

Appendix 1. National Grid covering note to accompany the publication of our revised appendix detailing forecast Incentivised Balancing Costs for Great Britain in 2006/07

On 9th December 2005 we wrote to Ofgem formally withdrawing our BSIS 2006/7 forecast of £421.7m. This note is to accompany the publication of our revised appendix detailing forecast balancing costs for 2006/07 (attached as an Appendix). Within this revised forecast we present the results of forecast analysis updated to include more recent trends in gas/power markets and balancing activity seen during October – December 2005.

This work has led to the submission of a revised forecast of £451.4m. This note gives further explanation as to the results of our analysis and the differences between our original forecast of £421.7m and our revised forecast of £451.4m. A full breakdown of this revised forecast for 2006/07 and a comparison to the revised 2005/06 figure is given in the attached appendix.

The request for an extension of time until 6th January 2006 was to undertake further modelling relating to observed behaviour in the market and the affects on our balancing activity, in particular the high balancing costs incurred, since the preparation of our original forecast in late summer 2005.

This observed behaviour relates to new experience, gained since the development of the original forecast, under two previously unseen conditions. These are:

- Winter operation under BETTA
- Winter operation under tighter gas supply market conditions

The additional time to reforecast has allowed us to feed into the revised forecast new understanding and data relating to market behaviour and drivers based on recent historic data for this winter. These data, observations and operational experience were not available to us at the time of the preparation of the original forecast. We considered this revised analysis particularly necessary given the large increase in balancing costs seen over October – December 2005 and increase in forecast balancing costs for the period to end-March 2006. These costs were seen despite experiencing only average or typical weather and plant availability.

In particular, we wanted to examine the affect the following observations had on our original forecast assumptions:

1. The increases and sustained high levels of gas and power price, and increased volatility, seen across the recent period in spot prices and forward prices for winter 2005/06 and 2006/07.
2. The manner in which a background of average weather conditions, including normal variations in weather such as the short colder spell in November, has led to higher gas prices, power market prices and, in addition, volumes of balancing actions. This has resulted in a multiplicative affect on balancing costs in that, as the price and volume both increase, the costs increase quadratically. This is a repeat of a market behaviour previously seen only once during late February/March 2005 and, following November's repeat, has

led us to reassess whether, within its averaging, our model accurately reflects this quadratic effect on costs of a colder spell.

3. The greater than expected change in plant output that has resulted in a significant variance against forecast in the level of constraint costs incurred within different constraint areas/categories.

Having analysed the above data we would make the following points, below.

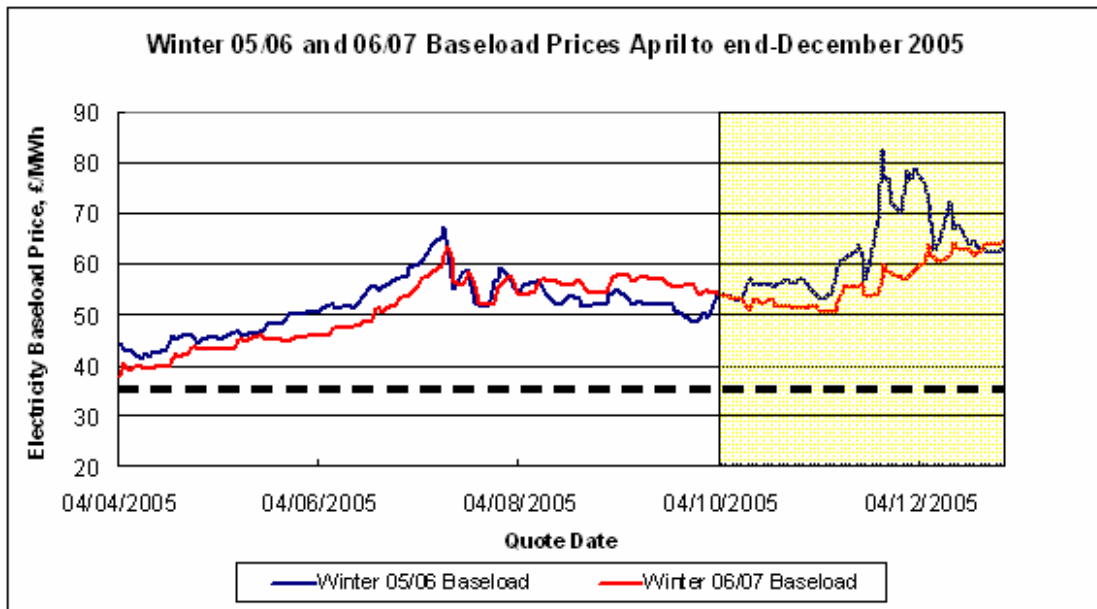
Analysis of new data for October – December 2005

As discussed above, this period provides our first insights into actual operational and commercial experience of:

- Winter operation under BETTA
- Winter operation under tighter gas supply market conditions

