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NATIONAL ENERGY AND CLIMATE PLAN ANALYSIS: FRANCE

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For a transition that sets us on a both smooth and ambitious path to secure the EU's climate and REPowerEU goals, the National Energy and Climate Plans (NECPs) must detail a comprehensive gas consumption reduction strategy, complete with actionable milestones.

To this effect, E3G assesses whether the NECPs support a smooth transition of the gas sector against six benchmarks. Meeting these benchmarks will ensure that the EU and its member states reduce their vulnerability to supply shortages and that infrastructure plans support the European Green Deal.

Assessment of France's NECP: Summary

France's commitment in its draft 2023 NECP to reduce greenhouse gas emissions and adapt energy networks is commendable.¹ The significant reduction in gas consumption signals a positive shift, but the absence of matching adjustments to the gas grid raises concerns.

Its plan also lacks specificity in certain areas such as the phasing out of fossil fuel subsidies. In addition, the draft NECP falls short in addressing the socio-economic effects of the expected gas consumption decrease as comprehensive measures to mitigate potential impacts on employment and skills are missing.

¹ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**



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An overview of how France’s draft 2023 NECP performs against the six benchmarks explained in our main briefing note is given in Table 1. The details on each benchmark are set out in the main section of this analysis.

Table 1: Rating France’s draft 2023 NECP against E3G’s six benchmarks – overview.

Benchmark	Key take-away	Rating
1. Aligning national gas consumption with overall EU trajectory.	The significant 46% drop in gas consumption by 2030 represents a notable shift in France’s energy dynamics. To meet these ambitious goals, France should prioritise speeding up the reduction of gas use, particularly in critical sectors such as heating and power generation.	Data and plan
2a. Assessing the feasibility and scale of gas networks to be decommissioned.	France’s strategy to adapt energy networks to declining gas demand, incorporating alternative energy carriers and adjusting pipelines to mitigate stranded costs sets a commendable example. This approach should serve as a model for other member states anticipating a substantial decrease in gas demand by 2030.	Data and plan
2b. Preparing the gas network for a reduction in fossil gas use.	The NECP does not outline adjustments to the existing gas transmission or distribution grid, despite anticipating a substantial 46% reduction in gas consumption over the next six years.	Data only
3. Planning the phase-out of fossil gas subsidies.	Together with Germany, France ranks first in the EU in absolute fossil fuel subsidies and has higher fossil fuel subsidies as a share of their GDP than the EU average. While France has taken steps to reduce fossil gas subsidies and implement supportive measures for households, a comprehensive plan to phase out fossil fuel subsidies is absent.	Data only
4. Assessing the potential for renewable gas development.	France is actively pursuing an ambitious strategy for the development of renewable gases. While its forthcoming hydrogen strategy promises progress in decarbonisation, the details remain unclear, especially regarding financing mechanisms for hydrogen pipelines.	Data only
5. Assessing and addressing the social and economic impact of gas consumption decrease.	France’s plan remains silent on this aspect, despite the expectation that member states will strengthen planning within the NECPs to ensure a fair and just transition.	No data
6. Phasing out long-term gas contracts in line with declining fossil gas use and climate targets.	The draft NECP is silent on long-term fossil gas contracts.	No data

Detailed assessment against the six benchmarks

1. Aligning national gas consumption with the overall EU trajectory

As stated in point 1.1 of the European Commission’s guidance on NECPs, “the draft updated national plans should reflect this increase of ambition. Member States should fully embed the new and revised energy and climate targets included in the Fit for 55 and the REPowerEU proposals even though the legislative process for adoption is not yet concluded.”²

The new French draft NECP significantly increases its ambition compared to the 2019 NECP (Figure 1):

- > The 2019 NECP projected primary gas consumption to decrease between 8.5% and 16.9% (to 41–45 billion cubic meters (bcm) in 2030), depending on the sub-scenario.³
- > The new projected primary fossil gas consumption is 26.6 bcm in 2030,⁴ indicating a 46% decrease from 2019.⁵

