

114 million people live in rural areas across Europe. These communities matter and need to be understood. To deliver a just energy transition, policy should reflect conditions in rural areas. However, data is often difficult to find.

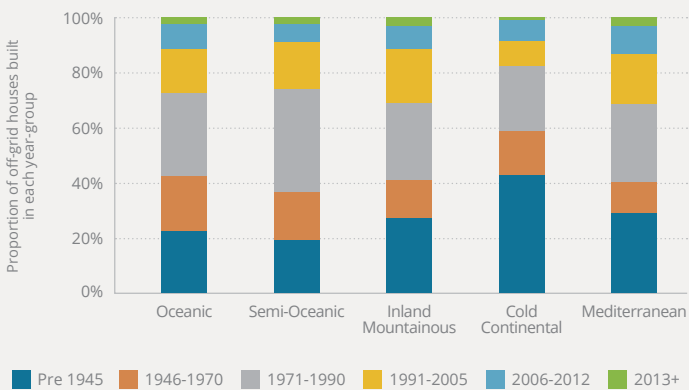
This series of country-profiles provides a simple overview of the key rural energy challenges in selected EU member states and brings together important data points in an accessible review.

Rural Energy Matters

- **The French rural building stock is old.** 69% of oil-heated properties were built before 1975. These properties are less energy efficient than modern buildings and thus harder to upgrade.
- **Fuel poverty is more likely to occur in rural areas.** 29% of households located outside of urban areas in France face energy vulnerability. These households need an affordable path to decarbonisation.
- **Rural air quality is a problem.** A third of rural air quality measurement stations reported particulate matter emissions above WHO guideline levels. Air quality is not just an urban issue in France.

AGE BREAKDOWN OF RURAL BUILDINGS

The majority of off-grid buildings are old, and built before 1990

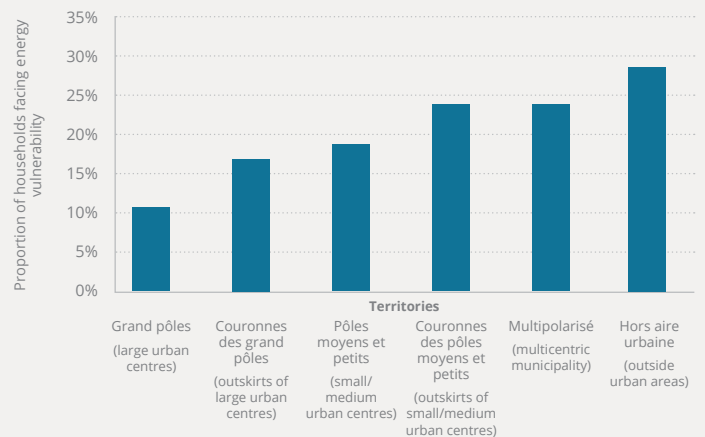


- Off-gas grid buildings were typically built before 1990, and in some climatic regions of France are even older. These buildings are typically less energy efficient than modern buildings.
- 43% of off-grid homes in the cold continental climatic region were built before 1945.

Source: [Insee](#)

ENERGY POVERTY IN RURAL FRANCE

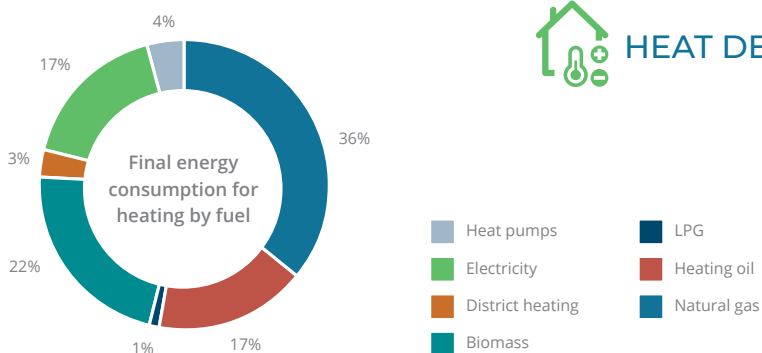
A greater proportion of households in rural areas face energy vulnerability



- Energy poverty is considerably higher for households located outside urban centres.
- 29% of households located outside of urban areas face energy vulnerability.

Source: [Insee](#)

HEAT DEMAND



Source: [DG Energy & ENTSO-E](#)

The majority of final energy consumption for heating in France is derived from natural gas (36%), biomass (22%) and electricity (17%) consumption.

In rural areas, off the gas-grid, the consumption of biomass and heating oil is very high. Heating oil is carbon intensive while both heating oil and biomass generate high local emissions.

