

SCENARIO 1 FRUGAL GENERATION

Significant changes in the way we travel, heat ourselves, eat, buy and use equipment will occur to achieve carbon neutrality without involving carbon capture and sequestration technologies, which are unproven and uncertain on a large scale.

New consumer expectations, but above all new practices, are expressed rapidly in consumption patterns. Growth in energy demand that depletes resources and degrades the environment is halted, due to behavioural, organisational and technological innovations. The transition is mainly driven by frugal use of resources due to active constraints and consumer self-restraint or energy sufficiency.

SOCIETY IN 2050...



Respect for nature and energy sufficiency

- Nature is protected, as a whole to which humanity belongs.
- Part of the production apparatus is based on low-tech, which is more robust and can be repaired by ordinary people.



Limitation of construction, rapid renovation and large-scale changes in lifestyle.

- Conversion of vacant housing and second homes into primary residences.
- Drastic reduction in the number of new buildings.
- Unparalleled level of energy renovation.
- Pooling of facilities in housing units.

Profound transformation of dietary habits and intelligent use of forestry resources

- More extensive agriculture with few synthetic fertilisers.
- Large areas of non-productive natural areas are developed.
- Improved sustainability of biological carbon sinks in the form of forests.



Three-fold reduction in electricity consumption for specific uses (household appliances, electronics, lighting and so on)

-30% Reduction in the average surface area of new houses

-60%

Meat consumption reduced by a factor of 3

A significant drop in demand for mobility

- More proximity and less mobility, favouring active modes: walking, cycling etc.
- Major drop in car and aircraft travel.
- Carpooling and hitch-hiking develop in rural areas.

Reduced industrial production and a market reoriented towards "Made in France"

- Reduced demand for products and services.
- An economy based on functionality and repair makes significant inroads.
- Local products are favoured by consumers.
- Production of certain industries is relocated.



-26% drop in miles travelled in total

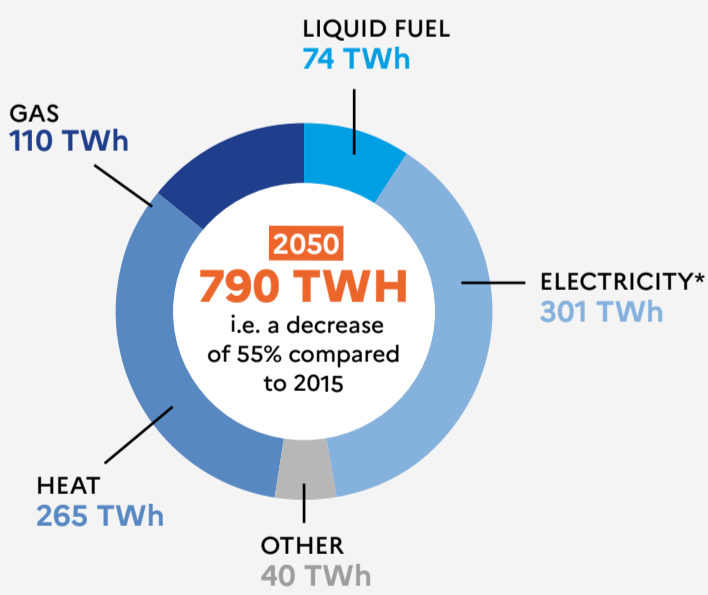
-45% less domestic goods traffic

70% of steel, aluminium, glass, paper, cardboard and plastic sourced from recycled materials

NB: the data shown in this infographic is defined in relation to the year 2015

Halving of overall energy demand

Final energy demand by carrier (with non-energy uses and excluding international bunker fuel)



Oil is limited to a few specific uses where it difficult to replace



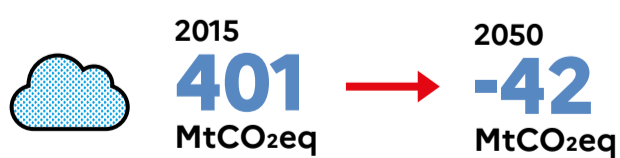
Gas follows the same trajectory of a very sharp reduction in consumption. It is almost entirely renewable



Hydrogen is mainly used to decarbonise natural gas supply

*Excluding intermediate consumption, mainly for production of H₂

GHG emissions controlled only by using biological sinks



Wood harvesting is stable.

Only **biological sinks** are brought into play (soils, forests, biomass).

Significant growth of maintained **forest** under extensive management.

Balance of CO₂ emissions and sinks in 2015 and 2050