Gas consumption projections in the France draft NECP

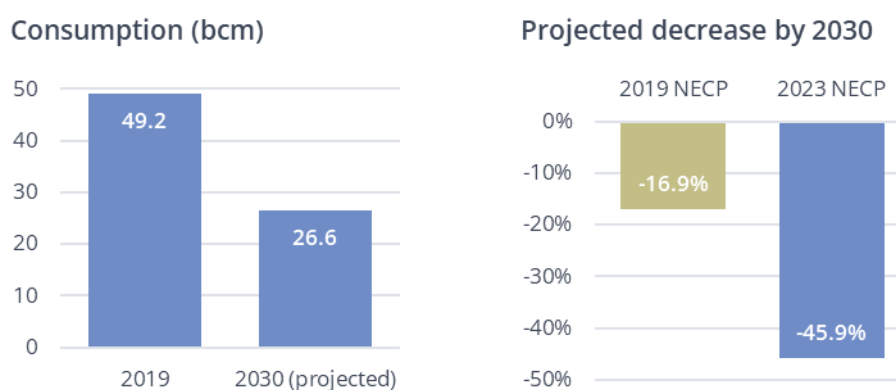


Figure 1: France’s draft 2023 NECP shows a marked increase in ambition in reducing gas usage. This is true both compared to the 2019 baseline and to the target in its 2019 NECP.

² European Commission Guidance to Member States for the update of the 2021-2030 national energy and climate plans, **Guidance to MS for updated NECPs 2021-2030 - European Commission (europa.eu)**, 2022

³ France, March 2020, **Integrated National Energy and Climate Plan for France (PDF)**, p. 314

⁴ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 7

⁵ According to the energy statistics from the French Ministry for the Ecological Transition, the gas consumption in 2019 was 481 TWh, or 49.2 bcm: **Bilan énergétique de la France pour 2019**



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The French energy strategy is geared towards phasing out fossil fuels, although it does not specify a particular exit date.^{6,7} The objective is to reduce fossil energy consumption by two thirds by 2035, compared to 2012 levels.⁸ The strategy is built on three pillars:

1. Reducing energy consumption through sufficiency and efficiency.
2. Generating electricity using nuclear and renewables.
3. Decarbonising the energy mix.

The latter goal encompasses meeting electricity demand from decarbonised, domestic sources. The draft 2023 NECP highlights that 90% of the French electricity mix is already decarbonised, and the current gas-fired capacity stands at 12.8 gigawatts (GW) or around 10% of total capacity.⁹

Regarding households, France plans to ensure 20–25% of domestic gas boilers are replaced by 2030.¹⁰ For industry, the NECP envisions replacing fossil gas both through electrifying processes and the use of hydrogen, and by reducing its overall consumption by energy efficiency measures.¹¹ Detailed numbers are not provided but general figures may be gleaned from the graphs included.

France is actively working towards a significant reduction of fossil gas consumption, a notable change for its energy systems. To meet these ambitious goals, France should prioritise reductions in critical sectors such as domestic heating and industry.

2a. Assessing the feasibility and scale of gas networks to be decommissioned

Although not in the European Commission's NECP guidelines, understanding the future utilisation of the distribution network and its eventual decommissioning is crucial to plan for the expected decrease in gas use.

⁶ Apart from coal whose use for electricity production will be ended by 2027.

⁷ The French multiannual energy planning sets the main framework for energy planning and will be updated in 2024, **Programmations pluriannuelles de l'énergie (PPE) | Ministère de la Transition Écologique et de la Cohésion des Territoires (ecologie.gouv.fr)**

⁸ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 16

⁹ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 24

¹⁰ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 174

¹¹ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p.184



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According to the NECP, the entirety of the fossil gas transmission network will remain essential for seasonal, regional and inter-state balancing to meet demand. Only a limited number of transmission pipelines would undergo conversion for hydrogen or CO₂ transport. By 2050, some compressor stations and a limited number of dual pipelines might be decommissioned.¹²

The plan is less clear on the conversion of the distribution network; it only mentions the network's role in integrating biogas and necessary adjustments, without giving any concrete measures or targets.¹³

The French draft NECP recognises the imperative of local planning for the decline in fossil gas consumption in the coming years. This entails identifying areas where fossil gas will no longer be used due to reduced consumption and the transition to alternative sources. However, the plan is not precise enough in relation to the decision-making processes and where the responsibilities to implement those decisions will lie.

