

A Market Design fit for consumers and carbon neutrality

The EU global objective of emissions reductions in 2030 and 2050 implies a transition towards an electrified economy. Unfortunately, the current pace of investments in new renewable and low carbon capacities, and in electrification is too slow to meet three key objectives:

- The EU 2030 and 2050 CO₂ emissions reduction objectives
- The EU energy security of supply objective due to lack of new capacities and closure of the most polluting plants.
- The affordability and competitiveness objective: ensuring a sustainable electricity price to protect households and European economy competitiveness, reflecting the cost of the electricity mix. This supposes to think the reform starting from the end-consumer.

To address these challenges, EDF promotes a two-step approach, with a market-based philosophy:

- Preserving the European short term wholesale market as it has proven its efficiency to optimise the use of available generation capacities and interconnections, providing de facto a very helpful solidarity effect in a situation where many generation capacities were not fully available (gas, nuclear, hydraulic and wind assets).
- Developing a long-term market, beyond the current 3 years horizon, to promote the necessary level of investment for the next decades and reduce the cost of the transition for households and companies.

In addition, to these core issues, this reform could be an opportunity to complement the Clean Energy Package to incentivise flexibility especially of the demand side with a real empowerment of the final customer. Improvements on capacity mechanisms should also be planned to fully cope with security of supply issues.

Finally, there must be an effective transition from the 2022 emergency measures to this new organisation of the electricity market. The capture of inframarginal revenues, exceptionally put in place in a situation of sky-high electricity prices, has no reason to be continued within a renewed electricity market. Moving to predictable fiscal measures to stabilise prices for end consumers would be more appropriate.

CREATING A LONG-TERM MARKET TO BETTER PROTECT CONSUMERS AND INCENTIVISE INVESTMENTS

First, it is necessary to extend the horizon of forward markets up to 7 to 10 years. That would allow a price formation better reflecting costs of low carbon generation assets and market underpinnings with less dependency on fossil fuel price variations. The development of this market can be stimulated upstream by producers or suppliers interested in securing their sales to consumers or to third-party players. It can also be stimulated by consumers or suppliers' interest in securing or simplifying their purchases to horizons further ahead than the current market horizon. This new horizon could be boosted by obligation and/or incentives on suppliers to cover a fraction of their customer portfolio with own resources or with financial guarantees to face up to market price volatility.

Second, it is recommended to allow/facilitate the development of long term PPAs – with durations of approx. 10 to 20 years – for all types of carbon neutral assets. These contracts should be first of all freely negotiated with all interested parties such as intensive industry.

These PPAs would guarantee to customers an electricity price that is much less affected by fossil fuels price volatility, in particular gas. Indeed, prices would be increasingly guided by genuine production costs and result from free competition between producers. Under these conditions, producers would be able to engage substantial and market-oriented investments to maintain their assets and build new plants. The market would thus directly contribute to the three objectives identified above.

To unlock this potential of the market, some legal evolutions are needed without modifying the basic rules of the common market, for instance,

- Reassessing some antitrust rules and interpretations that prevent easy conclusions of such contractual agreements for the large majority of European energy players,
- Introducing a set of minimal and balanced regulatory obligations to limit opt-out from long-term supply contracts to ensure the viability of this new long-term market.

Third, long-term contracts with state guarantee such as RAB or two sided CfD for new carbon neutral assets will be needed to lower the cost of the transition. Indeed, some capital-intensive investments may require specific long-term support to reduce their overall cost, especially for their financing. State guarantee would lower risks and finally the costs for both producers and consumers. Cutting red tape and facilitating both the permitting and approval procedures need to be looked at. In addition, a more predictable and increasing CO₂ price, as foreseen in the latest reform, would help to reduce the cost of the transition.

Finally, two additional measures are needed to protect specific consumers such as households and SMEs:

- **Possibility for MS to establish regulated tariffs beyond 2025 (art.5 of the Electricity Directive) to reduce their exposure to extreme market volatility.** Those tariffs, implemented at national level and optional for Member States, could be built on long-term contracts with a flexibility component.
- **Introduction of rules in the Electricity Directive to improve suppliers' hedging to avoid bankruptcies** as seen in fall 2021 in several MS that have left many consumers in difficult situations and have had a cost for the society.

ENHANCING THE CLEAN ENERGY PACKAGE, FLEXIBILITY AND CAPACITY MECHANISMS

The Clean Energy Package has paved the way towards some novelties still under implementation in some Member States. The recent energy crisis has reinforced their interest:

- **Demand behavior has been key this winter to avoid any power cut.** This proven capacity of customers to adjust their consumption has to be better organized building on awareness campaigns, prices signals differentiated between peak and off-peak hours, critical peak pricing or resell of energy by customers on markets. That would allow demand time shift and demand reduction.
- **Empowerment of the final consumer must be reinforced:** in addition to demand response, final consumers should be offered services giving them the capacity to locally develop their energy (self-consumption or energy communities) to better control their consumption and their invoices with an appropriate tariffication of services provided by the grid.
- **Capacity mechanisms give an incentive to ensure there is enough capacity to balance supply and demand** in order to ensure security of supply criteria. These mechanisms should provide a fair compensation to all generation and demand side capacity contributing to security of supply. The future reform should consider these capacity mechanisms as a genuine part of the electricity market design and their approval should be further standardized/facilitated.

Nonetheless, a new idea appeared recently in the EU debate around **locational signals**, which involves a move towards multiple local spot markets. **This measure would fragment the internal market** adding a layer of complexity with no effect on the key question: how do we invest quickly and for decades in the energy transition?

The evolutions proposed in this paper would avoid two hazardous orientations: (a) not changing anything by refusing to complete the wholesale market with long-term items and (b) re-regulating the entire sector. The EU would then certainly miss its climate, security of supply and affordability objectives.