

EC CONSULTATION – ELECTRICITY MARKET DESIGN

The European Commission intends to present a proposal for amendments to electricity market design in March 2023. The Commission opened a consultation on several aspects of potential future market design in January 2023, which closed on 13th February.

As Europe's leading power market, Nord Pool has both the experience and expertise to provide valuable input to the Commission's consultation. In this whitepaper, we summarise the viewpoints we have communicated to the Commission, in response to its recent consultation.

Forward markets, Power Purchase Agreements (PPAs) and Contracts for Difference (CfDs)

Of these three, Nord Pool is of the view that the forward markets are the most efficient hedging instruments. PPAs and CfDs can be valuable complements, if structured in a way allowing them to be easily integrated with the organised derivatives and short-term markets (the Single Day-Ahead Coupling SDAC and Single Intraday Coupling SIDC). Ideally, renewables volume forward-hedged under CfDs and/or PPAs should be traded in the SDAC coupled day-ahead auction when it comes to physical delivery.

To trade such volumes in the SDAC day-ahead auction would send the right incentives for a tighter integration of forward and short-term markets for renewables: CfDs and PPAs would have an incentive to align with standardised SDAC products, to allow seamless trading on Europe's short-term markets. These volumes, in turn, would increase liquidity in these markets, contributing to more efficient and reliable price signals for market participants and investors in renewable assets.

Participation for generation under CfDs and/or PPAs in the SDAC markets would also allow for efficient allocation of cross-zonal capacities, as no such capacities would need to be set aside for cross-zonal trading of these volumes outside the organised markets.

Forward Markets

Standardised derivatives contracts enable suppliers and consumers to hedge against spot price fluctuations and enable suppliers/retailers to back-hedge long term consumer contracts. Although liquidity in forward markets has been temporarily affected by a geopolitical supply shock, it will return to a sufficient level when price fluctuations are again driven by market fundamentals.

Nevertheless, the framework conditions for trading in energy derivatives should be made more flexible, in particular allowing for collateralisation via bank guarantees. In addition, TSOs (Transmission System Operators) could enhance efficiency and liquidity in the long-term hedging markets by maximising day-ahead cross-zonal capacity allocation and increasing network capacity where structural bottlenecks occur.

When it comes to the existing virtual hubs in the Nordic countries, Nord Pool's overall experience is positive. Historically the usage of a single Nordic 'hub' reference price (the Nordic System Price) has been a good model for 'proxy trading', by gathering most of the long-term liquidity of all Nordic countries under one reference contract that had good correlation with each of the Nordic bidding zone prices.

However, over the past 5-to-10 years, TSOs have not increased cross-zonal transmission capacities to keep pace with the big changes in power supply/demand that occurred over this period. This has resulted in greater divergence between the Nordic System Price and the 12 bidding zones in the four coupled Nordic countries. Additional liquidity has been further decreased by the European Market Infrastructure Regulation (EMIR) provisions, prohibiting the use of bank guarantees as collateral (these were traditionally the main collateral source for trading long term derivatives in the Nordics). Both areas (reduction in the number of Nordic bidding zones and re-introduction of bank guarantees as collateral) should be addressed in the upcoming electricity market reform.

PPAs

The use of PPAs can be an efficient way to mitigate the impact of price volatilities in the short-term markets on the end consumer's electricity bill. However, as a hedging tool, PPAs are invariably only available to certain larger industrial and commercial consumers with the right credit risk profiles.

There is also a risk that PPAs might drain liquidity from the organised electricity forward market. But if PPAs are standardised, they can be back-hedged efficiently through traditional long-term derivatives. This would, in turn, increase the overall liquidity of derivative markets, which can be used as trade and hedging instruments for a much wider set of purposes than can PPAs and CfDs.

Nord Pool does not recommend that PPAs are given priority on cross-border capacity. If a supplier in the Netherlands wishes to procure electricity from a nuclear plant operator in Belgium under the terms of a PPA, then the physical fulfillment should take place via the SDAC implicit auction market. As such, PPAs help to increase the available liquidity pool for consumers and suppliers, while they are situated in different bidding zones and/or different countries.

CfDs

Two-way CfDs may, in the right circumstances, provide support for investment in new technology that otherwise is not commercially viable, by guaranteeing the price at which a generation plant's output will be sold. The support is most likely to be manifested in cheaper financing costs for the initial construction of a given generation plant. A CfD could also mitigate the price risk of the short-term markets for the investor. In general, more production capacity into the market will result in lower electricity prices.

