



An assessment of the European electricity market reform options and a pragmatic proposal

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The current European energy crisis, caused to a large extent by the unlawful invasion of Ukraine by Russia, has renewed calls for a deep reform of the European electricity market. However, these calls for reform are not new: the increasing share of variable renewables (such as wind or solar photovoltaics) in electricity markets and its impact on the market has been a concern for many academics and practitioners for many years, who have been discussing and formulating different proposals to make the electricity market signals compatible with the energy transition and with an efficient operation and investment. Now, this discussion has been brought again to the fore, although with not necessarily the same objectives: the problems identified for systems with large share of renewables, and the time frames involved, are not the same as those currently experienced under the natural gas crisis. Therefore, the solutions devised may not be the same either.

In this paper, we look at the alternatives proposed for the reform of the European electricity market, analysing their advantages and disadvantages, and we put forward a specific proposal for the reform. We focus mostly on measures directed at the wholesale generation market, although we also propose some changes that we believe will also be needed at the retail level. Emergency measures to tackle the current energy crisis, which are not necessarily consistent with the long-term reform and should definitely not determine the long-term design of the European electricity market, are very briefly assessed in an annex, including their compatibility with this long-term reform.

Following St. Ignatius of Loyola's famous quote (*In time of desolation never to make a change...*), we believe that the reform of the European electricity market should be carefully thought over, given the many implications of the different proposals on efficiency, equity, administrative complexity, and the need to succeed in the energy transition. In particular, we should not haste to remove the short-term electricity market model that Europe has

built over many years. As with the Chesterton fence, this market performs a critical task and removing it might create more problems than sometimes argued.

That of course, does not mean delaying the reform: indeed, the impacts of the current crisis could have been minimized if the reforms that many experts have been proposing for many years would have been already implemented.

We believe that any sensible proposal should be based on two pillars: first, all generation technologies and demand resources may compete to offer valuable services to the system (energy, firmness, reliability, adequacy, flexibility, etc.) if technically possible; the value for the power system is not given by technologies, but by the capabilities to provide specific services. Second, price signals (both market-derived or regulatorily fixed) must be as efficient as possible to incentive the right operation and investment both in generation, storage, networks and demand.

The central points of our proposal are:

- To maintain the short-term market, but improve some of its elements (temporal and geographical granularity, bid formats and market algorithms, local flexibility markets);
- To promote long-term markets to enable consumers to benefit from more stable and cheaper prices. This may be done with standardized, technology-neutral, European-scale products, such as Contracts for Differences or Reliability Options; and requiring all retailers and large consumers to contract a minimum amount of these products in public, centralized auctions;
- To introduce efficient mechanisms for protecting vulnerable consumers, such as Affordability Options;
- To develop European trading platforms for primary and secondary long-term markets;
- To ensure that the retail market is compatible with the generation market reform, and that it provides the required level of competition and signals for an efficient behaviour of demand.

We believe that a decentralized, European-scale, market-based approach to the reform, in which all technologies are allowed to provide any service technologically feasible in transparent, European-wide platforms, would be superior to a regulated, centralized, technology-specific, one. If carefully designed, and protected against market power, it can overcome many of its problems, while avoiding the inherent disadvantages of a centralized approach. By incentivizing the participation of demand in all areas and promoting innovation, while providing certainty to investors, our proposal ensures an efficient energy transition and, as the European Commission demands, puts citizens (and their decentralized demands) at the centre of the transformation.

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