# Roadmap to EU climate neutrality – Scrutiny of Member States



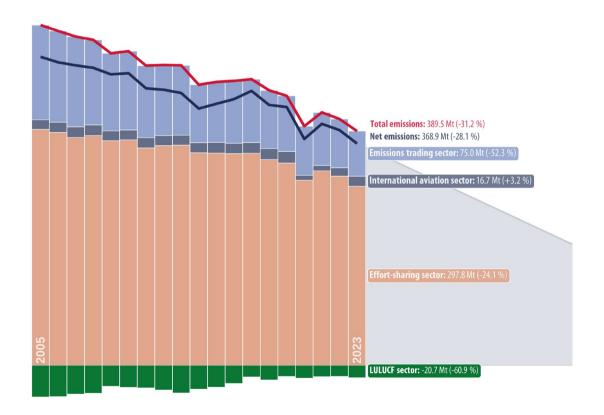
## France's climate action strategy

France is <u>legally bound</u> to reach climate neutrality by 2050. In 2023, the country accounted for 12.4 % of the EU's net greenhouse gas (GHG) emissions and achieved a net emissions reduction of 28.1 % compared with 2005. Between 2005 and 2023, France's total emissions decreased by 31.2 %, but its carbon sink in the land use, land-use change and forestry (LULUCF) sector declined by more than half (Figure 1). While the emissions from sectors under the EU emissions trading system (ETS) decreased by 52.3 %, those from effort-sharing sectors fell by only 24.1 %. To stay in line with the new EU objective of a 55 % net emissions reduction, France must consider <u>reducing</u> its emissions by 5 % per year between 2022 and 2030 and substantially increasing its carbon sink.

The European Commission <u>assessed</u> France's <u>draft</u> updated national energy and climate plan (NECP), submitted in November 2023, and made <u>recommendations</u>. The <u>final</u> updated NECP was tabled in July 2024.

In a 2023 <u>survey</u>, 52% of French, compared with an EU average of 46%, identified climate change as of the four most serious problems facing the world. Most expect the EU (65%) and/or national government (61%) to tackle climate change. 46% find it to be a personal responsibility.

Figure 1 - France's greenhouse gas emissions in million tonnes (Mt), 2005-2023



Data source: European Environment Agency (<u>EEA</u>), 2024.

This briefing is one in a series covering all EU Member States.





#### France's starting point

Through the Energy and Climate Act, adopted in 2019, France is legally bound to achieve carbon neutrality in 2050 by dividing emissions by more than six compared with 1990 (Article L100-4 of the Energy Code). In line with this goal, the national low-carbon strategy (SNBC) defines the target trajectory for emissions reductions and sets emissions caps, carbon budgets, over successive 5-year periods. The SNBC-2, adopted in 2020, set the budgets from 2019 to 2033. The new 5-year SNBC-3 will update them and add the fifth carbon budget for the 2034-2038 period. The strategy also provides guidelines and targets, translated into laws, for implementing the climate objectives in all economic sectors. An indicator set was developed to measure progress on the strategy. The national plan for adaptation to climate change (PNACC-2) for the 2018-2022 period is the second component of the French climate policy and its new edition (PNACC-3) is currently being developed. France's energy policy is driven by the multi-annual energy programme (PPE). The current PPE-2 establishes the priorities for action between 2019 and 2028, and sets out the overall objective for each type of energy. The third editions of these three strategic documents should have been adopted in 2024 but this has been postponed until 2025. The updated NECP is based on the provisional reference scenario, developed in the SNBC-3 project, which models the distribution of effort by sector by 2030, as well as on the provisions of the PPE-3 preliminary draft. At local level, communities with more than 50 000 inhabitants carry out GHG emissions inventories and develop plans to coordinate strategic and operational objectives relating to climate mitigation and adaptation, renewables, energy efficiency, and air quality.

