

According to Data Presented by Red Eléctrica Today

Ceuta is the only Spanish territory that does not produce any renewable electricity

With the upcoming electricity interconnection between the autonomous city and the Spanish mainland, Ceuta will be able to receive renewable energy at levels similar to those of the Mainland, which achieved its peak renewable production figures this year

Ceuta, 21 March 2024

In 2023, the Autonomous City of Ceuta was the only Spanish territory where not a single GWh of renewable electricity was generated or consumed, while the Spanish mainland reached a quota of over half (52.2%) of its electricity from natural and inexhaustible resources such as wind, sun, or water.

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)."

As this is an isolated system, the amount of electricity generated is equal to demand. Thus, the energy generated and consumed in Ceuta during 2023 amounted to 186,529 MWh, almost all of which came from diesel engines (99.9%) and gas turbines (0.1%). Both technologies use fossil fuels. Ceuta's electricity production accounts for 0.1% of the national total.

26 January marked the day with the highest consumption of the year, with 629 MWh. This figure is lower than the daily historical maximum, which stands at 723 MWh and was recorded on 15 December 2008.

Installed capacity in Ceuta's generation pool at the end of 2023 stands at 91 MW and did not show any changes from the previous year: it consists solely of technologies that use fossil fuels for electricity generation, including diesel engines (85% of the total) and gas turbines (15%).

When the upcoming interconnection that will link the Autonomous City with the Spanish mainland enters into service, Ceuta will be able to receive renewable electricity at similar levels to those produced by the mainland's electricity system, which, according to Red Eléctrica's data, amounted to 52.2% of the total in 2023.

The submarine electrical interconnection between Ceuta and the Mainland is one of the projects included in current Electrical Planning and at present is moving forward in its processing. It already has the favourable environmental impact statement issued by the Ministry for the Ecological Transition and the Demographic Challenge. This new interconnection, which will be developed by Red Eléctrica, underwent significant progress in 2023, such as the Port Authority of the Autonomous City's allocation of a plot of land for the construction of the new Virgen de África electrical substation, which will be the starting point of the submarine cable.

In addition to promoting the integration of renewable generation into the autonomous city and reducing this territory's dependence on fossil fuels, the submarine interconnection with the Mainland will bring the guaranteed electricity supply in line with that of Spain as a whole.

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 power output (both thermal and photovoltaic).

Spain ended 2023 with more than 125.6 GW of total installed capacity, 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 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 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.