In 2017, nuclear stations provided 72% of France's net power generation.

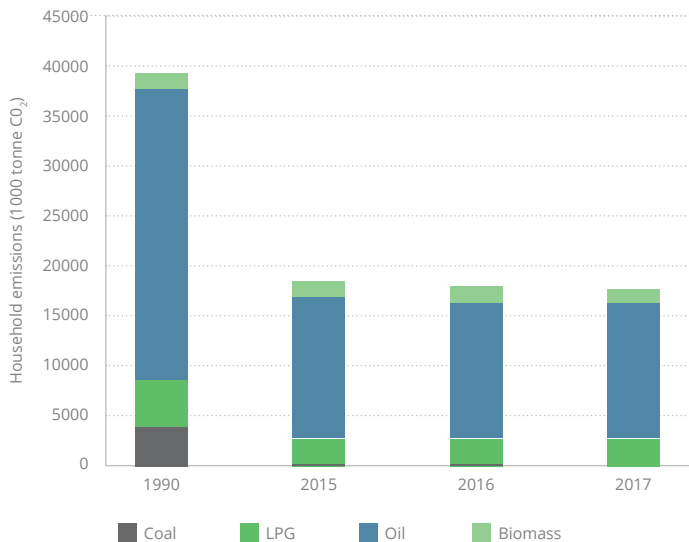


France - Rural Energy Data



RURAL CO₂ EMISSIONS

Off-grid household emissions have fallen over time



- France's greenhouse gas (GHG) emissions stand at 458 million tonnes (Mt) CO₂e. This is down from 546 MtCO₂e in 1990.
- Per capita emissions are at 6.6 tCO₂e, which is down 27% from 1995 levels (9.0 tCO₂e). However, over the past few years emission remain stable.
- CO₂ emissions from rural fuel* consumption have fallen by 55% since 1990.

Source: Service de la donnée et des études statistiques (SDES) and Eurostat energy balance data

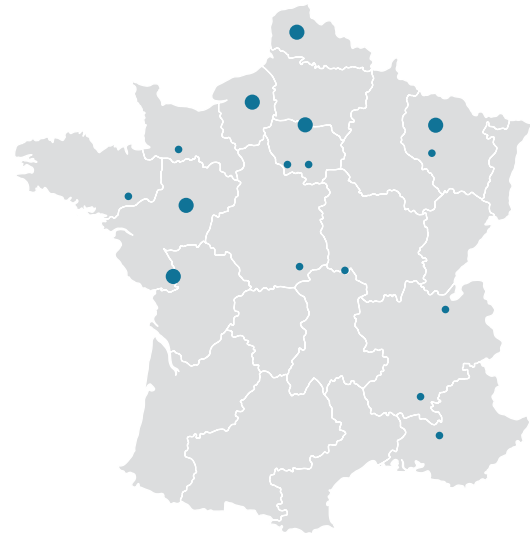
* here defined as heating oil, coal, LPG and biomass



RURAL AIR QUALITY CHALLENGES

Some rural areas also have air quality problems

Map of rural air quality stations reporting PM_{2.5} emissions above WHO guidelines in 2016



- In the EU, fine particulate matter (PM_{2.5}) exposure has been estimated to reduce life expectancy by more than 8 months. These fine particles can enter human bloodstreams and have a significant negative impact on health.
- 33% of rural air quality monitoring stations reported PM_{2.5} background emission levels in exceedance of WHO guidelines in 2016 (emission limits of 10 µg/m³ per calendar year).

Source: European Environment Agency

RURAL ENERGY MATTERS

Rural areas account for 20% of France's population. These remote communities are often not connected to the natural gas grid. Indeed 27,000 municipalities across France are not connected to the gas grid. As a substitute, heating oil is widely consumed for heating purposes.

Decarbonising heat will be necessary if France is to meet its climate change targets. To do this in a just and effective way, policymakers need to balance emission reduction, air quality and energy affordability challenges, all of which impact France's rural communities.



The Future of Rural Energy in Europe (FREE) initiative was created by SHV Energy in 2010 to promote the use of sustainable energy within rural communities. FREE is supported by a variety of stakeholder groups, together giving a voice to all those who believe that rural energy needs are important, and aiming to add new perspectives to the EU's energy and climate debate. Identifying untapped potential in Europe's rural areas to decarbonise and improve air quality in a cost-effective manner. Filling in rural energy data gaps. Engaging and supporting rural communities is essential if government energy, climate and environment policies are to be realised.