

THE IBERIAN ENERGY STORAGE AMBITIONS

JOÃO MACEDO VITORINO ▪ DÉBORA DUTRA

Earlier in February, the Spanish Government approved an entirely new [Energy Storage Strategy](#) (*Estrategia de Almacenamiento Energético*), which is seen as key to the security of supply, the decrease of energy prices and the transition to an emission-neutral economy. The Strategy sets ten lines of action and 66 measures including storage in the energy system, circular economy, energy communities and ways for citizens to participate, green hydrogen promotion, creation of new business models with the intent of recycling and getting a second life out of batteries, plus policies to remove administrative barriers to facilitate new projects.

Currently, the storage available in Spain comes largely from pumped hydrogen and concentrated solar power (CSP) plants, that the Spanish Government intends to replace with large-scale batteries (at least 400 MW by 2030). The Strategy includes making the most of using the energy available from electric vehicles (26 GWh per year by 2030), additional storage capacity behind the meter as well as utility-scale storage provided by CSP plants. The Strategy predicts the storage capacity will increase from the current 8.3GW level to 20GW by 2030 and to 30GW by 2050 (including both utility-scale and distributed storage). These storage levels were set considering the decarbonization objectives established in the Spanish national energy and climate plan 2021-2030 ([Plan Nacional Integrado de Energía y Clima](#) or 'PNIEC'), which sets the share of renewable energy in energy consumption at 42% by the end of the decade. The Strategy follows the obligations taken on under the Paris Agreement as well, and pursues the design modernizing goals of electricity markets, that the European Commission has been developing under the [Clean Energy Package for all Europeans](#) (CEP).

But how ambitious is this Strategy and how advanced is Spain in implementing an energy storage policy when compared to Portugal and other EU countries?

The Portuguese National Energy and Climate Plan 2030 ([Plano Nacional de Energia e Clima](#) or 'PNEC') envisages an increase in storage capacity, first through hydro pumps and, towards 2030, with the contribution of hydrogen and batteries. Presently, the most developed and promising electric energy storage technology is the use of reversible pumping in hydroelectric plants, with efficiency ratios around 70-80%. However, in the Portuguese 2020 solar auction, 8 of the 12 lots awarded, have already included storage, representing 483 MW, almost 75% of the granted capacity (670 MW).

But, like Portugal, Spain has not yet introduced specific connection rules and tariffs to storage projects. France has recently included a proper definition of energy storage in its regulatory framework to address the issue of connection rules for storage in the near future and a specific target has been defined for the development of pumped hydrogen storage: the expansion of 1 to 2 GW in 2025-2030.

Currently, the European market for Batteries and Energy Storage Systems (BESS) is led by Germany, where energy storage facilities have been near renewable energy-based power plants, as this combination leads to an advantage concerning market premium for the installations plus improved profitability.

March 15, 2021

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