



RENEWABLE ENERGY POLICY REVIEW

FRANCE

France faces an energy import dependency close to average EU levels, with the majority of imports being oil. The share of gas, also imported, has been steadily increasing in recent years.

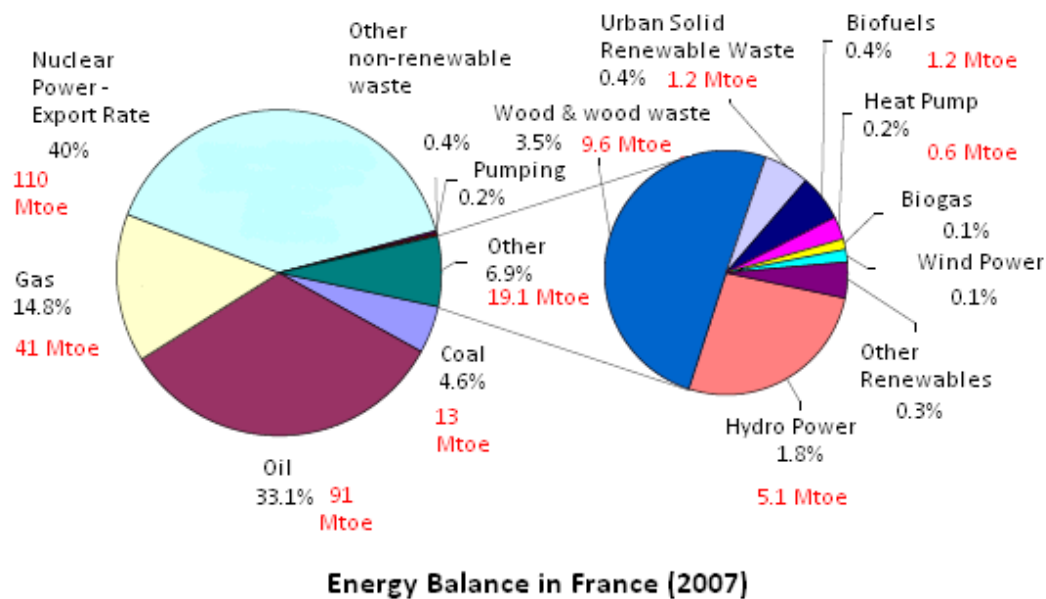
Electricity production in France is dominated by nuclear energy which amounts approximately to 77 % (2007) and hydropower.

Renewable sources such as biomass and hydro, participate to a significant extent to the energy mix. However, France is developing policies aimed at a more diversified mix increasing wind and photovoltaic electricity, solar energy for heat and biofuels. France has the second biggest potential in the EU in terms of wind energy and a very good potential in terms of solar and geothermal energy. All Renewable energy sectors have featured in 2007 significant growth rates. Despite these growth rates, the share of renewable energy in the energy mix does not increase as energy demand has been growing steadily.

KEY FIGURES¹

- The **share of RES in total primary energy consumption** was of 6.9 % in 2007 at 19.1 Mtoe with an increase of 6.9 % compared to 2006.
- The **share of RES in the final energy consumption** was 11% in 2007.
- The **share of RES in the gross inland electricity production** was 13 % in 2007.
- The **share of all biofuels** in the transport sector in 2006 was 3.57 % in 2007.
- France's energy dependence on imports amounted to 50.4 % in 2007.

¹ MEDDDAT/OE



Source: adaptation from MEDDAT

Technology Specific figures

- Wood represents 9.91Mtoe (2007) and is the main source of renewable energy in France (followed by hydro).
- Hydro Power reached 59,899tWh in 2007. However, its production remains weak compared to the average of the last 20 years. Hydropower provides 14.5 % of French electricity production and 86 % of renewable electricity in the country.
- Wind energy production reached 4,106GWh in 2007. The production increased by 85% compared to 2006. The installed Power capacity has increased by 300% compared to 2005, reaching 2,200MW.
- Photovoltaics features significant growth rates as well. Production in 2007 increased by 70%, reaching 39MWh of cumulated installed capacity

RES POLICY

RES TARGETS

Mandatory targets set by the Directive on the Promotion of the use of energy from renewable sources

- 23% share of RES on the final consumption of energy in 2020.
- At least 10% share of renewable energy in final consumption of energy in transport by 2020.

Indicative Target set by the RES- electricity European Directive from 2003²

- 21 % share of RES on gross electricity consumption by 2010

Indicative Target set by the European Biofuels Directive from 2001³

- Biofuels consumption of 5.75% of petrol and diesel use for transport in 2008. And 5.75% 3.57 in 2007

National Commitments

The 2005 French Energy law laid down the basis of French energy policy:

- 10 % of the energy consumption should come from renewable energy sources by 2010
- 50 % increase of renewable heat (which in the end should amount to 10Mtoe in 2005)
- 5.75% by the end of 2008, 7 % biofuels incorporated in 2010 and 10% in 2015. In September 2005, the Prime Minister presented measures to encourage the production of biofuels. The objective to incorporate biofuels at 5.57% initially anticipated for 2010 was expected to be attained in 2008.

