

European Energy Regulators' White Paper # 4
Efficient Wholesale Price Formation
Relevant to European Commission's Clean Energy Proposals
29 May 2017

1. Introduction

This Regulatory White Paper presents the views of the Agency for the Cooperation of Energy Regulators (the Agency) and National Regulatory Authorities in the Council of European Energy Regulators (CEER) on Efficient Wholesale Price Formation. The aim of this White Paper is to deepen understanding and to assist the EU Institutions in assessing the proposals contained in the "Clean Energy for All Europeans" legislative package of 30 November 2016¹.

2. Regulators' key recommendations

- ***Full implementation of existing legislation is necessary***
 1. Full and consistent implementation of the existing legislation across all Member States is needed.
- ***Markets require efficient pricing to bring benefits for consumers***
 2. The real time value of energy should be the basis of the price that all participants in European wholesale markets face. It should also be able to rise, in case of scarcity, to the maximum value consumers are willing to pay for the electricity they consume. Therefore, a full implementation of marginal balancing energy pricing, as foreseen in the Electricity Balancing Guideline, is important.
- ***Place consumer's value into the energy price***
 3. Remove price caps below the Value of Lost Load (VoLL), allowing prices to rise to the level that consumers are willing to pay to drive demand for flexible capacity, demand response and other innovations as well as incentivising efficient use of the transmission grid.
- ***All market participants should bear the same balance responsibilities***
 4. It is important that balancing market signals are reflected in the energy price as much as possible to avoid undue fragmentation of markets between different services.
 5. All participants should face the same incentives to balance supply and demand, regardless of technology, in order for there to be a level playing field between technologies.

¹ For ease of reading, reference to the Electricity Regulation refers to the re-cast Electricity Regulation (EC) COM/2016/0861final/2 - 2016/0379 (COD), and reference to the Electricity Directive refers to the re-cast Electricity Directive COM/2016/0864 final/2 - 2016/0380 (COD). References to specific Articles in the proposed recast legislation relate to the revised texts (corrigenda) published by the [European Commission](#) on 23.02.2017.

- **Improved price formation in short-term markets could remove barriers to efficient price formation in forward markets**
 6. Barriers to efficient price formation in and between all timeframes (Balancing, Intraday, Day Ahead and Forwards) should be removed while taking into account the specificities of each timeframe.
 7. Product innovation and removal of barriers to efficient price formation should allow participants to hedge against short-term volatility.
 8. EU-wide auctions should complement continuous trade in Intraday markets.
- **Efficient procurement of energy and reserves is important**
 9. The efficient procurement and utilisation of reserves and the energy they provide will deliver the best outcome for consumers.

3. Full implementation of existing legislation is essential

European Energy Regulators have played a central role in implementing the Third Energy Package and delivering benefits to consumers. We stress that the full implementation of the existing legislation, most notably the Electricity Balancing (EB) and Capacity Allocation and Congestion Management (CACM) Guidelines, should be prioritised further to improve markets functioning.

In order to realise the full benefits to consumers, we recommend that the new proposals build on the progress achieved so far. For example, we recommend that the timeline for the harmonisation of the Imbalance Settlement Period (ISP) or the prohibition to link upward and downward balancing capacity, as defined in the EB Guideline, be maintained.

4. Markets require efficient pricing to bring benefits for consumers

Electricity consumer bills comprise many different components, most notably those related to the wholesale energy cost and the cost of the network required to transport the electricity. The wholesale markets are where electricity generators and suppliers come together to trade electricity. The functioning of these markets should aim to deliver electricity for consumers in the cheapest possible way.

Wholesale markets operate across many timeframes, from long-term contracts covering years of delivery and helping secure investment in generation technologies, to trading for delivering electricity within minutes. Most consumers do not directly access wholesale markets, but are served by suppliers who trade on these markets to procure the energy consumers demand. Many suppliers use long-terms markets to hedge risks from volatile short-term wholesale prices, thus providing consumers with less volatile energy prices.

In recent years, more and more new parties are engaging in wholesale markets such as independent suppliers, smaller generators and even groups of active consumers who can have their bills settled based on wholesale prices. It is important that wholesale markets produce clear and cost-reflective price signals against which all participants can make their trading decisions.

The scale of the transformation Europe's energy sector is facing requires well-functioning, integrated markets, a level playing field and clear and accountable governance based on independent regulation. It also requires the customer to be at the heart of the energy market. European Energy Regulators therefore welcome the ambitious "Clean Energy for all Europeans" package.

Competitive wholesale electricity markets deliver efficient prices and drive innovation, benefiting consumers and assisting the transition to a clean energy system. A fully functioning wholesale market should allow multiple buyers and sellers from across Europe to access the products that they need to achieve their aims, whether that is hedging risks over longer-term periods, taking advantage of their flexibility in short-term markets or moving electricity freely across borders. Robust, transparent price signals, with consistent market rules, are necessary to provide for efficient prices to consumers, the right incentives for participants and appropriate price signals to drive investments.