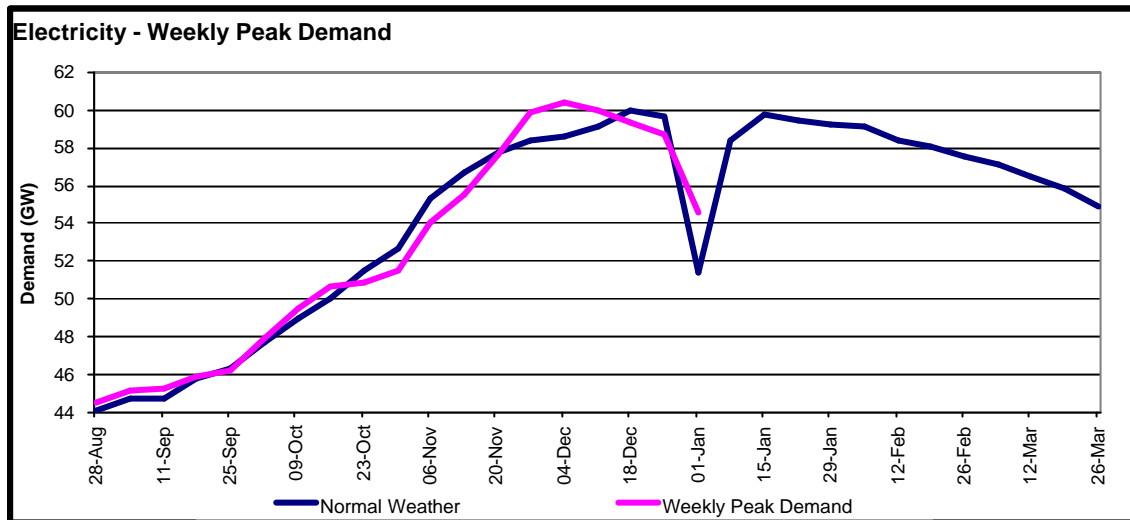
1. Gas and Power Prices

Higher forward winter gas and power prices seen across the late summer and autumn 2005 have been sustained through into winter 2005/06. In addition, since the submission of our original forecast, the range of prompt and forward prices seen for electricity and gas for 2005/06 has increased. To illustrate this, the evolution of electricity forward prices for winter 2005/06 and for winter 2006/07 since April 2005 is shown below. In particular, the highlighted area on the right shows new behaviour across the period October to December. The dashed horizontal line illustrates the winter forward price assumed at the time the BSIS 2005/06 target was agreed in early 2005.



2. Weather/Demand conditions

Weather and demand conditions have been average across the period October to December 2005. The graph below shows the variation of actual weekly peak demand and 'normal weather' peak demand since late August 2005.



Weekly peak demand will deviate from 'normal weather' demand when the weather varies from 'normal', i.e. if the weather is colder than normal levels then actual demand would rise above normal. The graph shows that we have seen a typical variation of demand around normal and that, as a whole, the weather conditions across October – December 2005 have been close to normal, or average.

The above conditions of sustained higher gas and power prices, against a background of average weather conditions, have led to a sustained period of higher-than-anticipated balancing costs for October 2005 onwards, particularly across November and December 2005. Following on from our observations and original reasons for withdrawal of the forecast, above, we would make the following points with respect to new information covering the period from October 2005 onwards:

1. The high balancing costs seen through October to December are the result of a number of variables, but a major driver has been the high gas and power prompt prices. These prices have fed through into a higher price being paid for balancing actions.
2. The sustained high prices seen are being driven by conditions in the gas market, feeding through into power prices. Overall, across October to December, both the seasonal mean and variation of weather conditions has been close to average. The conditions in the market have meant that price responses to variations in weather, particularly cold weather, were greater than previously seen.
3. Although one colder period was seen from mid- to end-November prompting a steep rise in prices, these high prices, particularly forward prices, have been largely sustained despite the fact that the weather has, overall, been close to average.

4. Whether as a result of high gas prices or otherwise, generation patterns have deviated from those expected and this has resulted in a major shift in the distribution of constraint costs. Previously we forecast significant constraint costs across the Cheviot boundary, including during the high flow conditions expected to be seen in conjunction with high winter demand levels. This circumstance has not evolved as expected and instead we have experienced lower levels of Cheviot cost but increased levels of constraint cost within Scotland as a result of a requirement to dispatch plant to secure the system.

