



The EDF group shares the key findings of its report on the modulation of its fleet

In light of the growing use of modulation¹ across its electricity generation fleet, EDF, as a responsible operator, has carried out a comprehensive 360-degree assessment to evaluate the industrial, organizational and social impacts. The study aims to provide clear documentation of the concrete effects of modulation on the operation of its production assets.

EDF's electricity generation fleet contributes to the stability of the power system, notably thanks to its capacity for modulation, taken into account from the design phase of its facilities and, in particular, its nuclear facilities, to enable flexible operation.

This flexibility has evolved significantly in recent years:

- Between 2019 and 2024, the volume of nuclear modulation doubled, increasing from 15 TWh to more than 30 TWh. In 2025, the nuclear fleet modulated by 33 TWh.
- Today, modulation also occurs during the day, particularly during periods of high solar generation.
- More frequently, modulation can even lead to the shutdown of nuclear reactors.
- The cumulative operating time of pumped-storage hydropower plants was significantly higher in 2025 than in previous years.
- Over the same period, the number of shutdowns and restarts of the combined-cycle gas plants in the thermal fleet doubled.
- The increased flexibility required of EDF's generation assets is notably leading to higher maintenance costs for all these facilities.

This development regarding modulation is mainly the result of the expansion of renewable generation sources - solar and wind - in France and across Europe, against a backdrop of stagnant electricity consumption

As part of the third French multi-year energy programme (PPE3) process, work has been undertaken to establish a consolidated approach and an overall assessment of electricity system costs. EDF is contributing to this effort, drawing on the analyses and insights from the modulation report.

To reduce production overcapacity and manage the industrial, economic and social impacts associated with increasing modulation, a clear priority emerges: accelerating the electrification of end uses. The Group is fully committed to this objective.

[**Click here to read the report \(in French only\).**](#)

¹ The term "modulation" refers to situations in which a reactor operates at a power level below its maximum capacity or is shut down, excluding shutdowns related to fuel reloading, maintenance activities, unplanned outages, or limitations arising from environmental or regulatory constraints.

About EDF

A major player in the energy transition, the EDF Group is an integrated energy company active across the entire value chain: generation, distribution, trading, energy sales and energy services. A global leader in low-carbon energy, with 520 TWh of carbon-free electricity generated in 2024 (94%) and a carbon intensity of 30 gCO₂/kWh, the Group has developed a diversified production mix mainly based on nuclear and renewable energies (including hydropower) and is investing in new technologies to support the energy transition. EDF's purpose is to build a CO₂-neutral energy future that reconciles the preservation of the planet, well-being and development, through electricity and innovative solutions and services. The Group supplies energy and services to approximately 41.5 million customers⁽¹⁾ and generated €118.7 billion in revenue in 2024.

⁽¹⁾ The customer portfolio includes electricity, gas and recurring services contracts