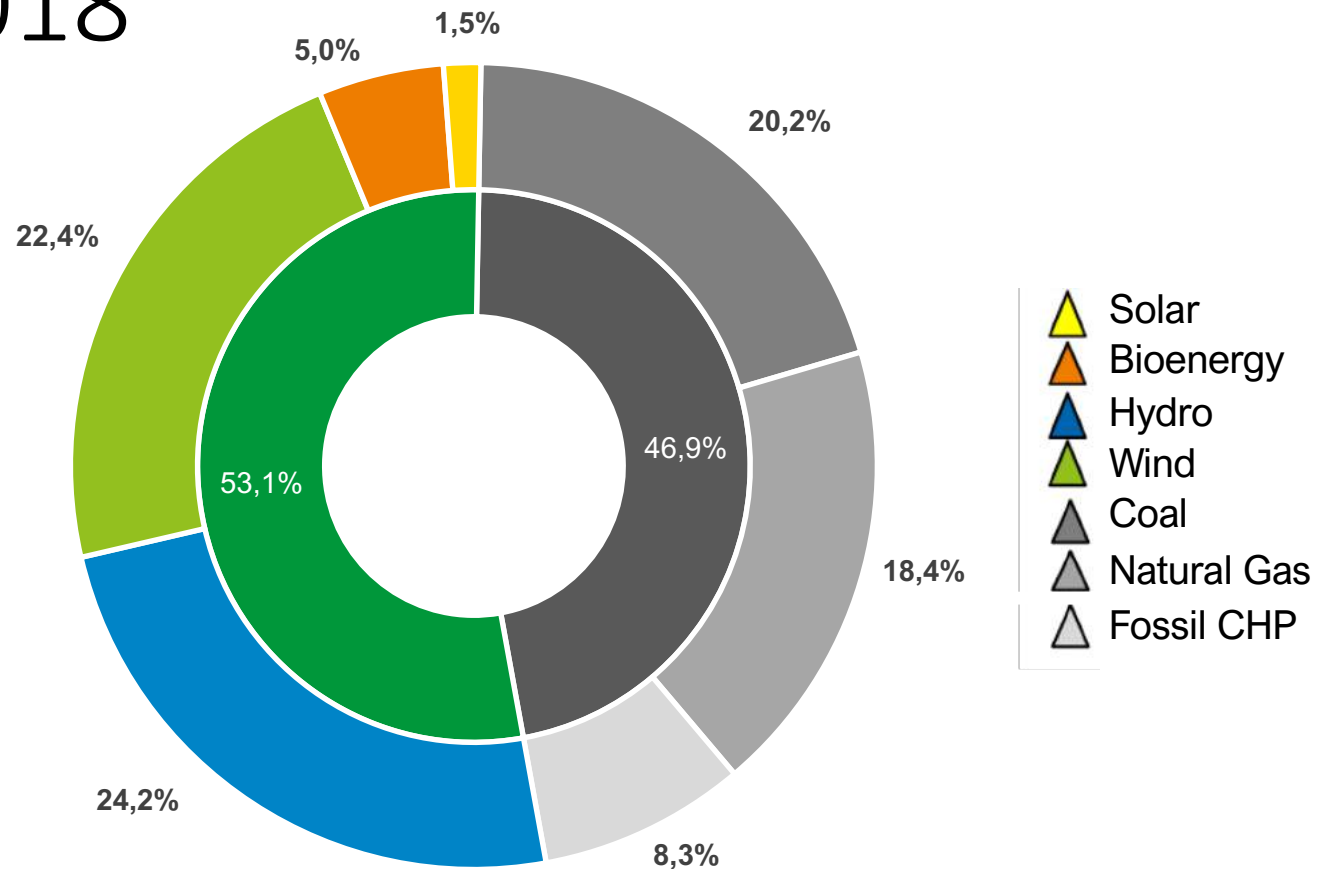


National Energy and Climate Plans - Targets

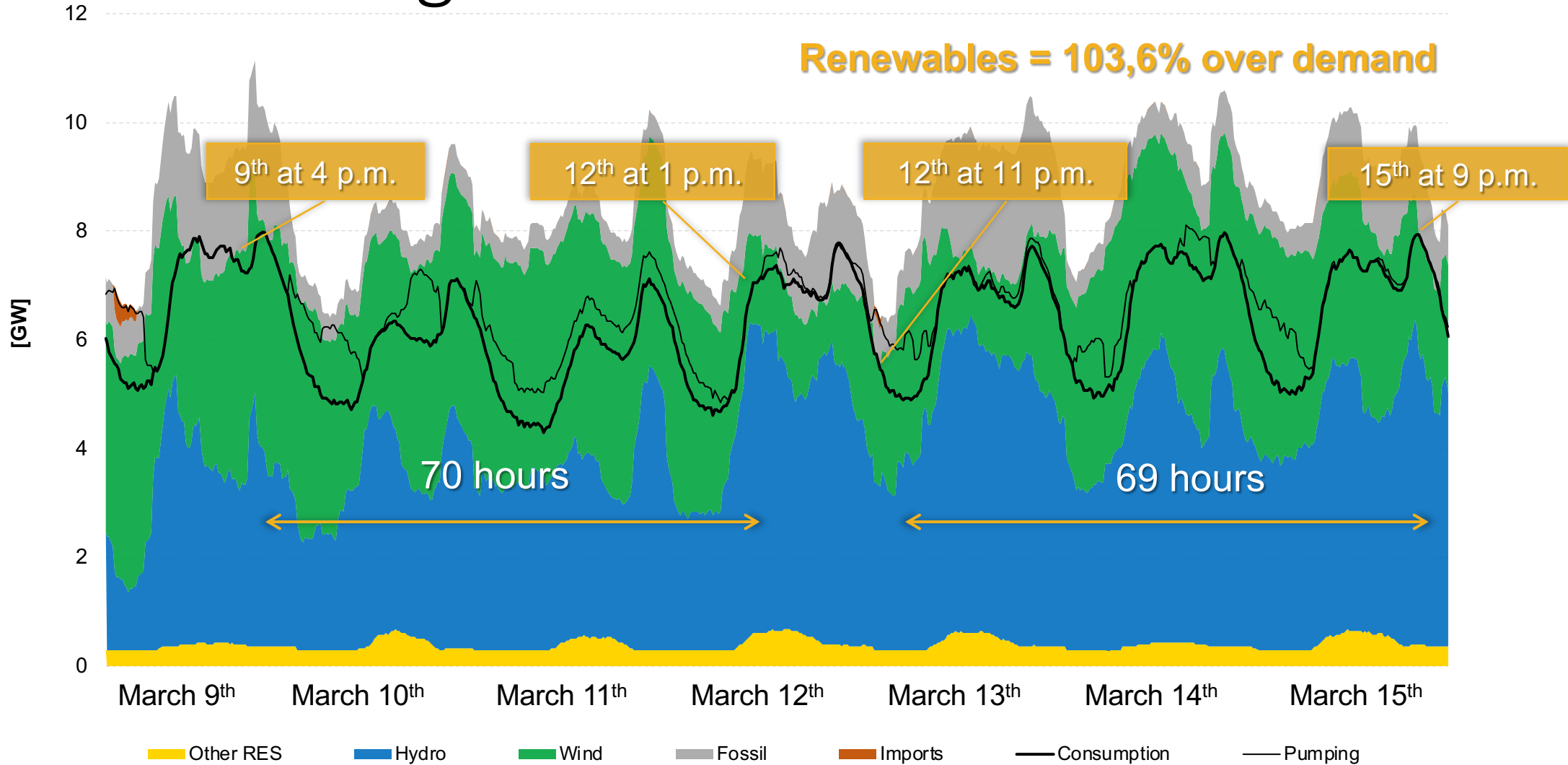
Country	Final energy consumption by renewable sources 2020	Final energy consumption by renewable sources 2030	Renewables in the power sector 2030	Source
Portugal	31	47	80,0	https://ec.europa.eu/energy/sites/ener/files/documents/portugal_draftnecp.pdf
Spain	20	42	74,0	https://ec.europa.eu/energy/sites/ener/files/documents/spain_draftnecp.pdf
France	23	32	40,0	https://ec.europa.eu/energy/sites/ener/files/documents/france_draftnecp.pdf
Italy	17	30	55,4	https://www.mise.gov.it/immages/stories/documenti/Proposta di Piano Nazionale Integrato per Energia e il Clima Italiano.pdf

Electricity Production in Mainland Portugal, 2018



- In 2018, renewable electricity represented 53,1% (29,3 TWh) of the overall electricity production in Mainland Portugal (55,2 GWh).

