

MEANINGFUL PRICE SIGNALS FOR EFFICIENT ELECTRICITY MARKET DECISIONS

PRICING POWER

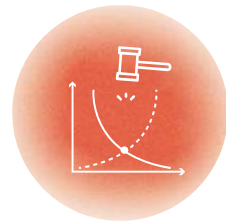
The key to the energy transition is to achieve an energy mix that meets the following requirements: **carbon-neutrality, security of supply, cost-efficiency.** Power wholesale markets contribute to each of these goals by providing incentives to bid at real marginal costs.

POLICY RECOMMENDATIONS



RELY ON PRICE SIGNALS

Meaningful price signals set incentives for secure, clean, and affordable electricity supply. Therefore, distortions of the wholesale electricity market price shall be avoided.

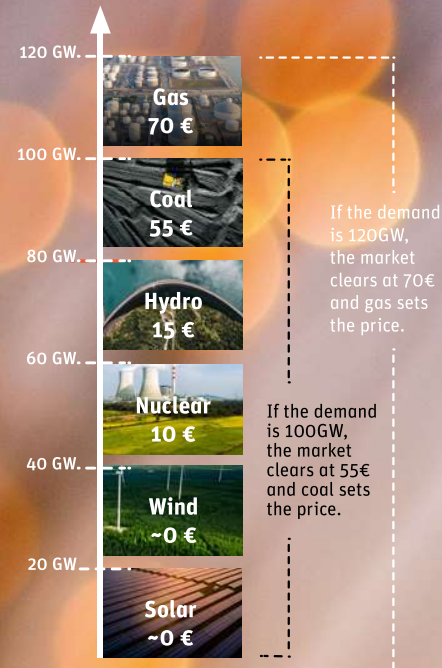


USE MARGINAL COSTS

Keep relying on price formation based on marginal costs which leads to the most efficient dispatch, lowers costs for consumers and sets the right incentives to invest in clean technologies.

PRICE FORMATION IN EUROPEAN SPOT MARKETS

The marginal pricing principle



Source: ACER 2021 ; RTE 2020.

Marginal pricing based on pay-as-clear:

- Enables all generators to cover their costs
- Ensures security of supply
- Incentivises generators to bid at their true costs
- Sets investment incentives in new clean technologies

The market price signal is decisive:

- Short-term: for generation & consumption decisions
- Long term: to provide investment signals for new energy assets

Dispatch based on marginal pricing serves various purposes:

- It guarantees the **lowest prices** for European end-consumers and industry as the generation with the lowest costs is dispatched first.
- The actual market price is where the **supply of power matches demand**. This price represents the highest price that a buyer is willing to pay and the lowest price a seller is willing to accept.
- The energy transition aims at replacing conventional power sources by low-carbon ones. There are political incentives designed to steer this development, for instance market-premium models for renewables or the European Trading System (emission allowances). As all renewable generation technologies compete on the power wholesale market, it is the best link for these instruments at **optimal costs** – this allocated energy mix is cost-efficient.

The price signal carries **precious information** for market participants, system operators, consumers, authorities, or any other stakeholder – as long as the price signal remains unbiased. It provides valuable feedback to identify oversupply, excessive demand, defective regulation – and even serves for the calculation of feed-in premium for renewables or for the definition of the imbalance settlement price.

By matching supply and demand, we at EPEX SPOT create these fair, transparent, and orderly price signals that trigger decisions on all levels of the power system.

FOCUS ON NEGATIVE PRICES AND PRICE HIKES



Negative wholesale market prices

Negative prices have caused concerns over the well-functioning of the wholesale power markets. Indeed, having to pay in order to sell a good that usually has an intrinsic value appears odd. In fact, negative prices need to be understood as adverse effects resulting from insufficient flexibility in the generation mix and obsolete support regimes. Market participants are either too inflexible to adjust their generation; or they do not face any incentive to avoid negative prices. This should be interpreted as a signal to revise public support regimes, and to invest in the development of more flexible means of production.



Price hikes in 2021/2022

The steep increase in power prices at the end of 2021 can be explained by fundamentals: the interplay of (a) a global gas shortage, (b) increasing prices for carbon emissions, and (c) relatively low generation from renewable sources. If renewables generation is low, a properly functioning market ensures that more expensive sources will replace the resulting gap. At the same time, when renewable generation is low, and considerable volumes need to be replaced by conventional plants, the need for certificates is increasing – and increasing demand results in higher prices.

Bidding zones

- Market prices result from supply and demand in a specific geographical area, the bidding zone. Bidding zones are the geographical foundation of the price formation.
- Any bidding zone review should be open to both mergers and splits. Using member state borders as boundary condition excludes configurations combining two or more countries that could turn out efficient in the future. We therefore recommend allowing mergers between bidding zones.

Capacity markets

- The Energy Only Market is the preferred solution to address the flexibility challenge. Market-based reference price signals shall be the basis of decision-making for market participants.
- There are EU member states where the further enhancement of the Energy Only Market proves inapplicable or insufficient to counter acute challenges to security of supply. In these cases, capacity mechanisms can be a reasonable complement to the Energy Only Market.
- These capacity mechanisms should be a technology neutral as possible and open to cross-border participation. If possible, capacity mechanisms should be designed as temporary instruments and re-evaluated after some time.

Balancing market

- Balancing markets provide a real time equilibrium between supply and demand to keep the 50Hz frequency.
- Power exchanges with their expertise can contribute to balancing services. This is for instance the case for the Frequency Response Auction in Great Britain, operated jointly by EPEX SPOT and National Grid ESO.
- The design of allocation schemes for balancing shall be chosen in a way that does not impair trading on wholesale markets.