

»» Energy transition in France – winds of change with Nicolas Hulot



No. 150, 17 November 2017

Authors: Christoph Seitz, Dr Holger Höfling, phone +49 69 7431-2334, holger.hoefling@kfw.de

The French government of President Emmanuel Macron is committed to the Paris climate agreement and seeking a leading role in international climate policy. In July 2017 the responsible minister, Nicolas Hulot, presented the new 'Plan Climat'. Is the country meeting its current climate targets, and what do the new plans of the minister involve?

Falling short in meeting ambitious climate targets

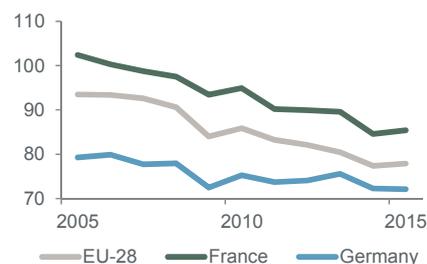
The French Energy Transition for Green Growth Act of August 2015 provides the framework and basic targets for transitioning to a low-carbon economy. Specific measures towards implementation by 2023 were set out in the October 2016 Multiannual Energy Plan (PPE). In its energy transition act, France undertakes to reduce greenhouse gas (GHG) emissions by 40% by the year 2030 against the reference year 1990. This is in line with EU targets. France even aims to achieve a GHG reduction of 75% by 2050. In 2015 GHG emissions in France were down to 85% of the reference level of 1990, a reduction of 15%. For comparison, Germany limited its GHG emissions by 28% in the same period (Figure). But compared with 2005, France achieved a reduction of 17%. The French energy transition act also sets out the long-term goal of securing 32% of final energy consumption from renewable energy by 2030. In fact, the share of renewable energy (RE) in gross final energy consumption grew by 5.7 to 15.2 percentage points between 2005 and 2015.¹ Measured against projection of the previous development the goal of securing 23% of gross final energy consumption from RE by 2020 does not appear realisable. Germany is also at risk of missing the interim target of generating 18% of gross final energy from renewables by 2020.

'Plan Climat': France's phase-out of coal and CO₂ neutrality

The 'Plan Climat' is designed to make the Paris agreement irreversible and improve the quality of life in France. From 2040 onwards, no more fossil fuels are to be used for power generation and the five active coal-fired power plants are to be shut down by 2022. Coal, oil and natural gas combined contributed 8.6% to power generation in 2016, coal solely 1.4%.² In Germany, on the other hand, brown coal and hard coal-fired power plants accounted for 40.1% of electricity generation. France intends to be CO₂ neutral in 2050. From then on, anthropogenic emissions are to stop exceeding the absorptive capacity of the ecosystem. To make CO₂ emissions more costly, emitters not subject to the European Emissions Trading System are to be charged with a tax that is to rise to EUR 100 per tonne of CO₂ by 2030.

Figure: Greenhouse gas emissions in France, Germany and the EU

2005–2015, base year 1990



Sources: EU Commission (2017), German Federal Environment Agency (2017)

End of combustion engines in 2040: promoting electro-mobility and challenging car manufacturers

The French government wants diesel and petrol-fuelled vehicles to vanish from the market by 2040. According to the 'Plan Climat', these requirements would force French automakers to become more innovative and take a lead role in the

market. In 2015 Peugeot, Citroën and Renault were already the vehicle manufacturers with the lowest CO₂ emissions in an international comparison.³ The French government has also introduced a scrapping scheme for older diesel vehicles and is subsidising clean new vehicles such as electric cars with EUR 10,000. The market share of electric cars in 2016 was in fact around 1.5% higher than in Germany.⁴

Clean energy as a target, nuclear power remains dominant

Consequently, France is also aiming for carbon-free power generation. Around 19.1% of electricity was generated from renewables in France in 2016.⁵ That share is to grow to 40% by 2030. The contribution of renewables to power in generation in Germany was 30.3% in the same year. Nuclear energy remains the dominant source of electricity in France with a share of 72.3%. The new climate plan does not explicitly provide for a phasing-out of nuclear energy. But the law provides for reducing the share of nuclear energy in electricity generation to 50% by 2025. So far France has decided to take only its oldest nuclear power station in Fessenheim off the grid. The shutdown involves paying compensation of around EUR 490 million to the operator. Recently, Minister Hulot did announce the phasing out of another 17 nuclear power plants by 2025 is not realistic.

Conclusion

Like Germany, France has so far been able to only partly fulfil its climate targets. The new government is now planning a coal phase-out by 2022, a zero-emission vehicle market by 2040, and CO₂ neutrality by 2050. It wants to combine these projects with a reduction in nuclear power if possible, although some questions still need to be answered. Overall, France maintains its long-term commitment to climate action and continues to set itself ambitious goals. ■

¹ Eurostat (2017)

² German-French Office for the Energy Transition (2017)

³ European Environment Agency (2017)

⁴ International Energy Agency (2017)

⁵ German-French Office for the Energy Transition (2017)