Getting EU energy market design right

A cross-value chain vision on the Clean Energy for All Europeans Package
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A common vision for the EU Internal Market: large and liquid zonal electricity markets and efficient cross-border cooperation for the European energy transition

The EU Clean Energy Package: sound starting point, but margins for improvement

The Clean Energy Package (CEP) sets a vision for an integrated and efficient Internal Energy Market, effectively rolling out an EU Energy Union. We support the European Commission in their effort to propose a path for achieving a cleaner power system to 2030. The majority of the proposed measures in the CEP offer a good basis to reach this goal by removing obstacles to free pricing on the power markets, boosting balancing group responsibility, enabling consistent trade products on the power markets and the competitive determination of renewable energy support.

However, some provisions regarding in particular bidding zones, regional cooperation across Member States and Transmission System Operators, and the governance of the EU energy and climate strategy need to be reviewed and further improved, to clarify the way forward. In this paper EEX and 50Hertz offer their view on how to get the EU energy market design right.

Large zonal markets enable RES integration

The European power system is transitioning away from fossil fuels and into renewable energies. Large zonal market areas are crucial to integrate growing RES shares into the grid. The German-Austrian bidding zone is the most liquid market area in Europe where 4,996 TWh, including all trading in exchange spot and forward markets and the over-the-counter (OTC) markets, have been traded in 2016, compared to 1,962 TWh in France and 1,825 TWh in the Nordics (according to Prospex/European Power Trading 2017). The German-Austrian bidding zone sets the reference price for trading across European markets and has been instrumental in helping Germany integrate over 30% of RES in its power system. In some areas such as the 50Hertz control zone, RES represent at times 50% of total generation.

Unlike smaller local markets, large and liquid markets ensure most efficient allocation of resources, the possibility for cost-efficient mitigation of financial risks and incentives for investments, maximising overall welfare. Large and liquid markets guarantee competition and avoid issues of market power. Such markets can create a strong market price signal, which is the key coordinating element for the market design envisaged in the Clean Energy Package. It is key to the success of the package as a whole.

To allow for meaningful investment signals, bidding zones should reflect the long-term target model of the grid including planned grid extension. Only such approach ensures predictability for the market, and thereby supports markets’ efficient functioning. We believe that the established zonal market model in the EU Internal Market is best suited for the future changes and increasing RES shares in the European power
Any shift to other price discovery mechanisms and market design configurations, in particular towards local marginal pricing, would contradict the Energy Union project of further integrating Member States energy markets, and the energy market liberalisation process started more than two decades ago.

Identifying the optimal bidding zone configuration in this European zonal system welfare is a multi-criteria-assessment. Different factors such as overall efficiency, market liquidity – on both the Spot and the Forward/Futures markets - and system security need to be taken into account. Since any reconfiguration of the bidding zones has considerable welfare impacts onto regional and national markets, a transparent procedure involving the Member States and market actors is therefore crucial to avoid decisions taken in isolation. The current bidding zone review process mandated by the Capacity Allocation and Congestion Management (CACM) Guideline provides a possible opportunity to incorporate stakeholders’ feedback.

The proposed Electricity Market Regulation in so far does not move into the direction of an efficient and integrated EU power system. It, on the contrary, adds confusion to the definition of bidding zones. Art. 13, in fact, states that “each bidding zone should be equal to an imbalance price area”. Such a wording would automatically trigger current bidding zones splits and lead to further fragmented and not united markets. We therefore call for legislators to reverse such a definition, having imbalance price areas to follow bidding zones configuration.

In general, the bidding zone review process described in Art. 32 of the CACM Guideline needs to be clearly performed, duly involving all affected stakeholders, from TSOs to energy exchanges. This includes namely also financial market participants, which trade up to six years into the future. Against this backdrop, the proposal in the Electricity Market Regulation (Art. 13) enabling the Commission to finally decide upon the bidding zone configuration should be therefore reviewed carefully.

**Regional cooperation is key for delivering on the EU Energy Union**

Regional cooperation is crucial for the future of the EU energy system. TSOs have voluntarily set up the Regional Security Coordinators (RSCs) CORESO and TSCNET since 2008, which provide essential services to European transmission grid operators. RSCs have been created to reach common and coordinated decisions based on mutual analysis of TSOs in today’s highly meshed transmission grids. RSCs become formalised and legally-binding once the EU System Operation Guideline (SO GL), approved by the Member States in May 2016, enters into force in 2017.