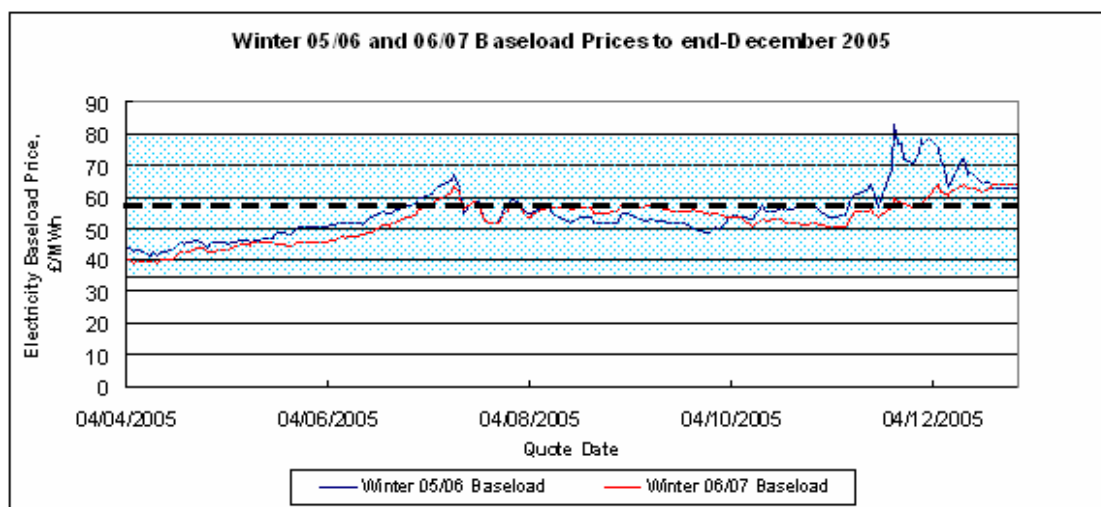
Revisions to the forecast assumptions for 2006/07

1. Reflecting changes to Gas and Power prices

New winter experience to date across October to December 2005, as discussed in previous sections above, has indicated that the market can sustain significantly higher forward prices and prompt prices despite an overall pattern of average conditions and typical variations in weather. This observation has resulted in the following changes our 2006/07 forecast:

- a) Revisions to gas and power price assumptions and associated BM price assumptions across three of the original scenarios within our 2006/07 forecast.
- b) The addition of an extra scenario, Scenario 7, to reflect our up-to-date view of possible prices across a colder than average winter

The graph below shows the forward prices for winters 2005/06 and 2006/07, and the range of prices assumed within our revised model. The range of scenario prices is indicated by the shaded area; the mean price across all forecast scenarios is shown by the dashed line. It can be seen that our scenario range covers the range of prices seen since April 2005, and indeed goes below this range. In addition, it can be seen that the mean price assumption sits close to price levels seen since July 2005 and below current prices for 2005/06 and 2006/07.



Note: Quoted 2005/06 prices are whole-winter prices (Q4 2005, Q1 2006) and, later, Q1 2006, as applicable. 2006/07 prices are for Q4 2006 and Q1 2007.

2. Modelling of tight gas market affects during colder spells

The affects of the sharp gas market price response observed during spells of colder, but still typical, weather is more complex to model within the averaging of our cost forecast model. This quadratic effect, resulting from tight gas market conditions, leads to sharper increases in balancing costs during spells of cold weather that occur within the normal variation of weather conditions. We have reflected the observed increased sensitivity of gas prices, and hence power prices, to weather drivers, within the revised scenario price assumptions illustrated above and described in the attached appendix. This is included within the adjustment of three of the original six scenarios and within Scenario 7.

3. Revisions to constraint forecast models

We have revised our Cheviot and within-Scotland constraint cost forecast on a scenario basis to account for operational experience gained this winter to date. This has resulted in a reduction in Cheviot export constraint volumes under certain scenarios as we anticipate greater reductions in gas generation output in Scotland under these conditions. By the same measure, we have significantly increased out within-Scotland constraint forecast in scenarios where we expect lower gas generation output in Scotland as we anticipate incurring greater costs under these conditions.

Revised forecast for 2006/07

Our revised forecast of balancing costs for 2006/07 is £451.4m. This is a £29.7m increase on the original forecast of £421.7m. The main items of change are:

- Revised parameter values for Gas and Power prices and associated BM prices.
- The addition of Scenario 7, to reflect the risk of a sustained period of high gas and power prices
- Changes to the distribution of generation and hence constraint costs

In cost terms, the above changes moving the forecast from £421.7m to £451.4m have, in the main, affected costs in the following areas:

- Incentivised Balancing Mechanism cost. Revisions to power price feed through in BM prices and a resultant increase in forecast Margin expenditure of £20m compared to our original forecast. Despite this increase relative to our original 2006/07 forecast within £421m, the revised total BM margin costs for next year are forecast to be below our revised forecast of BM margin costs for 2005/06 within our forecast of £395m.
- The increase in margin costs within £421m to £451m is partially offset by a reduction in total Energy Balancing (IEBC) resulting from the same revisions to forecast power prices. The change in IEBC is –£7m.
- Ancillary Services: A small increase of £3m in Reactive power (associated with indexation to Power Prices) relative to our original forecast. The only other change is a revision to Standing Reserve forecast costs based on submitted tender data received after the previous forecast. Based on these submitted prices, our forecast of Standing Reserve costs increases by £6m.

- Constraints: Redistribution of generation running and additions to constraint scenarios to reflect the variation in constraints seen on the system to date, result in an increase in average forecast constraint costs. Compared to our original forecast of £421m, this contributes an additional £8m to balancing costs for 2006/07. It should be noted that, relative to our revised forecast of £395m for 2005/06, the increase for 2006/07 is £5m, driven entirely by year-on-year increases in Cheviot constraint costs resulting from increased volumes of wind generation.