

Upcoming EU Commission proposal on the EU Electricity Market Design

T&D Europe¹ position paper

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Summary

A properly redesigned electricity market is a milestone for the realisation of the Energy Union. As such, the future energy market needs to be transparent and dynamic in order to deliver effective investment signals.

Our industry needs a holistic approach that includes the entire energy value chain. In particular, giving special attention to demand side efficiency and all flexibility sources will allow to close the current regulatory and innovation gap at transmission and distribution level.

Much of the focus in the European debate has been on feed-in-tariffs for renewables, capacity mechanisms and carbon taxes. Today the discussion needs to extend to issues such as market balancing mechanisms, digital technology and intra-day electricity trading. A number of countries have already started to reform their domestic market, but these appear as mere initial and uncoordinated attempts to grapple with the problems. There is a growing consensus that such a patchwork of national approaches will be sub-optimal and expensive.

A new market-based approach is needed with prices rewarding flexible, clean and “fast delivery” technology solutions.

T&D believes that well designed and low cost state interventions are necessary during the transition to a more flexible, low carbon energy system, but should decrease over time as new technology costs fall.

T&D position

In our view, an approach based on the following concepts could deliver a more effective market design for all:

- **A coherent, flexible EU-wide policy, built on existing policies.** We support a review of the Energy Efficiency Directive in order to close current gaps at end use, distribution and smart grid level as well as an evolution of the Energy Performance of Buildings Directive towards “connected buildings” that would pursue the existing

¹ T&D Europe (www.tdeurope.eu) is the European Association of the Electricity Transmission & Distribution Equipment and Services Industry, which members are the European National Associations representing the interests of the electricity transmission and distribution equipment manufacturing and derived solutions. The companies represented by T&D Europe account for a production worth over € 25 billion EUR, and employ over 200,000 people in Europe

Eco-design Directive's energy efficiency achievements to further systems levels. In addition, designing the new energy market should go hand in hand with the Digital Single Market, taking into account the industry's rapid evolution through the use of growing digital technologies, including in the energy and manufacturing sectors. Finally, we support a reform of the Emission Trading System (ETS) driving a robust, predictable and growing carbon price.

- **Concerning the full market integration of renewables**, we believe that market design should allow renewables to compete on the same level playing field in all market processes - without special rules - as soon as they have become mature enough. For new technologies requiring initial support, incentives should trigger rapid cost reduction and should therefore decrease accordingly.
- **Regional, harmonised and transparent system adequacy assessments**. A common methodology and a common European approach are necessary. The strong focus on generation capacity in the context of the generation adequacy debate requires balancing. The different options of ensuring balancing of load and generation should be able to compete at equal level, involving distributed resources, both on generation and demand side, which should be on equal footing with generation, including in intraday markets. If properly designed, the necessity of capacity mechanisms should diminish.
- **Market incentives for a more flexible and efficient system**. Better linking wholesale and retail market should be a priority, though not only in terms of a "top down" approach so as to bring more convergence between wholesale and retail prices, but first and foremost as a "bottom up" approach through full consumer empowerment. The contributions of all flexibility sources and demand side resources impact on cost efficiency should be properly recognised and provided with a level playing field. We support the free flow of electricity in the EU internal market as a fifth freedom for Europe. Consumers need to be able to achieve better control over their energy costs, consumption and overall management through the combination of decentralised energy generation, energy management systems and smart appliances.
- **Digitisation and automation of the network**. Any future market design, irrespective of its final set-up, will have an impact on the network. The stability of the system and the quality and security of supply are fundamental. This means that grid investments and their remuneration schemes must be adjusted to the new requests that the network will need to cope with. A high degree of digitisation and automation will be key to deliver the future market system, in particular considering the challenge of coordinating the very high number of distributed resources that will feed future power systems.

Next steps

T&D welcomes the opportunity to debate the issues with the European Commission, European Parliament and other stakeholders over the course of 2016 as the EU's electricity market reform proposals develop.

Annex: Important topics to be taken into account for a successful market design (Based on T&D Europe's position provided to the ETP SmartGrids in November 2015 as input for the consultation on market design)

Main obstacles that should be tackled to kick-start demand response

- Equal Access to market: Consumers shall be given the possibility to monetise the benefits of modifying their flexible consumption and injection on energy markets when relevant.
- Contractual arrangements: The regulatory framework shall enable the creation of clear, simple and transparent contractual arrangements for demand response.
- Financial adjustment mechanisms: Fair financial adjustment shall be harmonised across Europe, reflecting of benefits & costs.
- Timely access to data: Five CEER guiding principles of data management shall be implemented by the whole value chain (privacy and security, transparency, accuracy, accessibility and non-discrimination).
- Clear framework for customers: Public & private stakeholders shall promote clear principles for residential AND non-residential customers to facilitate consumers reception of demand side flexibility options.
- Grid operators to enable & use flexibility: An EU initiative is needed to incentivise further grid operators' investment into smart grids solutions.

Ways to allow investment in renewable energy sources to be increasingly driven by market signals

There are two critical levers to facilitate market-based deployment of renewable energy.

On the one hand, ensuring consumers' rights to self-generation and self-consumption via a harmonized system at EU level (ensuring non-discriminatory approach and providing guidelines on how to remunerate prosumers).

On the other hand, CO₂ externalities shall be taken into market signals via - for example - a robust CO₂ price/taxation system. Support schemes for renewable power generation need to be aligned with energy markets as well, e.g. they should not provide fixed payments but instead price premium to energy market prices.

Storage is clearly one of the means to provide flexibility and more efficient use of the grid infrastructure.

Obstacles to fully integrating renewable energy generators into the market

One of the current obstacles concerns the lack of arrangements facilitating the end-users' proactive role in markets. Harmonised rules about demand response participation, self-generation, and transparent and dynamic tariffs/costs as well as technology deployment efforts toward smart grids, energy efficiency and storage are critical in this respect. Aggregated renewable energy, whose variability is much more predictable

and which can be matched with flexible demand for firm commitments, should be granted the same access to the markets as traditional generation.

On the longer run, it is important to be aware that the task of today's marginal cost based markets is to ensure the most cost efficient short-term dispatch of the existing generation system, with a significant share of variable cost. In a fixed cost dominated system, this task does not exist anymore: instead an efficient use of the grid infrastructure may become the economic basis for dispatch decisions.

Future role and governance rules for distribution system operators

EU rules must give increased priority to the system flexibility, in order to increase the use of distributed energy resources, such as distributed generation, and dispatchable load and storage systems. New tasks and responsibilities of DSOs should be regulated by independent NRAs (national regulatory agencies). Similarly, metering data should remain the user's ownership under the management of independent NRAs. The whole energy value chain should be involved with discussions about how best handling data management in the energy sector at EU level. For DSOs to be neutral players, the third energy package should be better enforced with a mission for DSOs to optimise the system, the infrastructure, and the balance of supply and demand at their level first; then managing interactions with the wider power system at national and regional level.

The EU must ensure pan-European grid tariffs reforms promoting both energy efficiency and renewable energy objectives, while guaranteeing predictable funding for grid and system costs. Distribution tariffs - network charges are a significant part of retail price (around one third on EU average). The electrical distribution network is critical for the EU energy transition: 95% of the renewable sources will be connected to it. Much stronger incentives should be given in order to achieve the optimisation and the flexibility of energy management within DSOs revenues (instead of looking only at kWh flows). DSOs should get, through network charges, the revenue needed to ensure that proper network investments are made, specifically in smart grids and in OPEX improvements. For this, a European approach, through distribution tariffs, is needed.