In addition, new “grenelle de l’environnement commitments » are in the legislative process for adoption⁴. Some of the measures envisaged:

² Directive 2007/71/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market. Currently in force, sets targets up to 2010.

³ Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport. Currently in force, sets targets up to 2010, with indicative targets by 2005.

⁴ They are at the 1st reading in Parliament

- In new buildings, new energy performance norms will have to apply to public and tertiary buildings (primary energy consumption not exceeding of 50kWh/m²/ year in average) by 2010 and to all buildings by 2012. A “Positive energy building⁵” norm for all building will enter force by 2020.
- Existing buildings: a decrease of 38 % of the energy consumption of the existing building stock will have to be achieved by 2020.
- A target of 30% low energy farms by 2013.
- Increase of 20Mtoe of renewable energy production by 2020, shared as follows:

RES	Target by 2020 Mtoe <i>Grenelle environnement</i>	
Wind	5Mtoe	60TWh
PV	0,5Mtoe	5400MWc
Hydro	0,6Mtoe	
Biogas, renewable waste & other	1,2Mtoe	
Total R Elec	7,2Mtoe	
Thermal solar	0,9Mtoe	15 to 20 millions m ² installed
Wood	7,2Mtoe	
Geothermal & heat pump	2Mtoe	
Total R Heat	10Mtoe/y	

Progress towards the targets

The objective set for 2005 by the biofuels 2003/30/EC Directive hasn't been reached yet in France (2%). However, French government estimates that the objectives set for 2010 will be reached.

RES POLICY INSTRUMENTS

Support for RES electricity

Feed-in Tariffs

Feed-in tariffs were introduced in 2001 and modified in 2005 for photovoltaic, hydro, biomass, biogas, geothermal, offshore wind, onshore wind, and Combined Heat and Power.

⁵ A positive energy building produces more energy than it uses, thanks to energy efficiency and renewable energy technologies

Tariffs are guaranteed on 15 to 20 years. Tariffs were revised in 2006 and 2007 to take account of the investment and managing costs together with a premium taking into consideration improvements of air quality and reduction of greenhouse gases.

Resource	Technology	Support level [€cents/ kWh]	Feed-in tariff or premium?	Start year	Duration [years that an investor is entitled to support]
hydro	small	6,07 c€/kWh + premium between 0,5 and 2,5 for small installations + premium between 0 and 1,68 c€/kWh in winter according to the production's regularity	feed-in tariff	2007	20 years
wind	onshore	8,2 c€/kWh during 10 years, then between 2,8 et 8,2 c€/kWh during 5 years depending on the location's productivity.	feed-in tariff	2006	15 years
wind	offshore	13 c€/kWh during 10 years, then between 3 and 13 c€/kWh during 10 years depending on the location's productivity.	feed-in tariff	2006	20 years
biomass	Solid combustion	4,9 c€/kWh + premium for energy efficiency between 0 and 1,2 c€/kWh	feed-in tariff	2002	15 years

biomass	gasification (biogas)	Between 7,5 and 9 c€/kWh according to capacity + premium for energy efficiency between 0 and 3 c€/kWh , + premium for méthanisation of 2c€/kWh	feed-in tariff	2006	15 years
PV		- Métropole: 30 c€/kWh + premium for building integration of 25 c€/kWh - Corsica, Overseas departments, Mayotte: 40 c€/kWh , + premium for building integration of 15 c€/kWh.	feed-in tariff	2006	20 years
Geothermal		- Métropole : 12 c€/kWh , + premium of energy efficiency between 0 and 3 c€/kWh - overseas departments : 10 c€/kWh , + primum for energy efficiency between 0 and 3 c€/kWh	feed-in tariff	2006	15 years
Ocean energy		15c/kWh			20 years

A tender system exists for large renewable projects. Producers winning the tenders have a contract with the price they proposed in the tenders. In 2005, the French government made public its selection of tenders:

- 14 biomass projects (216MW) and one biogas project (16MW).
- An offshore wind project (105MW)

- 7 onshore wind farms (278MW).

The 2006 tender on Biomass projects with 300MW power capacity selected 22 projects.

A new tender was launched in December 2008 to select biomass projects that aims at 250MW of production.

PV Solar electricity

Measure to be soon implemented as foreseen in the “Grenelle law”:

- A tender will be launch to build by 2011, at least one PV plant in each region with a 300MW total power capacity.
- A simplified administrative procedure regime and the exemption of all fiscal tax for households equipped with an installation lower than 30 m².
- The designing of a new feed-in tariff for the installation of PV on professional tertiary buildings (supermarkets, large industrial or rural buildings...) at the level of 45 c€/kWh.
- Enlargement to all local authorities of the benefit of feed-in tariffs on electricity, in order to foster PV installations.

