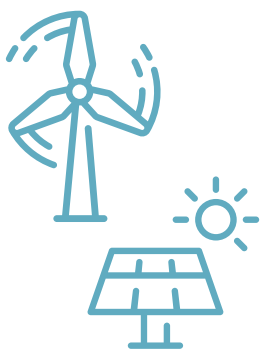


THE FUNCTIONING OF THE ELECTRICITY SYSTEM



WHAT POLITICAL FRAMEWORK WILL ENABLE THE EUROPEAN ELECTRICITY SYSTEM TO MEET THE CHALLENGE OF CARBON NEUTRALITY IN 2050?

In order to align its policies with its goal to reduce greenhouse gas emissions by 55% in 2030, compared to 1990, the European Union adopted the “Fit for 55” legislative package, several key measures of which have had, and will have, a major impact on the European electricity sector, namely:



The revision of the Renewable Energy Directive (RED III), which will play a determining role in increasing the generation of renewable electricity. In clearer terms, **the EU will have to increase the proportion of renewable energies in its global energy consumption to 42.5% by 2030¹**. This revision also contains binding targets regarding renewable energy consumption for the transport, building and industrial sectors.



¹ In the EU, the proportion of the final consumption of energy generated by renewable sources reached 22.1% in 2020. France was the only country in the European Union to have failed to reach its goal for 2020, with a proportion of renewables of 19% instead of 23% in its final energy consumption. In 2023, this percentage was 22% for France and 25% for Europe (source: Eurostat).



The revision of the **Energy Efficiency Directive (EED)**, which has stepped up the goal of final energy consumption reduction of the EU to **11.7% by 2030**, compared to the energy consumption forecasts set out in 2020. In addition, this revision dedicates the **“energy efficiency first” principle**, which obliges Member States to make sure that their energy

efficiency measures, including flexibility solutions for the electricity system and demand participation, are taken into account and assessed when energy policies and investments decisions are made.

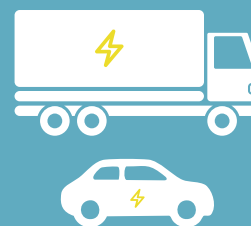


The revision of the **Energy Performance of Buildings Directive (EPBD)**, according to which any new buildings in the EU must be **zero-emission from 2030** (2028 for public buildings). In order to decarbonise the building sector and promote the electrification of heating (notably, by opting for the installation of heat pumps), the Member States will have to **stop granting subsidies for the installation**

of fossil fuel boilers from 2025, towards a complete ban by 2040. They will also need to install infrastructures aimed at stepping up the roll-out of electromobility, such as charging points in buildings and pre-cabling to enable the installation of future charging infrastructures.

The revisions of the rules concerning the **CO₂ emission performance standards** for passenger cars, as well as for heavy-duty vehicles, which set the **goals for transport decarbonisation**. These rules stipulate that it is **strictly forbidden to sell new cars that emit CO₂**

for use after 1 January 2035 and that **CO₂ emissions of heavy duty vehicles and coaches must be reduced by 90% from 2040** (compared to 2019).

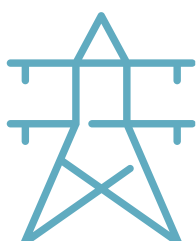


The **Alternative Fuels Infrastructure Regulation (AFIR)**, designed to rise to the challenge of the integration of a growing number of electric vehicles in the electricity network. It sets the goal for the EU to equip itself with fast charging stations

by 31 December 2025² for electric cars and vans that must be installed every 60 km throughout the TEN-T core network (Trans-European Transport Network).

The revision of the **European Emissions Trading System (ETS)**, which plays a fundamental role in eliminating the use of fossil fuels from the generation of electricity by applying European carbon pricing. This revision has set the **goal for the reduction of the emissions of sectors covered by the ETS to 62% by 2030** (compared

to 43% before the revision) and widened the scope of the application of the ETS to include maritime transport³. It is also setting up a distinct ETS (called “ETS2”), which covers the building sector, road transport and small industry and will be effective as from 2027.



The revision of the **regulation relative to the EU's Trans-European Networks for Energy (TEN-E)**, which sets new rules to help further modernise and decarbonise the cross-border energy infrastructures of

Member States, highlighting the key role that electricity networks play in the energy transition.

² With a power of at least 150kVA.

³ Concerning large vessels with a gross tonnage of over 5,000 tons.