France has set the <u>objective</u> of reducing its GHG emissions by 50 % compared with 1990 by 2030. In 2005, its total emissions amounted to around 566 million tonnes of  $CO_2$  equivalent (MtCO<sub>2</sub>e). In 2023, they fell by 31.2 % under the 2005 level. France reduced the emissions covered by the effort-sharing legislation for the 2013–2020 period by 21.5 % compared with 2005, and over-achieved its 2020 objective (a 14 % reduction). In 2023, these emissions were 24.1 % below the 2005 level. As regards the renewable share in final energy consumption, the country missed its 2020 target, while on energy efficiency, it achieved the <u>2020 individual targets</u> on both primary and final energy consumption. Since 2005, France's per capita emissions have been declining progressively, remaining below the EU average. In 2023, they amounted to 5.7 tCO<sub>2</sub>e, a 37 % decrease compared with 2005. France also reduced its economy's carbon intensity by 43 % between 2005 and 2023.

France climbed 12 places in the 2025 <u>Climate Change Performance Index</u> (CCPI), with a 'medium' rating in GHG emissions and energy use, and a 'low' rating in renewable energy and climate policy. The CCPI ranks countries based on their climate protection performance using primarily quantitative data, with experts providing qualitative evaluation of a country's forward-looking climate policies.

#### Climate action governance

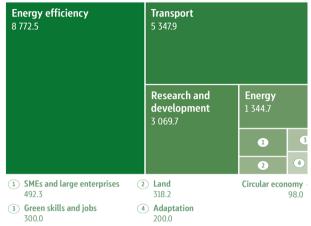
In November 2018, the French President established the <u>High Council on Climate</u> (HCC), an independent body of experts, in charge of providing insight on the government's climate policy. The HCC submits an <u>annual report</u> on the progress towards climate mitigation targets. Every 5 years, it publishes a report on the SNBC and carbon budgets proposals, as well as on the emissions reduction trajectory the government committed to following. The government is legally bound to respond to the HCC report and to submit its <u>reply</u> to the parliament. From October 2019 to June 2020, a panel of 150 citizens – the <u>Citizens' Convention on Climate</u> – was tasked with making proposals to achieve the country's 2030 emissions reduction target in a spirit of social justice. The convention's proposals were reshaped and incorporated into the <u>Climate and Resilience Act</u>, published in August 2021. The <u>General Secretariat for Ecological Planning</u>, established in July 2022 under the prime minister's direct authority, is in charge of providing cross-cutting coordination and monitoring the policies supporting the European Green Deal. The <u>National Council for Ecological Transition</u>, a forum for debate and consultation between authorities and stakeholders since 2013, is consulted by the government for opinion on a question or a bill, and can also issue own-initiative opinions.

#### Climate action in the national recovery and resilience plan

France submitted its <u>national recovery and resilience plan</u> (NRRP) to the Commission on 28 April 2021. Following to the 2022 <u>revision</u> of allocations, the plan was <u>amended</u> in July 2023, and now includes 73 investments and 24 reforms. The overall EU financial contribution to the <u>French</u>

NRRP, to which a REPowerEU chapter was added, amounts to €40.3 billion in grants only. The remainder of the plan's cost, around €1.7 billion, will be covered by national means. By the end of 2023, €23.4 billion had been disbursed. The green transition is the cornerstone of the updated NRRP, with 49.7% of grants allocated to measures supporting climate objectives; this is 7 percentage points higher than in the initial plan. The largest green measures concern the support for the railway sector (€4.1 billion), thermal renovation of public buildings (€3.8 billion), energy renovation of private housing (€3.2 billion), development of green innovation solutions (€1.6 billion), and decarbonised hydrogen (€1.3 billion).

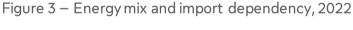
Figure 2 – NRRP climate dimension (€ million)

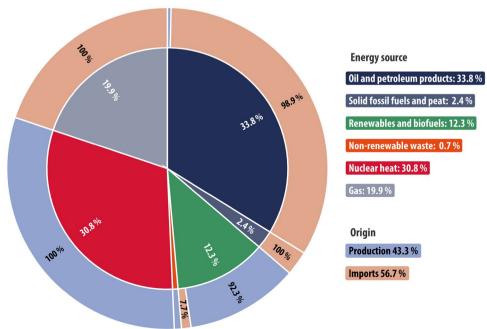


Data source: <u>European Commission</u>, 2023; graphic by Lucille Killmayer, EPRS.

### **Energy situation**

In 2022, <u>primary energy production</u> in France fell, owing mainly to the decline in nuclear production. Fossil fuels, almost all imported, represented more than half of the country's energy mix (Figure 3). Oil and petroleum products were the main source of energy, reaching a share of 33.8%, while natural gas and solid fossil fuels made up 19.9% and 2.4% of the country's energy mix respectively. France plans to accelerate <u>fossil fuel phase-out</u> by setting out specific pathways to this end in its revised energy programme (PPE-3).



