDZ band 4 and SO LDZ band 5.

3.3% of these cases had the holiday multiplier for code 8 less than that for code 7 (Good Friday and Easter Monday). The EUC is NE LDZ band 2.

**Exceptions for the Spring Bank holiday period (codes 11 and 12):**

## Proposed NDM Algorithms for 2012/13 – National Grid Transmission Comments

3.3% of these cases had the holiday multiplier for code 12 (days in the holiday period not covered by preceding holiday codes) equal to 1.000 (i.e. no reduction). The EUC is SC LDZ band 2.

My view is that this shows the holiday codes are now pretty good, given that the holiday reductions are calculated from the NDM sample data.

Regards,

Paul  
Paul Tuxworth  
Operational Research Specialist  
Future Transmission Networks  
UK Transmission  
National Grid