

# Annex Greece - Climate Targets

Summer 2025

## 1 Greece

The Greek NECP is great document with a massive amount of usable information that I can plug straight into the data set. However, it has some issues with the english machine translation - it sometimes breaks the graphs and figures. There is also an error with the page number where it only gives one number instead of all of them.

### 1.1 Supply

#### 1.1.1 Percent targets

The objectives and forecast of the percentages have strange errors where the RES-gross is called "RES in grossFrench consumption Enr Earth". I have, therefore changed some of the names of the columns and kept the numbers the same

Table 1: HS 2 Quantification of NECP targets and indicators.

OBJECTIVES	Year 2030		Year 2035	Year 2040	Year 2050	
	EU objective	NECP forecast	E-DGS forecast	NECP forecast	EU objective	E-DGS forecast
RES-Gross	42.5%	43.0%	60.6%	77.2%		95.8%
RES-E	69.0%	75.7%	96.2%	102.8%	100.0%	100.8%
RES H&C		52.6%	60.6%	75.2%		84.1%
RES-industry		34.0%	43.0%	57.3%		65.8%
RES-transport	29.0%	13.4%	43.2%	69.0%		96.1%

[1, 34].

#### 1.1.2 Capacity targets

When it comes to the capacity targets there is a problem with the fact that most of the numbers are estimated through the TIMES model and other simulations [1, 34]. Which means that the numbers are generated by a system, but it is later referenced as targets like at page 123 where they write that "the above objective will be achieved through"[1, 123]. I have therefore chosen to interpret these numbers as targets.

Table 2: EE 3 Power plants installed by technology (MW).

Electric power (MW installed)	Year 2022	Year 2025	Year 2030	Year 2035	Year 2040	Year 2045	Year 2050
Photovoltaic	5,430	8,500	13,500	18,500	26,000	30,619	35,051
Wind onshore	4,702	7,000	8,900	9,500	11,000	13,000	13,000
Offshore wind	0	0	1,900	3,900	5,787	8,230	11,805
TOTAL	22,608	28,357	36,423	42,884	53,912	63,423	71,573

[1, 40]

## 1.2 Demand

### 1.2.1 General energy demand

This is the assumed general demand for Greece.

Table 3: Final Energy Consumption by Sector and Fuel.

Year	2022	2025	2030	2035	2040	2045	2050
<b>Sector in ktoe</b>							
Industry	2566	2492	2270	2126	2073	2001	1991
Residential	4278	4369	4178	4036	4011	3879	3784
Tertiary	2078	2242	2331	2436	2512	2607	2700
Transport	6918	7341	6878	6122	5395	4826	4595
Rural	271	344	350	345	340	345	342
<b>Fuel in ktoe</b>							
Ambient heat	445	584	846	1005	1149	1181	1176
Hydrogen	0	0	0	10	57	102	135

[1, 388]

### 1.2.2 Batteries and storage

Here the storage is given in MW with a split into hydroelectric and batteries. I'm not quite sure what "UN storage (abandoned MW)" means, but I've assume that it is a translation problem [1, 4]

Table 4: Evolution of electrical energy storage by technology - power (MW) and spatial capacity (MWh).

<b>UN storage (abandoned MW)</b>	<b>Year 2022</b>	<b>Year 2025</b>	<b>Year 2030</b>	<b>Year 2035</b>	<b>Year 2040</b>	<b>Year 2045</b>	<b>Year 2050</b>
Pumped storage hydroelectric	699	699	1,928	2,949	4,464	5,251	5,453
Batteries	0	0	4,325	6,850	8,725	10,375	12,025
TOTAL	699	699	6,253	9,799	13,189	15,626	17,478

### 1.2.3 Heat pumps

Here I have used the ambient heat that exist in the final energy consumption underneath this subsection - which I have placed as estimates and not targets.

## References

[1] NECP. Greece - Final updated NECP 2021-2030 (submitted in 2025) - European Commission.