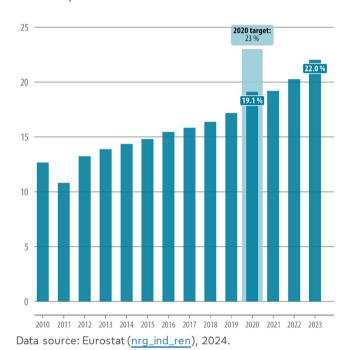


Data source: Eurostat (nrg\_bal\_sd), 2024.

The updated NECP includes <u>ambitious targets</u> for reducing oil and natural gas-based primary energy consumption. France also plans to close, or decarbonise, its remaining coal-fired power plants by 2027. Nuclear, considered a low-carbon energy and produced entirely in France, was the second largest source of energy, with a share of 30.8 % in the 2022 energy mix, far ahead of renewables, whose share was 12.3 %. Nuclear energy is the largest source of electricity generation. In 2022, its share in total <u>electricity production</u> was exceptionally low (63 %) owing to shutdowns of nuclear installations, making France a net importer of electricity for the first time since 1980. Nuclear production recovered in 2023, and national <u>primary energy production</u> rebounded, now representing 56 % of the energy supply. The revival of nuclear power is one of four strategic objectives to decarbonise the energy mix. France is planning to add six new reactors to the 56 already present in 18 power stations.

In 2023, renewable energies had a 22% share in gross final energy consumption (Figure 4). They were mainly used for electricity, heating and cooling, and transport. Wood energy and hydropower remain the most developed, but the wind, photovoltaic and heat pump energy sectors have made significant progress in recent years. Although renewables have been growing steadily for several years, their share in 2023 remained below the binding 2020 target. France has not yet covered the shortfall in its 2020 target by paying statistical transfers from countries that have exceeded their target. The country's binding national target of 33% renewable share in 2030 is still well below the indicative objective of 44 % resulting from the formula set out in the Governance Regulation.

Figure 4 – Renewable energy share in final energy consumption



## Sectoral challenges and strategies

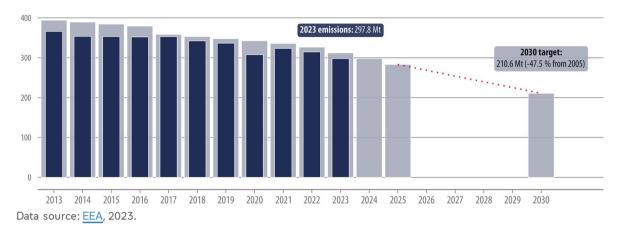
In 2023, transport remained the main source of GHG emissions (123.8 MtCO $_2$ e) in France, with the highest share in total emissions (31.8%), far ahead of the buildings and tertiary sector (20.9%), industry (18.65%) and agriculture (16.1%). In all sectors, the emissions remained under 2005 levels; however, those from transport and agriculture fell by only 12.6% and 15% respectively. Energy industries, which had the second lowest share of total emissions (8.3%) in 2023, achieved the largest emissions reduction (51.7%) compared with 2005.

Reducing GHG emissions from industry is one of the strategic priorities of the <u>France 2030</u> investment plan. Companies are being asked to draw up decarbonisation roadmaps for the most emitting industrial sites in order to receive financial support from the state. A new <u>green industry law</u> aims to mobilise private financing. Moreover, several measures are planned to encourage <u>energy efficiency actions</u>.

Emissions from transport, buildings and agriculture, as well as from waste and small industrial installations, are covered by the EU effort-sharing legislation, which establishes binding GHG emissions targets for each Member State and sets up <u>annual emissions allocations</u> (Figure 5 below). The revision of the <u>Effort-sharing Regulation</u> (ESR) in 2023 raised the national targets for 2030. France has been assigned a reduction target of 47.5 % compared with 2005. In 2023, the emissions

in effort-sharing sectors decreased by 24% compared with 2005, reaching their lowest level since 2013. However, <u>projections</u> show that by 2030, France will miss its target by 1 percentage point, even with additional measures implemented.