However, the design of CfDs must be carefully considered to avoid the following risks:

- (a)** CfDs might subsidise technologies which are not climate-friendly if the support criterium is 'inframarginal capacity' , e.g. if the price of gas falls back to low levels;
- (b)** CfDs might inadvertently end up subsidising technologies which can break even at market prices or by using PPAs;
- (c)** CfDs might reduce liquidity on ('cannibalise') the organised derivatives markets and
- (d)** CfD arrangements not being harmonised across Europe risks not having a level playing field between Member States.

When it comes to allocation of revenues or costs from CfDs to consumers, we would be against making any allocation based on the individual consumer's electricity consumption. If such an approach were adopted, there would be no incentive for consumers to reduce demand or adopt demand side response measures.

CfDs should be a temporary subsidy to accelerate investment to meet climate targets and such subsidy should be limited in time. Once the CfD has expired with respect to a specific investment, any pay-out obligation should stop and the investor should face the market's volatility, i.e. accrue revenues and bear losses according to market prices.

Accelerating the deployment of renewables

Mandating liquidity sharing (pooling) between market operators (power exchanges and flexibility market operators) and linking flexibility markets to the wider SIDC intraday market, would greatly increase transparent price formation, send accurate price and investment signals for renewables and shift the focus of competition, innovation and investment away from a battle over which platform can provide its members access to more liquidity. There should be a move towards a focus on how to use every MWh of electricity generated, in the most efficient way, providing easy and cheap access for all market participants to the organised markets and lowering the electricity price by discontinuing individual and unjustified rent-seeking from ringfencing liquidity for exclusive purposes.

Administrative processes and procedures for installing new renewables capacities and for reinforcing existing transmission grid lines should be significantly simplified and sped up.

A Transmission Access Guarantee (TAG) would help support offshore renewables. Europe needs to develop these on a large scale to meet its climate targets and the North Sea is a very suitable area for this. A TAG would make trading via offshore bidding zones much more efficient as the risk of TSO curtailment would be greatly reduced.

In Member States with a regime where national TSOs have an obligation to purchase renewable generation under national Renewable Energy Laws (as in Germany), there should be an obligation on national TSOs to trade all renewables volumes on the open and transparent SDAC and SIDC markets and to select the most competitive market operator for access to the short-term markets, based on an open and transparent tender.

Limiting revenues of inframarginal generators

From Nord Pool's perspective, any form of revenue limitation of inframarginal generators runs counter to the free formation of prices via supply and demand and discourages investment in renewable generation.

Should a revenue cap ever be contemplated again, the level of the cap must be defined at a uniform price at EU level and must be the same across Member States to avoid distortions. Moreover, should such a limitation be contemplated in the future, it should not be allocated based primarily on the individual consumer's electricity consumption. Any pay-out to electricity consumers should be means-tested, i.e. provided only to vulnerable consumers and industrial users at risk of insolvency, to foster energy efficiency and demand-supply-response.

Improving the efficiency of intraday markets

The European short-term organised markets have been functioning perfectly well for decades. That includes throughout the energy crisis. Overall, the liquidity of the day-ahead and intraday markets is healthy and growing, though liquidity in the final hour of the western and central Europe intraday markets would benefit from mandatory liquidity sharing (pooling) between all market operators.

Alternatives to marginal pricing:

Nord Pool sees no viable, efficient and trustworthy alternatives to marginal pricing to establish an equilibrium between supply and demand, including (when available) utilisation of cross-zonal capacity in day-ahead markets.

Marginal pricing ensures that: (i) the cheapest source of energy is used before the more expensive and (ii) investment signals are provided for the correct energy sources. Marginal pricing is the most efficient, robust and transparent way to determine the supply/demand equilibrium in competitive markets. It is based on a merit order of generation assets, reflects accurately the value of consuming power and also includes the cost/value of activating demand response and storage.

Moving cross-zonal intraday gate closure:

Nord Pool agrees with the Commission that moving the intraday cross-zonal gate closure time closer to real time is key for integrating renewable generation which, due to its intermittency, shifts the need to balance market participants' positions in ever greater volumes to the time immediately prior to delivery. Article 7 of the 2019 Electricity Regulation foresaw this need by prescribing that day-ahead and intraday markets should "maximise the opportunities for all market participants to participate in cross-zonal trade in as close as possible to real time across all bidding zones".