France's strategy to adapt energy networks for declining gas demand, incorporating alternative energy carriers and adjusting pipelines, sets a commendable example. Specifics on distribution network development are not entirely clear, but the local planning approach highlighted in the NECP is proactive. This approach identifies areas where fossil gas will no longer be used; it should serve as a model for other member states anticipating a substantial decrease in gas demand by 2030.

2b. Preparing the gas network for a reduction in fossil gas use

Point 1.2 of the European Commission's guidance for the NECP, "Increase energy security and affordability, towards a more resilient Energy Union", specifies that "Member States are also encouraged to reflect progress and planning on the infrastructure projects that are identified as significant to meet the European Green Deal and the REPowerEU objectives."

¹² European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 5, refers to the April 2023 study by CRE on the future of gas infrastructures up to 2030 and 2050, **Avenir des infrastructures gazières aux horizons 2030 et 2050, dans un contexte d'atteinte de la neutralité carbone.**

¹³ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 73



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This is especially important in the context of an expected gas demand reduction, where infrastructure networks will have to adapt and in certain cases downsize to enable an orderly transition.

The French draft 2023 NECP emphasises this need to adapt existing energy networks to accommodate the decreasing demand. It involves facilitating the transmission of energy carriers like biogas and hydrogen while adjusting pipelines to account for a reduced demand.¹⁴

The French draft NECP proposes a halt on new concessions for fossil gas distribution networks and a reduced extension of existing networks to mitigate stranded costs.¹⁵ However, the NECP is not precise enough on the adjustments to the existing gas transmission or distribution grid, despite anticipating a substantial 46% reduction in gas consumption over the next six years.

3. Planning the phase-out of fossil gas subsidies

Point 1.1 of the NECP guidance specifies that “the updated plans should reflect the international developments related to the Paris Agreement, in particular the process set out by the Glasgow Climate Pact for raising mitigation ambition. This contains several decisions on energy and climate planning, including [...] the phasing out of fossil fuel subsidies, and the consideration of further actions to reduce non-CO₂ emissions, including methane, by 2030.”

France spent 0.49% of its GDP on fossil fuel subsidies in 2021, which is above the EU average of 0.35%.¹⁶ That year, France and Germany jointly held the top position for the highest fossil fuel subsidies, each amounting to €13 billion. France spent about €2bn in subsidies on fossil gas; this is 15% of its total fossil fuel subsidies for that year, below the EU average of a 27% share of fossil gas in total fossil fuel subsidies.

¹⁴ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 73. It mentions a study carried out by the French regulator (CRE) and the directorate of energy and climate (DGEC) about the declining methane gas consumption and its implications on infrastructure development. The study is currently being updated to include a financial trajectory.

¹⁵ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 144

¹⁶ European Commission, Directorate-General for Energy, Bon-Mardion, J., Casteleyn, M., Queenan, J. et al., 2023, **Study on energy subsidies and other government interventions in the European Union – Final report – 2023 edition**, p.28



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Approximately 38% of France’s total energy subsidies support fossil fuels. While more than half are planned to end before 2025, the remaining subsidies lack specified timelines, with some extending beyond 2030.¹⁷

While France has taken steps to reduce fossil gas subsidies and implement supportive measures for households, a comprehensive plan to phase out fossil fuel subsidies, particularly for fossil gas, is notably absent.

4. Realistically assessing the potential for renewable gas development

The European Commission guidance states that “in their updated NECPs, Member States are encouraged to integrate a component on sustainable biogas and biomethane production and use, assessing the national potentials and defining trajectories to reach those by 2030 and 2050.”

France has set a target to increase the production capacity for renewable gases to 4.2 bcm a year by 2030, with an objective of injecting 15% of renewable gases into the gas network by the same year. The hydrogen production target has been raised to achieve a production capacity of 6.5 GW, or roughly 1 million tonnes (Mt) by 2030.¹⁸

The 2030 biomethane target represents an increase from the current plan.

