

Market Coupling: A Preferred Solution for Cross-Border Power Capacity Utilisation

The degree to which cross-border power flows contribute to market improvement depends on system design: how cross-border capacity is allocated and the obligations of market participants on each side of the border. Analysis of cross-border flows shows that there is still a considerable potential for market improvement and Brieuc Raskin of Morgan Stanley believes market coupling is the best way forward.

Short term cross-border markets

Quite regularly, we see high volatility on the short term market. This in part is caused by explicitly nominated flows that go against the logic of the market: it flows from a high price region to a low priced region. The reasons behind such loss-making transactions are differences in timing between buying the commodity and nominating the flow, different closing times of exchanges, lack of transparency and specific legislation like requirements to bid into a specific exchange.

As long as the market behaves as expected, most market parties can cope quite well with all the different rules. However, as soon as unexpected events occur, it becomes obvious that the time delay and risks of acting in breach of regulations can cause the opposite of what the regulation is aiming for: market failure instead of market improvement.

A good example of this mechanism are the cross-border flows caused by the German electricity spot exchange that recently cleared at unpredictable levels, either very high, either very low. On days where the German spot price is low, one can observe explicit imports from higher-priced Netherlands and France into Germany, while the opposite can occur when the

German spot price clears high. Every spike on the short term leads market participants to increase their risk margin, which can inflate forward prices.

Most of the explicit transport decisions need to be taken before day-ahead market trading becomes liquid and hours before the closing time of the exchanges. Under such circumstances, it is impossible to prevent decisions that on hindsight should not have been taken. Only with a simultaneous optimisation of the supply-demand balance as well as the available cross-border capacity, can one ensure a well functioning cross-border optimisation. Market-coupling is the right instrument to achieve this goal. Including Germany in the Central West European market-coupling is therefore key to a stable well-functioning European short term market.

Not yet perfect

The experiences with power market coupling between France, Belgium and the Netherlands are positive. Morgan Stanley therefore strongly supports expanding this system. Not only to include Germany, but also to broaden the commodity scope to natural gas as well. Especially in the Netherlands, natural gas is the dominant fuel for electricity ►

generation. Optimisation of the output without possibility to optimise the input of the production process is a sin from the viewpoint of optimal allocation of scarce resources. We therefore urge the authorities to step up the efforts to improve the functioning of gas markets.

Developments in the markets do not stop after day-ahead trading is done. Power plant failures can occur, weather forecasts in general and wind forecasts specifically improve as time of delivery comes closer, and plenty of influences on energy demand and production force intra-day adjustments of energy flows.

Market – coupling on a day-ahead basis contributes to the improvement of the allocation of resources, but it should not stop at the day-ahead. Market coupling should expand into intra-day as well, whereby a continuous market similar to Elbas, rather than a clearing market is recommended.

Long term cross-border markets

The markets have a much longer time horizon than day-ahead. Therefore, cross-border capacity needs to be allocated in line with this reality. In the gas market, 10 year capacity allocation is normal business practice (if a party managed to get hold of capacity). In electricity, the standard seems to be maximum allocation of 1 year, which is a striking contrast with for instance, the planning periods for power plants and



even with the common time horizon of the national wholesale term markets. Enabling longer term allocation of cross-border capacity for electricity will boost competition.

Long term cross-border capacity can be considered as an asset similar to generation capacity. It allows producers and consumers to hedge their exposures on the longer term using the wider European market as reference, instead of the limited national markets. Especially in markets that are less liquid, access to long term cross-border capacity can be expected to reduce the bid-offer spread significantly. In its turn, a reduced bid-offer spread makes long term hedging cheaper and thus stimulates trade amongst others, to the benefit of those parties who have a high need for long term price hedging. We are convinced that long term capacity allocation leads to competition enhancement, correct price signals and visibility, liquidity for hedging risks, correct long term investment signals and security of supply. Grid operators therefore should be encouraged to allocate capacity on the long term, e.g. up to 2012-2020.

Prevent hoarding

Although long term capacity allocation is beneficial for the market, there is a risk involved: hoarding of capacity. A mechanism has to be put in place to prevent this from happening. This means that the capacity should be available to the market at regular times, even if it has already been purchased. A liquid secondary capacity transfer market is key to ensure that capacity that has been allocated years ago would still become available to market participants at later times. Since currently the voluntary secondary capacity transfer market is not very active, an automatic resell from one auction stage to another seems the solution to boost liquidity in capacity in an organized way. ►

Reselling means that the capacity is automatically resold in other auctions, for instance quarters of the year. Revenues derived from such auctions are for the benefit of the original holder of the long term capacity. The market participant who had acquired capacity from a previous auction, thus has the choice to either buy back his own capacity or let go of it. Buying back is financially neutral. The big advantage of this system is that capacity holders have to value their capacity rights actively and have to react on price signals: sell, hold or buy. This mechanism can be applied to boost liquidity in the forward market.

Reconciling the short and the long term view

Even for long term cross-border capacity, the moment of final settlement arrives. Instead of a physical settlement, reimbursement for the final holder of the cross-border capacity rights could be derived from the results of the day-ahead market coupling mechanism. The reimbursement is the price difference, if positive, between the reference indices of the two markets which this cross-border capacity connects (in one direction). This positive price difference corresponds exactly to the

congestion revenue of the coupled exchanges. Grid operators thus take no risk, since this is a pure back-to-back operation. With this mechanism, all physical capacity can then be used for market-coupling, leading to the most optimal flows.

A by-effect of this mechanism is that it results in substantial additional volumes and thus additional revenues for power exchanges. This gives the exchanges space for a substantial reduction of the clearing fees. In the design of this system, attention has to be paid to the fact that market-coupling creates a de facto monopoly. Therefore it should ensure low exchange transaction costs and low barriers to entry for newcomers. Monopoly power and excessive direct or indirect transaction costs can cause market failure.

Conclusion

Morgan Stanley strongly supports market-coupling. It has proven to be an efficient method to ensure a correct market-driven flow of power across borders. This leads to an international supply-demand balancing, with the aim of ensuring that power demand is met by the most efficient and cheapest generation across Europe. ■