In the transport sector, France aims to improve access to <u>low carbon mobility</u>, encouraging the purchase of electric cars through various <u>tax and support/incentive schemes</u>, such as <u>leasing schemes</u> for low-income households. The aim is to reach <u>66 % of electric cars</u> in new car sales by 2030. The deployment of seven million public and private recharging points by 2030 is set as an objective by law. France seeks to increase public transport traffic by 25 % by 2030, and plans to invest €100 billion to support rail transport. The use of sustainable aviation fuels and biofuels is also expected to increase.

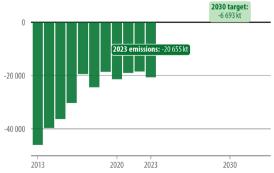
On buildings, various <u>energy renovation measures</u> to support households have been set up, such as the progressive income-based aid 'MaPrimeRénov'. The owners of the most energy-intensive housing must undertake renovation works. District heating networks will be developed, and 300 000 oil-fired boilers and 350 000 old gas boilers will be replaced annually with heat pumps in residential buildings. The construction of nearly zero-energy buildings is supported by the buildings environmental regulation RE2020.

Emissions in agriculture are expected to <u>decrease</u> by 1% per year until 2030. To reduce methane emissions, financial support is offered to improve manure management, as well as the energy

performance of farms through <u>biogas</u> <u>production</u>. Under the <u>Label Bas-Carbone</u> certification framework, projects have been developed to promote GHG emissions reduction and carbon storage in soils and the biomass.

France's LULUCF sector is a net carbon sink, absorbing more GHG than it is emitting (Figure 6). By 2030, the country <u>must reduce</u> its LULUCF emissions by 6 693 kilotonnes of  $CO_2e$  (ktCO $_2e$ ) compared with its average emissions in 2016, 2017 and 2018 (where accounting adjustments may occur). In 2020, the baseline was -27 353 ktCO $_2e$ .

Figure 6 - LULUCF emissions in France



Data source: <u>EEA</u> (2030 target is based on 2016–2018 baseline), 2024.

<u>Projections</u> show that France is not on track to meet this target, as its carbon sink has more than halved in the last 10 years. This is <u>explained</u> by the decline in tree growth and the high tree mortality as a result of drought, fires and disease. To preserve and regenerate the forest sink, France intends to <u>adapt</u> its forests to climate change through a large-scale forest renewal plan. In the short term, incentives for afforestation and heightened requirements for forest soil preservation will be applied.

#### Latest policy developments

Since 2022, ecological planning has become the centrepiece of France's climate and energy strategy. In September 2023, France adopted a dedicated plan structured around six themes broken down into 22 actions. A dashboard of 250 indicators quantifies the key levers of planning in the major sectors. The plan also proposes a reference trajectory for adapting to climate change, based on a level of warming in France of 2° C in 2030, 2.7° C in 2050 and 4° C in 2100. Following this trajectory, PNACC-3 will tailor the actions to the anticipated needs and vulnerabilities, and prepare the country to adapt to climate change gradually by developing sectoral plans for essential infrastructure (water, transport, energy, telecommunications) and services (school and health).

To share the effort at <u>decentralised level</u>, the government has proposed emissions reduction targets by region and sector, asking regional authorities to amend them and to prepare regional roadmaps taking into account local realities. Moreover, <u>sectoral decarbonisation roadmaps</u> implementing the carbon budgets are being developed, as provided for in the Climate and Resilience Act. It is <u>estimated</u> that by 2030 and beyond, all sectors will need to multiply their annual emissions reduction rates by a factor ranging from 1.2 for buildings, to between 3.5 and 5 for the transport and energy sectors.

Latest national <u>estimates</u> show that France reduced its total emissions by 5.8 % between 2022 and 2023 and met its 2019–2023 total carbon budget (excluding LULUCF). However, France exceeded its net carbon budget, which includes the carbon sink, since all <u>sectors</u> met their emissions caps, except waste management and LULUCF.

On 4 November 2024, the government submitted the first drafts of the <u>SNCB-3</u> and <u>PPE-3</u> to a <u>public consultation</u> open to contributions until 16 December. In October 2024, it transmitted a <u>multiannual strategy</u> for financing the state's ecological transition and energy policy to the French parliament, to be included in the debate on the 2023–2027 public finance programming law.

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