What contribution can energy exchanges and OTC trading play in improving market efficiency and liquidity?

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Summary

Liquid markets are crucial for market transparency and optimal business decisions. There are several key enablers of liquid markets. Namely, organised trading platforms, interconnection to neighbouring markets and supportive legislation. The first stage of organised trading platforms is usually represented by broker screens and spot trading. Later exchanges are introduced.

Exchanges offer several advantages over OTC markets (guaranteed liquidity, no counterparty risk, recognised by the public as official prices). OTC markets nevertheless benefit from the emergence of exchanges. Further improvement can be achieved by the harmonisation of rules, settlement procedures and margining across platforms.

Interconnection to neighbouring markets is also crucial. It transforms what are local usually oligopolistic markets into competitive markets where nobody individually is able to set the price. Well-functioning interconnections are not blocked by long term contracts, the capacity is offered in auctions and the decisions of TSOs on how much capacity to offer into auctions is fully transparent.

Another key driver of well-functioning interconnections is sufficient capacity. More capacity could be offered if TSOs adopt some quick-wins i.e. start sharing technical data and models, start to optimise on a daily basis, support cross-border intraday trading, introduce netting, etc.

The improvements should be gradual. A major change in the method of capacity allocation could be very disruptive and detrimental to market liquidity and transparency. Not all changes lead automatically to improvements. Some TSOs (mainly in Central Europe) promote so called flow-based methods of allocation. However, many other TSOs and almost all traders claim that it does not work in real time, due to the many restrictions that must be incorporated. Another well-known improvement is market coupling or so called implicit auctioning. It can be a major step improvement, if it is done well. Quick-wins and debottlenecking of the grids is crucial to allow grids to cope with power flows from unpredictable renewable sources.

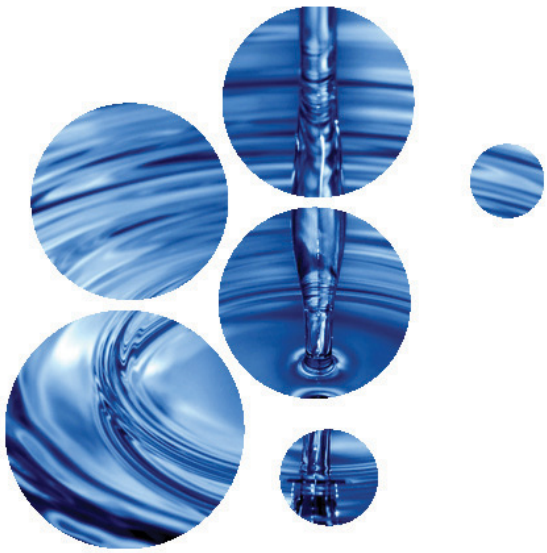
New EU institutions and regional initiatives can also help foster the development of markets. It is important not to allow the supply of power to end users at artificial prices and avoid other forms of perverse regulation (e.g. import/export fees or duties, difficult licensing procedures, etc.)

The CEE region has made huge progress in creating liquid markets. There are liquid spot markets, established exchanges and OTC markets and harmonised auctions of cross-border capacity. Nevertheless, there is still a long way to go.

Introduction

Due to the recession the consumption of electricity has fallen dramatically in most European countries. This decline has been accompanied by a fall in prices both on spot and forward markets. The electricity market in these regions is very fragmented and still far from the ideal of a single electricity market but to the surprise of all of us the market works. Prices follow fuel fundamentals and local merit orders. This is the good news. The bad news is that these markets do not function effectively.

There are several key enablers of liquid markets. Each market has to have several competitive organised trading platforms, sufficient interconnection to neighbouring markets and harmonised and consistent legislation.



Trading platforms

A spot day-ahead hourly market is a must. The spot market enables market participants to adjust their positions according to real-time information. In some countries, a missing spot market is substituted less effectively by day-ahead cross-border trading. When the market is ready to accept market standardisation in terms of traded products or international standard master agreements then brokers become more active. The presence of several international brokers seems to be a good indicator of the status of the market.

Eventually, power exchanges emerge and these offer several advantages over OTC markets. There is no individual counter-party risk, and at least minimum liquidity is guaranteed. Traditionally, exchanges publish transaction statistics and price indices and therefore are recognised by traders, authorities and also by the public as a reliable and transparent market place.

