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Electricity Imbalance Pricing In France – Application of uplift (the "k" factor) to imbalance prices

Background

Imbalance prices in France and Great Britain are designed to reflect the costs incurred by the SO in resolving imbalances in some manner in each country.

Market parties must make a final declaration to the SO of their intended physical and contracted positions ahead of real time (one hour in GB, two hours in France). Each market party may also up to the hour or two hour ahead stage notify the SO of the quantities and prices which it is willing to deviate from its intended and notified physical position. Both markets have half-hourly trading periods.

The following table provides an overview of how the French Imbalance prices are calculated:

	System Short	System Long	System Balanced
Party Imbalance Short	AWPu * (1+k)	Powernext Spot Price at D-1	Powernext Spot Price at D-1
Party Imbalance Long	Powernext Spot Price at D-1	AWPd / (1+k)	Powernext Spot Price at D-1

The Upward Average Weighted Price (AWPu) is a volume weighted average of all the accepted Offers to increase energy on the system in that trading period. The Downward Average Weighted Price (AWPd) is a volume weighted average of all the accepted Offers[1] to decrease energy on the system in that trading period.

The "k" factor is an uplift that is applied to imbalance prices depending on the length of the system. For example, when the market is short AWPu is multiplied by the k factor, and when the market is long AWPd is multiplied by the k factor. The k factor may be revised by the French Regulator (CRE), and is currently set at 0.05.

The following table provides a history of the value of k since the start of the current French trading arrangements in April 2003:

Revision Date	K value
1st April 2003	0.20
1st July 2004	0.18
1st April 2005	0.15
1st July 2006	0.05

The "Balancing Operations-Imbalances" account is a management account to which the income and expenditure from party imbalances, reserve costs and upward and downward energy actions are paid to and from. The k value is

[1] In the French market the term "Offers" is used to describe both upward and downward deviations in power.

applied to imbalance prices to ensure that there is enough revenue in the account to cover RTE's balancing costs (In GB, BSUoS is the mechanism to recover these costs). The idea is to keep a reserve margin of Eur 10 million in this account. At the end of each year, RTE calculates a new value of k to re-distribute any surplus monies in the Balancing Operations-Imbalance account to parties to leave the account empty[2]. This re-distribution is based on the metered volumes of market participants.

Changes to the k value are based on the level of the Balancing Operations-Imbalance account. If the k value is having the effect of recovering too much money from balancing parties then the CRE may decide to lower its value (as has happened over the past four years). If however the account is not recovering enough money to cover RTE's balancing costs from parties then the CRE may decide to increase the value of k. The decision on what value to use is based mainly on historical account levels and the forecast balancing costs of RTE.

Observations

- The French premium/discount is applied to actions taken by the SO where as P212 proposes to apply the premium/discount to a market based price;
- Both the French mechanism and P212 apply an uplift when the market is short and a discount when the market is long;
- The purpose of the P212 premium/discount is to ensure that parties are incentivised to balance their contracted positions, where as in the French market the k factor is applied to the price both to incentivise parties to balance their contracted positions and to ensure that RTE's balancing costs are fully recovered.

A further observation relates to the process used to derive the k factor. This is very iterative, and is based predominantly on the historical size of the balancing account. This is similar to the process used by Ofgem in its analysis of P212 in deriving an appropriate premium/discount to try and reduce the residual cash flow created by the payment and receipt of imbalance charges.

[2] This re-calculated k value is not enduring and is only used to clear the account (i.e. the k value reverts back to what it was previously once the account has been emptied).