

## According to Data Presented by Red Eléctrica Today

# 57% of the electricity generated in Andalusia in 2023 came from renewable sources

Andalusia ranks as the third autonomous community in our country in terms of renewable energy generation, totalling 18,229 GWh

The region has increased its installed renewable power by 12.1%

Seville, 21 March 2024

Electricity generation from renewables in Andalusia increased by 9.1% in 2023, now accounting for 57.1% of the regional total.

These are some of the findings derived from the [Spanish Electricity System Report 2023](#) and the [Renewable Energy Report 2023](#), documents created by Red Eléctrica that compile last year's main industry figures for our country. They were presented at an event held today.

According to Beatriz Corredor, president of Redeia (Red Eléctrica's parent company), "the figures for 2023 prove that Spain has consolidated its renewable leadership. This has been made possible by efforts in system operation and our extraordinary transmission grid, which have allowed our country to safely reach a share of 50% renewables in the mix. The grid is and will continue to be ready to meet the objectives set by the National Integrated Energy and Climate Plan (PNIEC)."

The excellent renewable energy figures in Andalusia during 2023 were primarily driven by solar photovoltaic energy, for which production (8,470 GWh) increased by 44.4% compared to the previous year, reaching a 26.5% share, the second highest in an electricity mix led by combined-cycle plants. Energy production for this technology reduced by 34.4% compared to the previous year and is now responsible for 30.3% of the total GWh produced in Andalusia.

Wind power, with a 19.7% share, is the third technology in the Andalusian mix, followed by cogeneration (10.6%), solar thermal (6.6%), other renewable sources (3.8%), and a combination of pumped storage, coal, hydropower, and non-renewable waste, which account for the remaining 2.6% of generation.

As for installed power, the regional generation pool brought in an additional 1,170 MW from solar photovoltaic technology and 30 MW from wind power, increasing its renewable energy

pool by 12.1% compared to 2022. This autonomous community installed the second largest amount of MW last year.

Andalusia has a total installed production capacity of 18,912 MW, of which 58.7% belongs to renewable technologies that use natural and inexhaustible resources such as the sun, wind, or water.

So, combined-cycle plants represent 31.5% of Andalusia's production capacity, followed by solar photovoltaic power with 28.5% of the total, wind power (19.3%), solar thermal (5.3%), cogeneration (3.5%), hydropower (3.3%), pumped storage (3.1%), coal (3%), other renewable sources (2.4%), and non-renewable waste, which account for 0.3% of the total.

Electricity demand in Andalusia in 2023 stood at 38,099 GWh, 1.7% lower than the previous year, a trend in line with the rest of Spain. Electricity consumption in Andalusia represents 15.6% of the country's total.

### **The Year 2023 in Spain: Renewables Break Records**

Across the whole of Spain in 2023, installed solar photovoltaic power increased by 28%, bringing an additional 5,594 MW to the Spanish generation pool, the highest figure since records began. As a result, this technology now has 25,549 MW in service, representing 20.3% of the total Spanish energy generation pool. This year-on-year increase means that our nation is the second among ENTSO-E countries in terms of the highest installed solar power output (both thermal and photovoltaic).

Spain ended 2023 with more than 125.6 GW in terms of total installed power, with renewables constituting 61.3% of this total. So, in 2023, the renewable production pool grew by 8.8%, thanks not only to the additional photovoltaic MW mentioned, but also to the inclusion of 661 MW of wind power and 4 MW from other renewable sources. In Spain's national ranking, wind power is still the technology that accounts for the largest proportion, 24.5% of power generated, followed by combined cycle (20.9%), photovoltaic (20.3%), and hydropower (13.6%), which increased its contribution by 41.1% compared to the previous year, given that 2022 was exceptionally dry.

According to the documents presented today, 2023 will also be remembered as the year when all historical renewable energy generation records were shattered, as over half of the electricity mix (50.3%) came from natural resources such as wind, sun, or water.

In 2023, Spain produced 15.1% more renewable energy than the preceding year, totalling 134,321 GWh. Two technologies were the main contributors to this historic milestone: wind power, leading the mix with 23.5% of the total, and photovoltaic power, which produced 33.8% more than in 2022.

As a direct consequence of the rise in renewable energy production, 2023 also witnessed the lowest CO<sub>2</sub> equivalent emissions (greenhouse gases): 32,045,711 tCO<sub>2</sub> equivalent, nearly 28% less than the previous year.

In its Spanish Electricity System Report 2023, Red Eléctrica also analyses other metrics such as developments in demand, which in 2023 were 1.9% lower than in 2022 after adjusting for employment activity and temperatures. In gross terms, electrical demand in 2023 stood at 244,665 GWh, marking a 2.3% decrease, while electricity consumption experienced a 3.3% decrease across ENTSO-E countries compared to 2022.

Additionally, the transmission grid availability index in the Spanish mainland system reached 97.62%, closely mirroring the values recorded in the electricity systems of the Balearic and Canary Islands, which stood at 97.84% and 98.93%, respectively.