<p>European Energy Regulators support the following aspects of the European Commission's proposals:</p> <ul style="list-style-type: none"> (1) the inclusion of the Value of Lost Load (VoLL) as a signal of consumers' willingness to pay/accept; (2) the removal of price caps; and (3) the emphasis on balance responsibility. 	<p>European Energy Regulators see scope for improvement of the European Commission's proposals, to the effect that:</p> <ul style="list-style-type: none"> (1) full and timely implementation of adopted Network Codes and Guidelines is ensured, e.g. the deadline to move to Imbalance Settlement Period (ISP) harmonisation by 2025, prohibition to link upward and downward balancing capacity, and the exceptions on balance responsibility; (2) the proposals for dispatch/curtailment and respective remuneration is further elaborated; and (3) the link between some proposals (e.g. local communities) and a balance responsibility framework is further elaborated.
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5. Place consumers' value into the energy price

The price at which any product is sold should, among other things, reflect its scarcity. For electricity, this scarcity emerges at the time the electricity is generated and consumed. Therefore regulation should ensure that this real time signal is accurate. In the wholesale energy market we expect prices in short-term markets to be allowed, in extreme scarcity situations, to reflect consumers' willingness to pay for energy. These signals would encourage efficient investment in flexible production or demand side response - whichever is cheaper – that will benefit consumers.

Accurate price signals are increasingly important in the face of the wide scale deployment of intermittent generation (e.g. wind and solar), the emergence of new flexible energy providers and changes in the way energy is consumed (by electric vehicles and storage). The ideal system should provide a level playing field for all sources of energy to compete, bringing costs down to efficient levels and thus minimising the cost to consumers.

Currently, efficient price formation in times of scarcity is not always achieved in some markets. This can be due to the existence of price caps or floors, fear of regulatory intervention if prices are perceived to reach too high a level or through badly designed and/or uncoordinated political interventions. We welcome the European Commission's proposals to incorporate the concept of Value of Lost Load (VoLL) when assessing price limits and to restrict, to the extent possible, political interference in price formation. Allowing prices to reflect scarcity will improve efficiency through electricity priced to reflect market conditions. This has the potential to lower costs, provide a more efficient use of the transmission grid and properly distribute costs and benefits between producers

and consumers. We therefore consider that allowing prices to reflect scarcity should be the basis for good market design.

6. All market participants should bear the same balance responsibilities

Currently, some wholesale market participants are shielded from real time market or imbalance prices, as they have no responsibility to balance the amount of energy they procure (or generate) with what they must deliver to consumers. This provides an uneven playing field between different technologies. It is important that all participants are exposed to signals from the balancing energy markets and imbalance settlement process.

We welcome the European Commission's proposals to introduce balance responsibility for all technologies allowing them to compete on a level playing field. In our White Paper on *Renewables in the Market* we further elaborate how the provisions on balance responsibility can be improved. In particular, we recommend that all market participants face the same signals and balance responsibilities in order for there to be a level playing field between technologies.

7. Improved price formation in short-term markets could remove barriers to efficient price formation in forward markets

Creating a consistent price signal between markets that can propagate to forward timeframes means that participants can be confident that they will be able to compete on equal terms. Barriers to this propagation shall be removed. We welcome the aim of the European Commission's proposals to promote the developments of the products that consumers need. However, European Energy Regulators believe that regulation should be sufficiently flexible to allow participants to develop new products to manage their risks in this changing environment. For instance, we consider that intraday auctions could complement continuous intraday trading, providing a marginal price signal consistent with day-ahead and balancing markets.

8. Efficient procurement of energy and reserves

Undue fragmentation of markets between different services should be avoided. Therefore it is important that prices provide correct and consistent signals in and across all markets. We see balancing services as a key component of the energy market to balance supply and demand in real time. The efficient procurement and utilisation of reserves and the energy they provide will deliver the best outcome for consumers: this will be promoted by the full implementation of the CACM and EB Guidelines, which is therefore essential. Additionally, European Energy Regulators propose that the benefits and costs of shorter-term contracting of reserves be assessed and explore where consumers could benefit from the joint clearing of reserve and energy markets (also known as 'co-optimisation').

Annex 1: Relevant CEER/ACER Papers

The White Paper builds on the "[European Energy Regulators' Overview Paper - Initial Reactions to the European Commission's Proposals on Clean Energy](#)", published by the Agency and CEER on 23 January 2017. It is part of a series of White Papers from European Energy Regulators covering key topics related to the Clean Energy package.

1	European Energy Regulators White Paper #1 Renewables in the Wholesale Market , May 2017
2	European Energy Regulators White Paper #2 Role of the DSO , May 2017
3	European Energy Regulators White Paper #3 Facilitating Flexibility , May 2017
4	CEER White Paper (no. I) on Distribution and Transmission Network Tariffs and Incentives , May 2017
5	CEER White Paper (no. II) on Technology that Benefits Consumers , May 2017
6	European Energy Regulators' Overview Paper, "Initial Reactions to the European Commission's proposals on Clean Energy" , January 2017
7	Joint ACER-CEER response to European Commission's Consultation on a new Energy Market Design , October 2015