Load Diagram for March 2018



Energy Transition | Total Final Energy Consumption



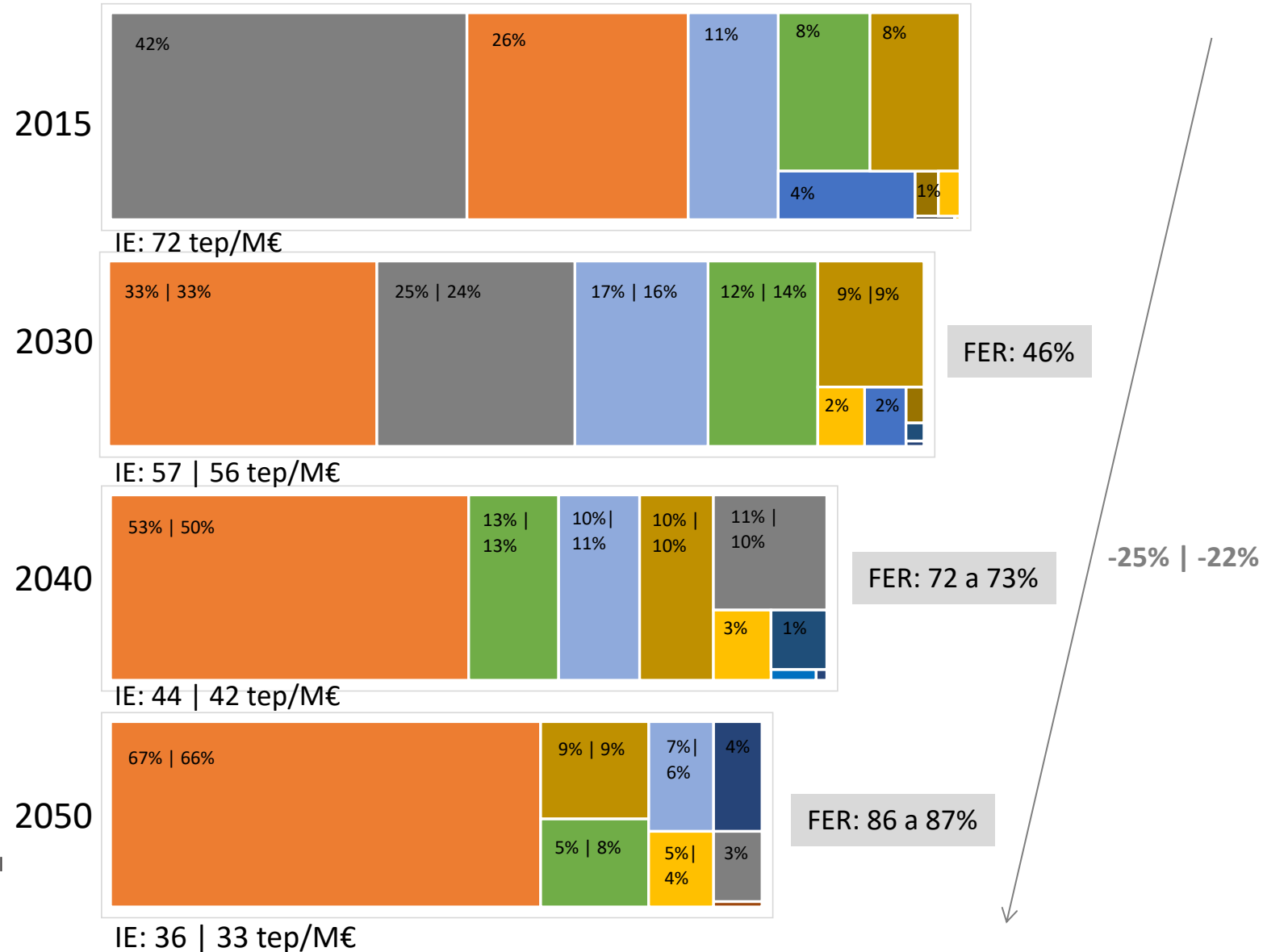
> Reduction of final energy consumption in 2050 between 21% and 24% compared to 2015

> Reduction of energy intensity by more than 50%

> Increasing electrification of the economy, already visible in 2030, with increased integration of renewables in final energy consumption by 2050

> In 2050, more than 65% of the final energy consumption will be electricity

> Steep reduction in oil product consumption



- Biomass
- Electricity
- Natural Gas
- Geothermal
- LPG
- Heat Cogeneration
- Oil Products
- Coal
- Solar Thermal
- H2
- Waste

The Electricity Sector Transition

> **Security of supply** is guaranteed by:

- **Technological complementarity and diversification** of renewable installed capacity
- **Thermal capacity:** natural gas-dedicated plants up to - and including - 2040 (Pego and Lares) | CHP to biomass and natural gas by 2050 (1.7 GW | 3% of total capacity)
- **Batteries + hydro with pumping** (about 6.6 GW in 2050 | about 12% total capacity)
- **H2 and VE production** that can store and supply electricity (**V2G**) if necessary

