

According to Data Presented by Red Eléctrica Today

Electricity Demand in the Canary Islands increases by 2.5% in 2023

Renewable energy generation accounted for 19.4% of total electricity production in the Canary Islands last year

Renewable technologies already represent 27.3% of installed capacity in the archipelago

21 March 2024

During 2023, electricity demand in the Canary Islands reached 8,750,288 MWh, representing a 2.5% increase compared to 2022.

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.

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)."

Renewables contributed 19.4% to meet this demand, with wind power as the renewable technology with the highest quota in the Canary Islands' electricity mix (15.1%). Solar photovoltaic power increased its production by 9.5% compared to the previous year and reached a share of 3.9% of the Canary Islands' mix.

The leading technology in the archipelago was combined cycle, with a share of 42.2% of the total, followed by diesel engines (21.5%), wind power (15.1%), steam turbine (13.9%), solar photovoltaic power (3.9%), gas turbine (2.9%), and a combination of hydro-wind power and other renewables, which accounted for an overall quota of less than 1%.

July 2023 was the month with the highest renewable energy production in the islands and recorded its historical high of 248,311 MWh and a 32.6% quota of their generation structure, which on some days of the month even exceeded 40%.

Renewable installed power has increased in the Canary Islands with the addition of an extra 72 MW from renewable technologies such as wind power, which now accounts for 19.6% of the total, and solar photovoltaic power, whose installed capacity increased by 10.5% and now amounts to 7.1% of the Canary Islands' installed capacity. As of 31 December 2023, 27.3% of the Canary Islands' production capacity is renewable.

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 second among ENTSO-E countries in terms of the highest installed solar installed 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 new photovoltaic MW mentioned, but also thanks to the addition 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 power (20.3%), and hydropower (13.6%), which increased its production 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 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 the 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.