Tax credit:

In 2005, tax credits were set up (50% since 2006) for equipments using renewable energy source. This is now called, “sustainable development tax credit” regime and is extended to 2012.

Resource	Technology	Support level [% deduction from taxable profits]	Start year	End year	Comments
Solar	PV	50% of the equipment costs	2006	2009	For households and for installations until 3 kW
biomass		50% of the equipment costs	2006	2009	For households
Wind		50% of the equipment costs	2006	2009	For households
hydro		50% of the equipment costs	2006	2009	For households

Reduction in VAT- Tax

5.5% reduction in VAT for residential energy equipment using RES

Support for Heat

France has developed an extensive programme to encourage the use of wood fuel for heating in collective housing. As results, an increase of 37.5 % in 2007 of heating in collective housing unit compared to 2006. In domestic households housing, the Wood Energy Plan leads in 2007 to an increase of 82.5 % of the wood energy equipment sales for households, at 500 000 unit.

Tax credit:

In 2005, tax credits were set up (50% since 2006) for equipments using renewable energy source (efficient wood fired boilers, for household of the cost of equipment). Called now, "sustainable development tax credit", the regime is extended to 2012.

Resource	Technology	Support level [%/total investment]	Start year	End year	Comments
Solar	solar thermal	50% of the equipment costs	2006	2012	For households
Biomass	combustion	50% of the equipment costs	2006	2012	For households concerning the purchase of efficient wood fired boilers
Biomass plants	Combustion	subsidies up to 40% of investment costs	2006	2012	For businesses

VAT-reduced rates

Resource	Technology	Support level [% reduction of VAT]
For residential equipment using RES (purchase and installation)-	biomass boiler	5,5% reduction in VAT

Renewable Heat Fund (“Grenelle de l’environnement”):

In order to promote the use of renewable heat (wood, geothermal, solar) in collective housing, a new fund is set up. The budget is 1000 Million € for the 2009- 2011 period. Starting the 1/ 01/ 2009, the first call will be launch beginning of 2009.

Support for Biofuels

Quota Obligation

Law 2005-781 of July, 13 2005 setting the orientation of the French Energy Policy sets the following objectives for the incorporation of biofuels.

Resource	Quota in % (per year)	Year
Biofuels	5.75%	2008
	6.25%	2009
	7%	2010
	10%	2015

Tax exemption

There is a fiscal system of partial exoneration from the Interior Consumption Tax, which allows compensation for the cost of fabrication of biofuels compared to that of fossil fuels. This tax exemption is granted for biofuels produced by factories which have been selected in accordance with an invitation to tender published in the Official Journal of the EU. The amount of tax reduction is adjusted each year. For the year 2006, the total amount of fiscal exoneration for biofuels is in the order of 260M Euro (for FAME-25 euros/hl, Biodiesel synthetised-25 euros/hl, for FAEE-30 euros/hl, for ethanol -33 euros/hl and ETBE-33 euros/hl).

France also decided to accelerate E85 development in one hand and to increase the upper limit for the incorporation of FAME from 5% to 7% from January 2008.

E85: An agreement has been signed between professionals with the Prime Minster to allow the use of E85 in France in January 2007.

Fame: according to the Law of January2006, farmers are allowed to use pure vegetable oils to run agricultural equipment for an experimental one-year period.

Reduced Excise Tax on consumption

Resource	Total support level (= tax exemption incl. reduction of VAT to be paid)	start year	Comments
Ethanol / ETBE - (éthyl tertio butyl éther)	33 euros per hectoliter in 2007	2003	These amounts are adjusted every year
EMHV (biodiesel- ester méthylique d'huiles végétales)	25 euros per hectoliter in 2007	2003	These amounts are adjusted every year
EEHV(Biodiesel- ester éthylique d'huiles végétales)	30 euros per hectoliter in 2007	2006	These amounts are adjusted every year
Exemption of motor-fuel taxes for agreed biofuel plants			

General Tax on Polluting Activities

Operators (refiners, supermarkets and independents) who incorporate levels of biofuels inferior to the anticipated national objectives must acquit, according to the 2005 Financial Law a supplementary payment of General Tax on polluting activities. The rate of the tax decreases according to the amount of biofuels put on the market.

Sources:

European Commission Factsheets by Country

http://ec.europa.eu/energy/energy_policy/facts_en.htm

Member States Reports in the framework of the Directive 2001/77/EC on renewable electricity

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http://www.industrie.gouv.fr/energie/renou/f1e_ren.htm

French Environment and Energy Management Agency


http://www.ademe.fr/particuliers/Fiches/aides_financieres/index.htm

French Ministry of Ecology, Energy, Sustainable Development and Territory Management:

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