Most of the production will come from intermediate energy crops and livestock manure, contributing to a range of 4.8–8.1 bcm per year through methanisation. Notably, the French NECP highlights the security-of-supply aspect of biomethane, emphasising its national production capacity compared to dependence on imported fossil gas.

An updated hydrogen strategy was unveiled in December 2023, aiming to decarbonise 430 kilotonnes (kt) of the current 900 kt produced by fossil fuels.¹⁹

France has set the goal to be a leader in decarbonised hydrogen, aspiring to manufacture the entire value chain by 2030.²⁰

¹⁷ European Commission, Report on Energy Subsidies in the EU, COM/2023/651 final, October 2023, [EUR-Lex - 52023DC0651 - EN - EUR-Lex \(europa.eu\)](#), p. 15

¹⁸ European Commission, November 2023, [France - Draft Updated NECP 2021-2030](#), p. 16

¹⁹ Modified French hydrogen strategy in consultation, [Consultation sur la nouvelle stratégie française de déploiement de l'hydrogène décarboné | Ministère de la Transition Écologique et de la Cohésion des Territoires \(ecologie.gouv.fr\)](#), December 2023

²⁰ European Commission, November 2023, [France - Draft Updated NECP 2021-2030](#), p. 80



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Any hydrogen for new uses is planned to be exclusively sourced from decarbonised sources, with a focus on priority sectors such as heavy transport and industry. The government has committed €9 billion to support the growth of the hydrogen industry up to 2030.²¹ The forthcoming hydrogen strategy which is currently in consultation will include targets of 6.5 GW of electrolyzers in 2030 and 10 GW in 2035, fuelled by either the electricity network or dedicated renewable electricity infrastructure.

France currently has no established mechanism for financing hydrogen pipelines.²² Several projects are expected to be financed by the Connecting Europe Facility, private capital and, to a lesser extent, the French State. The development priorities for hydrogen include establishing hydrogen hubs connected to storage infrastructure, followed by the eventual creation of a hydrogen transmission network.

France is actively pursuing an ambitious strategy for the development of renewable gases. While its 2023 proposal for an updated hydrogen strategy promises advancements in decarbonisation, the details, especially regarding financing mechanisms for hydrogen pipelines, remain unclear.

5. Assessing and addressing the social and economic impact of gas consumption decrease

Member states are supposed to “strengthen planning within the NECPs to ensure a fair and just transition, mitigating social and employment impacts, tackling labour and skills shortages, reducing energy poverty, and ensuring affordable access to essential services for all.”

It is noteworthy that France’s draft plan remains notably silent on this aspect, despite member states being expected to strengthen planning within the NECPs to ensure a fair and just transition.

The plan does mention the new Social Climate Fund which aims to reduce the dependence of vulnerable households exposed to energy poverty on fossil

²¹ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 58

²² European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 145



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fuels.²³ It further states that the final version of the NECP will deliver a strategy for the development of jobs and skills, including sectoral action plans.²⁴

6. Phasing out long-term gas contracts in line with declining fossil gas use and climate targets

Although not in the Commission's guidelines, a consolidated view of the long-term contracts of the main EU gas consumers would enable a comparison between the EU's expected gas volumes and its climate commitments.

Major gas and oil companies in France include Engie and Total Energies. Engie has signed a long-term contract with Semptra Infrastructure, which will deliver 1.2 bcm of liquefied natural gas (LNG) per year between 2027 and 2042 from the US. Total Energies signed a 27-year long contract with Qatar in 2023, supplying about 4.8 bcm annually in LNG from 2026 until 2053, breaching the date of 2049 to phase out long-term gas contracts recently agreed in the revision of the EU Gas Directive.²⁵

²³ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 74

²⁴ European Commission, November 2023, **France - Draft Updated NECP 2021-2030**, p. 82

²⁵ European Parliament, Revision of the EU Gas Directive, February 2024, **Carriages preview | Legislative Train Schedule (europa.eu)**



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About E3G

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E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

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