Moving the cross-border intraday gate closure time closer to real time, however, must go hand-in-hand with ensuring that TSOs have a legal obligation alongside the systems and processes to make available meaningful cross-zonal capacities during the extra time created by moving the intraday cross-zonal gate closure time closer to real time. It would not help the integration of renewables to repeat the situation at the beginning of the cross-zonal intraday market where, since at least 2019, TSOs have been under a legal obligation to allocate positive capacity values from 15:00 D-1, but many Core TSOs only allocate positive values from 22:00 D-1.

Sharing liquidity in local intraday markets:

Nord Pool agrees with the Commission that efficiency benefits derived from cross-zonal market coupling should be extended to intra-zonal trade between different market operators operating an intraday market within the same bidding zone/scheduling area. The underlying logic – matching orders in an as wide as possible a liquidity pool, to ensure the best possible match – is the same.

There is no reason why efficiency benefits should be limited to times when cross-zonal capacity is available but should not benefit market participants when the intraday market is confined to within a bidding zone or scheduling area. Mandatory liquidity pooling in local markets that close after the cross-zonal intraday market would also allow market participants to choose their market operator, based on its true merits – i.e. on fees, customer service, IT offering, etc – rather than de facto obliging market participants to trade at the only market operator with liquidity after the cross-zonal intraday market. Nothing suggests that extending mandatory liquidity sharing into local intraday markets would jeopardise investment and innovation. In fact, the opposite is true – extension would free up competitors’ resources to drive dynamic competition in this segment of the intraday market.

Further locational and technology-based information in bidding:

The flexibility markets (at Distribution System Operator level) and day-ahead market monitoring would benefit from further locational (and possibly also technology-based) information. Nord Pool is not in favour of moving to unit bidding in day-ahead markets. We strongly support portfolio bidding, where companies are able to balance their own portfolios prior to bidding into the markets. This is difficult under unit bidding, which could deter participation in the market.

Regarding the SDAC and SIDC markets, we are strongly in favour of continued modernisation of the bidding zone model. Bidding zones should be designed to identify structural congestion to foster Demand Side Response (DSR) and flexibility. They should be complemented by the adoption of flow-based capacity allocation across all bidding zones, allowing TSOs to identify where new investments are needed and to optimise capacity allocation and management in existing networks. Crucially, transmission and distribution systems should be upgraded and planning and permitting processes should be more efficient. Member States could also ensure that new generation investments and loads face the cost of their location by making their connection agreements more cost reflective.

In addition to the features described above, more granular temporal signals, such as shorter settlement periods and a shorter gate-closure deadline and improved ancillary services, would also optimise grid management and foster investments in DSR, Renewable Energy Sources and flexibility measures.

Enhancing integrity and transparency

In general, we believe that the REMIT (Regulation on Wholesale Energy Market Integrity and Transparency) framework in the energy industry has worked well. One aspect we think needs regulatory attention is reaching more clarity regarding monitoring of transmission capacity.

The availability of transmission capacity is paramount for price formation. We have seen that even a minor capacity reduction in one MTU (Market Time Unit) can lead to a major price impact. Even though withholding transmission capacity is explicitly mentioned in recital (13) of REMIT and ACER (Agency for the Cooperation of Energy Regulators) Guidance, still we experience no clarity on who monitors if the transmission capacity provided in every MTU corresponds to the actual available capacity and is not unduly limited. This means that there likely exist breaches of REMIT in the provision of transmission capacities, e.g. through undetected illegitimate capacity withholding. Providing actual available transmission capacity should be explicitly covered in REMIT and the monitoring of it should be clarified. Our experience from day-to-day market surveillance in a large part of Europe, is that this is a real problem with a large market impact. We therefore consider that this requires urgent attention.

We do not have specific feedback on the harmonisation and strengthening of the enforcement regime. However, we believe that more transparency regarding sanctioned REMIT breaches is required. For example, publish a detailed description in English of sanction decisions which can be used to improve monitoring by PPATs (Persons Professionally Arranging Transactions) and compliance by market participants.

All changes to REMIT should be considered from the cost-benefit perspective. In the spirit of promoting short-term markets, all changes requiring additional investment from market participants, Registered Reporting Mechanisms and other stakeholders should be considered carefully.

