

# WHAT IS A POWER EXCHANGE?

- **Power exchanges** are platforms where electricity can be traded in large amounts. Power exchanges are part of the so-called wholesale market for electricity.
- **Companies like electricity producers and energy suppliers** use the power exchange to sell their production and cover their demand (or the demand of their clients). End consumers get their electricity through suppliers and do not trade on the power exchange.
- **Thanks to the aggregation of offer and demand of all these companies**, the resulting price on the power exchange reflects the market situation and becomes a reference day by day – an orientation for all other trades of electricity, such as on futures markets or outside of the exchange.
- **The challenge:** Electricity cannot be stored as easily as other commodities (e.g., coal or gas). Therefore, production and consumption of electricity must always be balanced.
- **The power exchange, thanks to its method** of matching offer and demand and calculating prices, enables transparency with regard to the value of electricity and provides orientation through its price signal.

## POWER TRADING EXPLAINED

**Actors of the power market:** Electricity producers and utilities, regional and municipal suppliers, energy-intensive industrial consumers, aggregators and direct marketers, transmission and distribution system operators, banks and financial service providers, trading companies ...

... MEET AND INTERACT ON ...

... THE ELECTRICITY  
MARKET

Over-the-counter (OTC)  
trading

Organised  
trading on the power exchange

SPOT / SHORT-TERM  
(Day-Ahead and Intraday)

- Hedge against volume risk – stabilise profit or loss related to electricity generation & consumption
- Bilateral trading

- Hedge against **volume risk** – stabilise profit or loss related to electricity generation & consumption
- Anonymous trading & neutrality
- Producing a single reference price

FUTURES / LONG-TERM

- Hedge against price risk – stabilise profit or loss related to electricity prices
- Bilateral trading

- Hedge against **price risk** – stabilise profit or loss related to electricity prices
- Anonymous trading & neutrality
- Producing a single reference price

Optional for OTC, mandatory for exchange trading:  
Transactions are cleared and settled through a Clearing House

PHYSICAL DELIVERY ON THE ELECTRICITY GRID > BALANCED SPOT POWER MARKET

### Electricity: A special commodity with a fundamental role for society

Electricity has become the most important energy commodity of our time. Sectors like transportation gradually replace fossil fuels with electricity. Its demand is rising in Europe and worldwide. In tomorrow's carbon-neutral world, electricity will be at the very heart of our lifestyle.

## Liberalisation & the energy transition decentralise the electricity sector...

The way we produce power is shifting from a few large fossil-fuelled and nuclear power plants to thousands of small, decentralised production units – wind turbines, solar panels, biogas plants and more.

In parallel, liberalisation is shaking up the energy industry in itself:

- there are more and more actors of all sizes which offer electricity;
- historical energy giants split up into production, transmission, and supply;
- industries start to cover their demand on the wholesale market and offer their flexibility.

EU regulations, the so-called energy packages, have sped up this process of liberalisation since 1996.

**Their goal: to foster competition at all levels along the value chain of electricity.**

## ... and the market brings all actors together

Liberalisation has resulted in the creation of an electricity market, where all these actors meet and try to sell their electricity production or buy it based on demand. This is the moment where power exchanges emerged – they operate the so-called organised markets that are anonymous, transparent and provide standardisation of products and processes.

**An energy supplier providing electricity to households now has two options:** First, they can call different energy producers, compare prices and agree on a bilateral transaction with one of the producers. This is called over-the-counter, or OTC trading.

The second option is the organised market operated by power exchanges. It has various advantages: it pools liquidity, brings transparency and standardisation of products, rules and procedures, transparent emergence of a single reference price, payment and delivery security, and, last but not least, anonymity.

## Organised trading – transparent and anonymous

**Any company willing to trade electricity and fulfilling the admission requirements can become an exchange member.** This is why power exchanges provide a gateway for new entrants. They can submit orders for buying or selling power, which are then registered in an order book. Based on the order book, power exchanges then calculate a market price via a matching algorithm. The trades result from a large, open and transparent competition between the orders of the exchange members.

On the short-term electricity market (Day-Ahead and Intraday), or spot market, all transactions result in a physical delivery on the grid – a fundamental difference to the futures market. On this spot market, companies can balance their portfolios near to real-time, and mitigate their volume risk.

## Power exchanges facilitate the decarbonisation

Today, power exchanges contribute to the security of supply for millions of people and increase social welfare for Europeans by making competitive prices possible.

However, new challenges lie ahead. Global warming affects us all. Power exchanges are therefore evolving by offering new trading products and markets, to better meet the needs of renewable energies – and to pave the way for the decarbonisation of our society.

