

According to data from the 'The Spanish Electricity System. Preliminary Report 2021'

Extremadura doubles its solar photovoltaic generation in 2021 and reaffirms its national leadership position

- The region of Extremadura produced the most electricity in 2021 using solar photovoltaic technology.
- Extremadura has the largest photovoltaic power generation fleet in Spain and last year added 1.3 GW of new PV power capacity.

Mérida, 18 March 2022

Extremadura has revalidated its national leadership position in solar photovoltaic energy in 2021, both in terms of installed power capacity and electricity generation. Last year, it installed more than 1,300 MW of new PV power capacity, which is almost 51% more than it added in 2020. As a result, the region ended the year with more than 3,877 MW, the largest installed photovoltaic capacity in the country. This boost allowed production from this source to double, reaching a volume of more than 4,900 GWh. This data is included in the 'Spanish Electricity System. Preliminary Report 2021', a document that Red Eléctrica de España publishes annually that includes the main power generation indicators in the Spanish energy sector and which was presented at an event held today.

For the Chairwoman of Red Eléctrica, Beatriz Corredor, "the energy transition is today more necessary than ever. It is the only way to achieve energy sovereignty in Europe and is an indisputable lever for the recovery that lies ahead. We have been working on this path for years and the figures for 2021 are an unmistakable sign that we are taking firm steps forward in this transition and doing so at a good pace. Furthermore, an essential instrument for driving this transition will be the 2021-2026 Electricity Grid Planning, which will be approved shortly and will allow us to comply with the path set by Spain's National Energy and Climate Plan (NECP)".

The progress in photovoltaic energy in Extremadura has enabled the region to close the year with an increase in renewable generation of almost 56% compared to 2020 figures. In this way, the share of green energy in the region's generation mix stood at 38%.

In total, the region produced 24,672 GWh, which represents 9.5% of the total nationwide. This is 15.5% higher than the figure recorded in 2020. Nuclear leads the generation mix, with more than 60% of production. It is followed by photovoltaic (20%), hydro (8.8%) and solar thermal (7.6%).

On the other hand, in 2021, Extremadura also held the national record for the share of generation coming from zero-carbon energy technologies, which, like last year, reached 99.7% of total production in the region.

All this data enables the region to have a predominant position in the energy transition process at national level. This is possible thanks to the spectacular transformation of its power generation fleet, which closed the year with nearly 78% of its installed power capacity being renewable. In total, more than 7,000 MW of green power, representing an increase of more than 22% compared to the previous year. Solar photovoltaic energy was the leading technology in the region followed by nuclear in second place with 2,017 MW in service.

With regard to electricity demand in Extremadura, in 2021 there was an increase of 1.4% compared to 2020. Specifically, 5,020 GWh were consumed in Extremadura during the year, representing 2% of the total for Spain.



The energy transition, unstoppable in Spain

At a national level, the figures for 2021 once again demonstrate Spain's strong commitment to renewables. In total, green energies produced 121,305 GWh, almost 10% (9.7%) more than in 2020 and reached a record share of almost 47% (46.7%) in the total generation mix nationwide.

In this regard, noteworthy is wind power generation which was the leading technology in 2021 with a share of 23.3% of the total generation mix nationwide. Thus, thanks to the wind, electricity produced using this technology generated 10.2% more than in the previous year. The increase experienced by solar photovoltaic energy has also been very significant. After increasing its installed power capacity by 28.8% through the addition of more than 3,300 MW, it increased its electricity production in 2021 by 36.7%.

After wind energy, the next technology that contributed the most to the generation mix was nuclear, which, although having generated 3.1% less than in 2020, still reached a share of 20.8%. Nuclear was followed by combined cycle (17.1%), hydro (11.4%) and solar photovoltaic (8%). Of note is that coal-fired generation continued its decline and reached a share in the mix of just 1.9%.

This greater presence of renewables in the generation mix in 2021 has contributed to reducing CO₂ eq. emissions associated with electricity production, which registered an all-time low in 2021.

The share of renewable technologies in the national power generation fleet also continues to grow. At year-end 2021, taking into account the addition of 4,000 MW of new green energy capacity, renewable technologies represented 56.6% of the total national production capacity (112,846 MW). Wind energy, which was the technology with the largest installed power capacity in Spain, is followed by combined cycle (23.3% share of the total mix nationwide), hydro (15.1%) and solar photovoltaic (13.3%).

For its part, electrical energy demand has continued to make progress in its recovery after the impact of the pandemic. At year-end 2021, annual demand stood at 256,387 GWh, a figure that is 2.5% higher than in 2020. After having factored in the influence of seasonal and working patterns, the figures regarding consumption remain basically the same.