Elements that should be improved within the existing REMIT framework:

- 1.** Review the definition of market participants to include Distribution System Operators – e.g. in physical power markets DSOs may sometimes hold inside information relevant for wholesale power markets but not have an obligation to disclose it, as they are not always market participants. There might be issues with similar types of entities in other wholesale energy markets.
- 2.** As demand flexibility is one of the major instruments in achieving efficient price formation, demand-side should be given guidance on remaining compliant with REMIT.
- 3.** There is still significant work to be done to ensure all NRAs (National Regulatory Authorities) have access to the data collected by ACER under current provisions in Article 8. We believe that efforts should be directed towards improving the use of existing data. Regular reporting of data from the balancing market is an important next step in data collection. However, the process should be consecutive, with surveillance at TSO-level properly established first, as is the case with other wholesale energy markets. Any extension of the REMIT reporting regime should be very carefully consulted on.

On 31st January 2022, ACER took Decision No. 1/2022 requesting additional information in relation to Single Intraday Coupling data. It provided the legal basis to identify all trading possibilities for market participants in the SIDC markets, including orders located in different bidding zones depending on the available cross-border capacity. This decision was necessary because the information linked to these interconnections did not fit the REMIT framework for several reasons (i.e. no respective data fields, no explicit reference in legal documentation, no availability of data by market participants or OMPs (Organised Marketplaces), no legal personality of SIDC, no contractual relations to market participants as primarily obliged entities, risk of double reporting, etc.).

For Nord Pool, the situation as provided by Decision No 1/2022 is sustainable and should not be replaced via a simple extension of REMIT, for instance by extending the definition of OMPs. In particular, transaction data reporting under Article 8 of REMIT does not fit for the reasons listed above. The discussion between NEMOs (Nominated Electricity Market Operators) and ACER showed that any alternative way of resolving the issue would create disproportionately high complexity and costs.

4. The definition of inside information and the definition of information relating to the unavailability of transmission/generation/consumption assets should be aligned. This would provide much needed certainty to market participants on what to report (following the thresholds in transparency regulation) and mitigate double reporting, when market participants in effect report the same unavailability twice under different regulations.

5. Fair competition between Inside Information Platforms (IIPs) should be ensured. Currently, ENTSO-E (the European Network of Transmission System Operators for Electricity) and ENTSG (the European Network of Transmission System Operators for Gas), as well as individual TSOs, operate IIPs which are not aligned with the principle of a competitive level playing field, as they can socialise their costs of offering services (for example, through grid tariffs). If those services are offered to market participants, including TSOs in the case of ENTSO-E, explicit cost-reflecting fees including public price lists should be required. This would help prevent further endangering the level playing field with the well-established inside information platforms set up by private companies.

Conclusion

This consultation has been long-anticipated by those involved in the power market and it is reassuring that the overall good functioning of the short-term markets, with market design which ensures security of supply and efficient operation of the power system – facilitating decarbonisation, cheaper electricity, free flow of power between Member States and delivering innovation in products – has been recognised and acknowledged. It is encouraging to see the Commission seeking to incentivise the use of long-term contracts and wanting to develop alternatives to gas in the system through flexibility, demand side response and developing renewables.

Especially positive are suggestions for a cross-border intraday gate closure that is closer to real time and the suggestion that market operators should share their liquidity in all timeframes until delivery. Nord Pool has campaigned for a shared order book in local intraday markets after cross-zonal gate closure for a very long time, on the basis of its benefits for effective multi-NEMO competition and its necessity for an efficient integration of renewable generation.

At Nord Pool we welcome discussion with our members, partners and other power market stakeholders around market structure, functionality and reform. To initiate a discussion please contact: support@nordpoolgroup.com.

ABOUT NORD POOL Nord Pool, Europe's leading power market, delivers efficient, simple and secure trading across Europe. The company offers day-ahead and intraday trading, clearing and settlement to customers regardless of size or location. Today 350 companies from 20 countries trade on Nord Pool's markets. Nord Pool operates markets in the Nordic and Baltic regions, Germany, Poland, France, the Netherlands, Belgium, Austria and the UK. Nord Pool is a Nominated Electricity Market Operator (NEMO) in 15 European countries, while also servicing power markets in Croatia and Bulgaria. The company has offices in Oslo, Stockholm, Helsinki, Tallinn and London. Nord Pool has 30 years of power market experience built on offering flexibility, transparency, innovation, greater choice and participation to our customers.