Annex France - Climate Targets

June 2025

1 France

There exist two separate plans in the NECP called the "multiannual energy program" (EPP) and the "national low-carbon strategy" (SNBC). The EPP is focused on the energy sources while the later is the carbon footprint and reduction of carbon emissions [3]. Therefore, the EPP has been the main source for this project.

This is also machine translated, but I have found less obvious errors while reading it so the translation might not be that inaccurate. It is hard to say, but I have tried with my b1 french to understand it and it seems mostly correct.

1.1 Supply

1.1.1 Percent targets

The percentage targets are given in a strange way in the NECP and I have chosen to not include them because of that. However they are found on page 8 and 9.

1.1.2 Capacity targets

These targets comes from the French NECP[1, 8] (for 2028 it is [1, 36]). These are the main numbers and have been used for the data set.

Installed cap in GW	2022	2028	2030	2035
Photovaltics	15.9	35.1-44.0	54-60	75-100
Onshore wind	20.6	33.2-34.7	33-35	40-45
Offshore wind	0.5	3.6	5.2-6.2	18
Hydroelectric	25.7	26.3		28.5

1.1.3 Climate targets

Franc wants to be carbon neutral by 2050 [3, 11].

1.2 Demand

The French demand section is one of the worse ones given how bug they are as a country. Thei NECP is very different from the more standard countries of the others and they present their numbers a lot differently. One can see the structure of their numbers in figure one. However, this is hard to read of and it is hard to have the numbers be use-able for this project.

Table 1: Gross final energy consumption (TWh)

	2021	2022	2023	Trend		SFEC	
				1 year	2 years	2024	2024
Solid biomass	114.3	104.9	100.3	107.8	102.4	102.4	110.3
Hydraulic (standardised)	61.0	59.9	59.2	58.5	58.5	58.5	58.5
Heat pump	42.3	47.9	53.1	58.2	58.3	58.3	56.1
Wind (standardised)	38.5	41.6	48.2	54.7	53.0	53.0	52.4
Biofuels	37.0	39.1	40.9	42.7	42.9	42.9	41.9
Other power supply chains *	25.8	30.7	33.7	36.0	37.0	37.0	39.8
Renewable cooling	1.2	1.9	2.0	2.1	2.4	2.0	2.0
Other heat supply **	18.0	20.3	22.3	24.3	24.4	27.5	27.5
Gross final consumption	338.1	346.4	360.7	383.0	379.5	388.6	
Gross final consumption of RES	174.2	181.0	195.0	1,048.1	1,050.0	1,004.4	1,014.3
Share of renewable energy (%)	19.4%	20.5%	22.2%	24.0%	23.7%	24.1%	

1.3 EV targets

The EV-target in France 5.5 mil for 2030 [2].

1.4 Heat pump targets

These nukbers can be found in table 1.

1.5 Storage

The objective of the French is to produce 6.5 GW of electrolysers in 2030 and 10 GW in 2035 [3, 78].

1.6 General demand

France aims to have 41.3 percent of its final consumption be produced by renewable sources by 2030.

	Objective	Horizon	Forecast (as currently modelled)		
Final energy	National Objective: move				
consumption ²	towards - 30 % in 2030				
	compared to 2012 (i.e.		1 381 TWh		
	1 243 TWh or 106,9 Mtoe)	2030			
	_				
	EU target of 28.6 %				
	compared to 2012				
Primary energy	EU target of - 36 %				
consumption ³	compared to 2012	2030			
	(1 844 TWh or 158,6	2030	2 239 TWh		
	Mtoe)				
Primary energy	Reduce coal-based		26 TWh in 2030 and 21 TWh in		
consumption for energy	primary energy	2030 and			
use – Charbon	consumption by 70 % in	2030 and 2035	20 111111112222		
	2030 and 75 % in 2035	2035	2035		
	compared to 2012				
Primary energy	Reduce natural gas-based				
consumption for energy	primary energy	2030 and	260 TWh in 2030 and 173 TWh		
use – Natural gas	consumption by 40 % in	2030 and 2035			
	2030 and 60 % in 2035	2035	and 2035		
	compared to 2012				
Primary energy	Reduce primary energy				
consumption for energy	consumption based on	2030 and	359 TWh in 2030 and 216 TWh		
use - Petroleum	petroleum products by	2030 and 2035	222 111111112222 4112 222 11111		
products	50 % in 2030 and 70 % in	2035	and 2035		
	2035 compared to 2012				
Final renewable energy	Renewable targets by				
consumption	sector:		~ 570 TWh in 2030		
	In 2030:				
	MINUTES: 54 to 60 GW	2030			
	Terrestrial Eolien: 33 to				
	35 GW				
	Eolien at sea: 3.6 GW				

Figure 1: France demand

References

- [1] "France 2030" Investment Plan Policies.
- [2] Marie Rajon Bernard. Charging infrastructure to support the electric mobility transition in France.
- $[3]\,$ NECP. France Final updated NECP 2021-2030 (submitted in 2024) European Commission.