

THE FUNCTIONING OF THE ELECTRICITY SYSTEM



HOW DID THE EUROPEAN ELECTRICITY MARKET DEVELOP?

The construction of the electricity market in Europe: the contents of 4 energy packages

1996 : BEGINNING OF THE LIBERALISATION OF NATIONAL MARKETS

- ▶ End of production monopolies
- ▶ Non-discriminatory access to the network
- ▶ Industrial consumers free to choose their supplier

2003 : THE LIBERALISATION OF NATIONAL MARKETS CONTINUES

- ▶ The activities of the generation, transmission, distribution and supply of electricity become legally distinct.
- ▶ Professional customers (2004) and households (2007) free to choose their supplier

2009 : ENTRY OF LIBERALISED NATIONAL MARKETS IN THE SINGLE EUROPEAN MARKET

- ▶ Definition of common rules (network codes and guidelines)
- ▶ Creation of authorities to draw up and administer them (ENTSO, ACER)

2019 : ADOPTION OF AN ENERGY-CLIMATE INTEGRATED APPROACH

- ▶ 2030 Climate goals
- ▶ Removal of obstacles hindering the wholesale market's operations
- ▶ Promotion of consumer engagement



Until the end of the 1990s, the electricity systems of the Member States were dominated by vertically integrated national monopolies. In France, EDF was in charge of the generation, transmission, distribution and the commercialisation of electricity.

The 1996 European directive was the starting point for the liberalisation of national electricity markets with the aim of creating an internal energy market. In particular, it brought an end to import, export and generation monopolies, provided a non-discriminatory access to the network and introduced for industrial customers the possibility to choose freely their electricity supplier, with a gradual market opening. RTE, the French electricity transmission system operator, and the French energy regulator (CRE), were created in 2000.

The 2003 directive deepened this liberalisation by reinforcing the independence of DSOs and TSOS, through the legal separation of electricity generation, transmission, distribution and supply activities and by setting up a calendar to plan the total market opening to competition for all market segments (companies and local authorities in 2004 and households in 2007). ERDF, the French transmission system operator, was created in 2008 (renamed Enedis in 2016).

While the 1996 and 2003 directives set the foundations for liberalisation, it was **the energy package of 2009** that enabled the **actual integration of national electricity markets into a European single market**, by establishing common rules (network codes and guidelines), and creating authorities responsible for designing and enforcing these rules: **ENTSO-E** (European Network of Transmission System Operators for Electricity) and **ACER** (Agency for the Cooperation of Energy Regulators).

The Fourth Energy Package of 2019 was the first package to adopt an integrated energy-climate approach. Through the Governance regulation and revisions to directives on renewable energies, energy efficiency and the energy performance of buildings, it has established a framework aiming at reaching the climate objectives of the European Union for 2030¹. The other texts on the internal electricity market are designed to help markets adapt to these new goals and remove obstacles to the smooth operation of the market. They include:

- On the wholesale market: the obligation for transmission system operators to ensure that at least 70% of interconnection capacities are available on the market for cross-border trade.
- On the retail market: the creation of a special status for self-consumers and energy communities, and the obligation for suppliers with over 200,000 customers to offer dynamic electricity price contracts.

On the electricity network: limited possibilities for system operators (DSOs and TSOs) to use storage infrastructures and the creation of the **DSO Entity** - an association involved in designing network codes and guidelines concerning distribution system operators.

¹ These goals are particularly focused on achieving a reduction of 40% of greenhouse gas emissions in 2030 compared with those recorded in 1990, ensuring that 32% of final energy consumption is composed of renewable energies, and on improving energy efficiency by 32.5%.