In some countries, we see increasing activity on power exchanges. The Prague power exchange recently expanded its activities to Slovakia and Hungary. Based on one contract, traders can trade forward products with delivery either in the Czech Republic, Slovakia and Hungary. In July, a spot market in Slovakia was launched as a necessary pre-condition for the Czech-Slovakian market coupling project. First days of coupling proved successful and liquidity of Czech spot at least doubled or tripled. It is a good example how an international project can improve the liquidity of a national market. Well functioning power exchanges attract more brokers, often offering clearing services to OTC transactions and therefore OTC markets benefit from the emergence of power exchanges. Further improvements can be achieved by the harmonisation of rules, settlement procedures and margining.

Interconnection to neighbouring markets

Regardless of the size of a national market, physical interconnection can transform an oligopolistic national market into a competitive market, where no company is in the position to set the price. In the CEE region, in accordance with the EU legislation, cross-border capacity rights are offered regularly to the market in auctions and long term contracts do not block or reduce the cross-border capacity. However, the decisions of TSOs as to how much to offer are not fully transparent. In the auctioning system itself there is no built-in economic motivation for TSOs to build new interconnections or free-up more capacity by closer co-operation with other TSOs.

We believe that more capacity could be offered via some quick-win solutions. For example, if TSOs start sharing more data, build common grid models, optimise operation on daily a basis, support cross-border intraday trading, introduce netting of capacities and cross-border redispatch etc. then liquidity will improve.

All these quick-win solutions and the construction of new transmission lines are crucial not only to support competition but also match new grid requirements to facilitate the massive investment in renewable energy.

In the CEE region, TSOs have developed a completely new auctioning system based on a flow-based calculation. Despite the desirability of a common grid model, capacity allocation based on the flow based calculation seems to be too complex and sensitive to a lot of artificial factors. A major change in the method of capacity allocation could be very disruptive and detrimental to market liquidity and transparency. At the moment the flow-based allocation project is not mature enough to go live and we do not believe that the flow-based calculation will ever work successfully on annual or monthly bases.

Market coupling projects are at different stages of implementation but are probably the right way forward in joining national markets and regional markets into a single European electricity market. Market coupling based on an implicit auction of cross-border transmission capacity together with electricity on spot exchanges respects both national merit orders, existing bottlenecks in grids and implicitly enables netting of flows. The flow based calculation of available capacities used for implicit auctioning could be easily tested in parallel with the current NTC calculation. If the new method proves valuable and delivers more cross-border capacity, then it can be easily applied without changing any interface to the market.

Legislation and regulation

The electricity market of the East and South European countries is very fragmented. The electricity consumption of 18 countries is approximately equal to the consumption of Germany. But, it will be much more challenging to achieve the same liquidity in Central East and South East Europe.

Market participants have to study national energy legislation in 18 countries, follow 18 market rules set by regulatory authorities and at least 18 different grid codes issued by TSOs. What do we see? – different approaches to licensing procedures, different scheduling formats and rules, different balancing markets and on top of that various export or import fees and different approaches to setting transmission fees.

In this part of Europe, the unification of law and market regulation is a key issue. Most of these individual national markets are not big enough to host new projects for the construction of modern 600 or 800MW coal or gas generation units, not to mention 1300MW nuclear units. Large, efficient generation will not be sufficiently utilised without reasonably well connected markets. If these markets do not find a way forward on integration and consistent regulation then they will suffer from either a lack of generation capacity and/or high generation cost.

New EU institutions and regional initiatives can help but the key institutions are national regulatory authorities and governments.

There is one more and maybe this is the most important obstacle for the development of the liquid markets; namely the regulation of end consumer prices.

A well functioning market cannot exist if a substantial part of the retail market is subject to price control. Price regulation takes different forms in different countries but the distorting effect is always the same. End consumers do not buy until the regulated price is published. It is usually at the very end of the year. Until it happens traders cannot trade, generators cannot sell because of price risk and liquidity suffers. Generators cannot sell via the exchanges if they do not know whether the price of their production will be regulated or not.

The CEE region has made a huge progress in creating liquid markets, but there is still a long way to go. Liquidity is a complex issue and will not improve while some of the key elements are missing.