

According to Data Presented by Red Eléctrica Today

Nearly 40% of the electricity produced in Cantabria during 2023 was emissions-free

Renewable production increased by 3.6% and now accounts for 23.2% of the electricity generated in the region

The quota for installed energy from renewable technologies in Cantabria amounts to 19.5% of the total

Santander, 21 March 2024

In 2023, Cantabria generated 3.6% more renewable electricity, and the region ended the year with a net production of 1,599 GWh, 38.3% of which did not emit CO₂ equivalent (greenhouse gases), and 23.2% of which was renewable.

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

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 of the National Integrated Energy and Climate Plan (PNIEC)."

Hydropower contributed to this Cantabrian record in terms of renewable production, with a total of 178 GWh registered in 2023, a 3.7% increase compared to 2022. They accounted for 11.2% of the mix, while wind power was responsible for 4.3%.

Meanwhile, pumped storage production was the leading technology in Cantabria's generation mix, with 631 GWh, representing 39.4% of the total. It is followed by cogeneration (34.8%), hydropower (11.2%), other renewable sources (4.9%), wind power (4.3%), renewable and non-renewable waste (2.5% each), and solar photovoltaic power, at 0.3%.

As of 31 December 2023, Cantabria has 803 MW of installed power, with pumped storage being the leading technology in the regional generation pool, accounting for 44.9% of the total. It is followed by cogeneration (35%), hydropower (12.3%), wind power (4.4%), other renewable sources (1.6%), and renewable and non-renewable waste, as well as solar

photovoltaic power, which each amount to 0.6%. Overall, 19.5% of the region's installed capacity is made up of renewable technologies.

Cantabria's electricity demand reached 3,467 GWh, representing 1.4% of Spain's total consumption.

The Year 2023 in Spain: Renewables Break Records

In 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 structure of the Spanish 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 of total installed power, with renewables constituting 61.3% of this total. Thus, 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 capacity, followed by combined cycle (20.9%), photovoltaic power (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 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 CO₂ equivalent emissions (greenhouse gases): 32,045,711 tCO₂ 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, electricity demand in 2023 stood at 244,665 GWh, marking a 2.3% decrease, while electricity consumption across ENTSO-E countries experienced a 3.3% decrease 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.