However, the proposed Electricity Market Regulation (Art. 32 and following) introduces Regional Operational Centres (ROCs) as an additional governance layer on top of the voluntary achievements by TSOs during the last decade, and in parallel to the legally-binding provisions laid down in the SO GL. Before introducing an additional layer of ROCs, TSOs’ experiences with the RSCs should be carefully assessed. Implementation of the legal provisions of the EU System Operation Guideline is a key priority for European TSOs.

Increased and improved cooperation between TSOs is needed to make sure that market requirements are fulfilled in a harmonised way across Member States.
Clarifying the objective of increased TSOs cooperation is though a precondition in order to avoid detrimental effects on the markets. The target model should be in so far the creation of large and coherent market areas in Europe, which constitute the key requirement for liquid and well-functioning electricity markets. This is of particular importance for the further efficient integration of renewable energies into the market.

Regional adequacy assessments are another pillar of regional cooperation in the Internal Energy Market. Well-designed regional capacity adequacy assessments could more efficiently provide the needed level of capacity to guarantee security of supply. These cross-border assessments shall reduce the need for market distortions such as capacity remuneration mechanisms, allowing Member States to rely on capacity located beyond their borders. However, a clear distinction in such assessments, which form a basis for reviewing the need for introducing a capacity remuneration mechanism, should be drawn between long-term generation adequacy and short-term network adequacy to mitigate network congestions. With increasing RES deployment, TSOs need to make use of redispatch measures, with growing costs for consumers. Rising redispatch costs are a temporary effect, and will decline with continued grid expansion. Hence, extension of transmission grids is key to overcome grid bottlenecks to reduce redispatch costs. Although we in principle agree with the Commission that market-based solutions are more efficient than regulated measures, the obligatory introduction of redispatch markets raises serious concerns regarding market power, potentially raising the costs for final end-consumers – especially in Germany, with temporarily high redispatch volumes. A better solution could be the introduction of market-based approaches on small-scale or voluntary basis to collect further experience on which the next decision could then be based.

Overall, we believe that RSCs in their current corporate structure are the right way forward to help to reach these goals.

**Internal Market governance should streamline RES, carbon and climate policies**

The draft EU Electricity Regulation suggests that renewable energy support going forward should be market-based, renewable energy should bear balancing responsibilities and priority dispatch should be progressively phased out. These provisions are essential for an efficient functioning of the power market. It is of paramount importance that energy and climate action policies are coordinated to avoid overlaps harming their overall efficiency.

The provision of Environmental Performance Standards for capacity participating in Capacity Remuneration Mechanisms, should be backed up by detailed analysis of its impact on other policy tools such as, in particular, the EU Emissions Trading System, the EU’s main climate policy instrument.

The absence of such analysis would risk harming the efficiency of achieving policy targets in both energy and climate areas. Such ‘policy overlaps’ should be avoided whenever possible. To this end, the Clean Energy Package also foresees increased
reporting and policy coordination of climate and energy policies between Member States and the Commission. This can be a positive step to increase transparency and decrease effects of policy overlap.

About

The European Energy Exchange (EEX) is the leading energy exchange in Europe. It develops, operates and connects secure, liquid and transparent markets for energy and commodity products. At EEX, contracts on Power, Coal and Emission Allowances as well as Freight and Agricultural Products are traded or registered for clearing. Alongside EEX, EPEX SPOT, Powernext, Cleartrade Exchange (CLTX), Gaspoint Nordic, Power Exchange Central Europe (PX) and Nodal Exchange are also part of EEX Group. Clearing and settlement of trading transactions are provided by the clearing house European Commodity Clearing (ECC) and by Nodal Clear in the United States. EEX is part of Deutsche Börse Group. More information: [www.eex.com](http://www.eex.com)

With about 1,000 collaborators, 50Hertz takes care of the operation and the expansion of the transmission grid. Furthermore, the company is responsible for the management of the overall electrical system throughout the German Länder of Berlin, Brandenburg, Hamburg, Mecklenburg-Western Pomerania, Saxony, Saxony-Anhalt and Thuringia. As transmission system operator active in the Central European market, 50Hertz is responsible for the secure integration of renewable energy, the development of the European electricity market and for maintaining a high level of security of supply. Since 2010, Belgian grid operator Elia and Australian infrastructure fund IFM Investors are shareholders of 50Hertz, holding stakes of 60% and 40%. As a European transmission system operator, 50Hertz is part of the Elia Group and a member of ENTSO-E, the European Network of Transmission System Operators for Electricity. More information: [www.50hertz.com](http://www.50hertz.com)