

March madness: Renewables break the 100 mark in Portugal

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Portugal is a formidable newsmaker this month in renewables. The average renewable generation for March exceeded 103% of consumption.



Spelled out further, for the month of March, <u>renewables</u> supplied 103.6 % of the country's <u>electricity demand</u> on the mainland. This marked the first time in at least four decades that Portugal produced over 100% of its <u>electricity</u> from renewables, said Reuters.

The data are from REN, Redes Energéticas Nacionais, the nation's transmission system operator.

Numerous sites including *IFLScience* examined the results and said hydroelectric power (55%) and wind (42%) provided most of the monthly energy consumption of <u>renewables</u>.

NPR noted "the windy hills north of Lisbon, once filled with grain windmills," were being populated with wind turbines. Reuters noted that "Portugal, with its long Atlantic coast line, was one of the early pioneers in the mass use of wind power."

Portugal generated enough renewable energy to power the whole country in March—on the <u>mainland</u>. Camila Domonoske, NPR reporter, said, "Portugal also includes several islands, which have separate energy systems."

Nonetheless, said Michael Coren in *Quartz*, "plenty of caveats remain." Applause is due to Portugal for the March numbers but the question remains if the feat can be sustained in the longer run.

He said, "The proposition that a <u>full</u> year's worth of peaks and valleys can be managed with renewables alone has yet to be tested."

The grid ran on 100% renewables for relatively short periods: two 70 hour spans; imports and conventional generation were still needed to balance the grid because solar and wind can vary significantly. "It wasn't a clean run, so to speak," said *IFLScience*: "On some days, fossil fuels



were required to meet the demand for Portugal's electricity grid, but overall, clean energy won out."

Interestingly, *IFLScience* reported that extremely heavy rainfall hit Portugal in March, which indubitably filled its hydroelectric reservoirs up to optimum levels.

Reuters said, "March saw four times the monthly average rainfall, ending a long period of severe drought in the country, according to the Portuguese Sea and Atmosphere Institute. The downpour refilled most of the dammed reservoirs to levels of over 80 percent."

"The real test of Portugal's renewable electricity sector, then, said *IFLScience*, "will be when the cold revisits the Iberian Peninsula toward the end of the year. If renewables still outpace <u>fossil fuels</u>, then we know we're far more likely to be onto a winner."

Moving forward, Portugal is focused on a renewables future. With all the outside nudges toward caveats, the mainland appears to be focused on good things to come. From Reuters: "Last month's achievement is an example of what will happen more frequently in the near future. It is expected that by 2040 the production of renewable electricity will be able to guarantee, in a cost-effective way, the total annual electricity consumption of mainland Portugal,' the report said."

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