



Single Electricity Market

Loss of Load Probability Curve for Capacity Payment Mechanism - Addenda

AIP-SEM-07-41

2nd March 2007

On 13 February 2007 the Commission for Energy Regulation and the Northern Ireland Authority for Energy Regulation published a consultation paper entitled "*Loss of Load Probability Curve For Capacity Payment Mechanism*"¹. This addenda provides additional information to respondents.

Two graphs are presented on the next page, which show a possible distribution of Capacity Payments over the course of November (Graph 1) and December (Graph 2) 2007, based on the LOLP curve mechanism proposed in the consultation.

In the graphs, Capacity Payments made to Generator Units are shown in a time-sequence, with the three different monthly components shown separately. The Fixed component of the monthly payment is shown in blue, the Variable (Ex-ante) component is shown in pink, and the Ex-post component is shown in yellow.

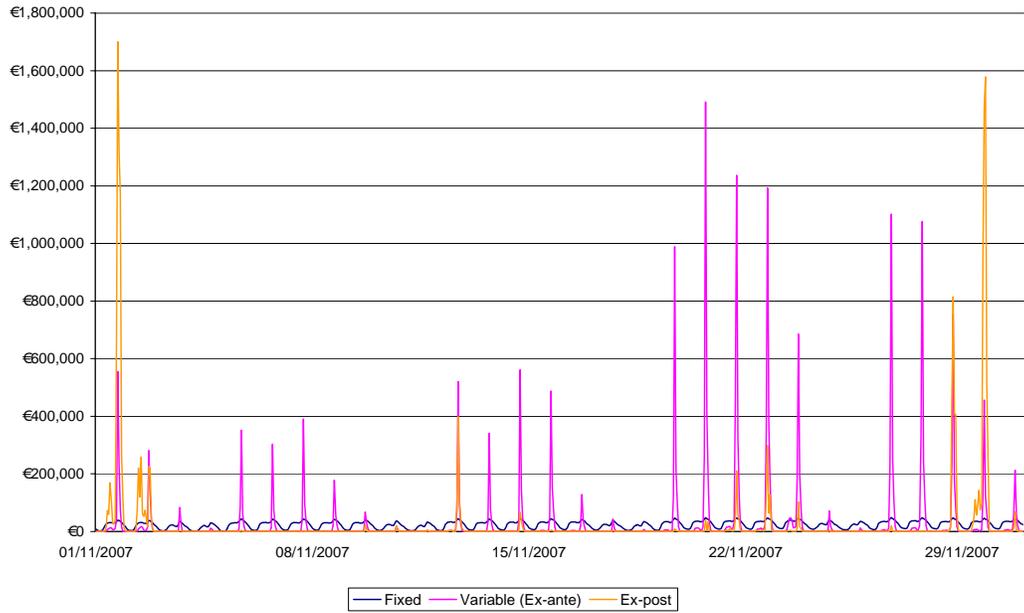
The time-sequences are indicative of how the three payment components could be distributed over the course of the two month period, under the following assumptions:

1. The LOLP curve has been calculated by the 'Stacking' methodology and is applied to both the Variable (Ex-ante) and Ex-post payment components.
2. No 'flattening' of the curve has been applied.
3. The demand forecast used to calculate the Fixed and Variable components is assumed to carry a standard error of 1.5%. This error is reflected in the differences between the Variable and Ex-post payment traces.
4. The pattern of wind generation is assumed to vary compared to the forecast. This variability has been incorporated in the model and the effect contributes to the difference in shape between the Variable and Ex-post components.
5. Fixed availability profiles were determined, with all units not on scheduled outage randomly set to be either available or on forced outage at each trading interval.

Because of the last three assumptions above, the traces represent a 'single case' of many possible availability / demand / wind scenarios and are in no way intended to show a precise predicted payment structure on a trading-interval basis.

¹ <http://www.allislandproject.org/2006/AIP-SEM-07-10.pdf>

Example CPM Allocations for Nov 2007, with Ex-post calculated using 1.5% Mean Load Forecast Error and typical Wind Uncertainty



Example CPM Allocations for Dec 2007, with Ex-post calculated using 1.5% Mean Load Forecast Error and typical Wind Uncertainty

