

Renewables shield Spain from energy crisis as gas sets electricity price in only 9% of hours

- A report by the British consultancy Ember estimates that renewables shielded Spain from the gas crisis, saving households an average of €10 per month while Europe faced its second gas price crisis in five years.



<https://www.pv-magazine.com/2026/06/16/renewables-shield-spain-from-energy-crisis-as-gas-sets-electricity-p...>

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The rapid expansion of photovoltaic and wind power in Spain in recent years is proving to be more than a decarbonization tool. Amid surging international gas prices driven by geopolitical tensions involving the United States, Israel and Iran, the Spanish power system has shown increased resilience to fossil-fuel volatility.

According to an analysis by British consultancy Ember, the rising share of renewable generation has significantly reduced the influence of gas on electricity price formation, enabling Spanish households to save an estimated €10 (\$11.5) per month on electricity bills.

The study concludes that Spain has largely decoupled electricity prices from gas market fluctuations, driven by a renewable expansion that began before the 2021–2024 energy crisis and was later accelerated through additional wind and solar capacity, as well as energy storage deployment.

From gas as marginal technology to renewables-led pricing

The transformation of the Spanish power system is evident in the declining role of combined-cycle gas plants in setting the marginal electricity price.

In 2021, before the latest phase of renewable build-out, gas set power prices around 52% of the time. In the first five months of 2026, this share had fallen to 9%, according to Ember data.

The trend is closely linked to the expansion of wind and solar generation, which increased by 37% between 2021 and 2025. During recent periods of geopolitical tension in the Middle East, strong renewable output across the Iberian Peninsula during spring helped displace fossil-fuel generation and reduce the impact of rising gas prices on wholesale electricity markets.

As a result, Spain and Portugal have been among the EU countries with the lowest wholesale electricity prices in early 2026. The contrast with gas-dependent markets such as Italy remains pronounced: while average Italian prices reached €143/MWh in March, Spanish wholesale prices were around €42/MWh.

Direct savings for consumers

Ember estimates that if the Spanish electricity system had maintained the same level of exposure to gas as in 2021, an average household on the regulated tariff would currently be paying around €10 more per month, equivalent to nearly a 19% increase in the electricity bill.

This effect is linked to the reduced weight of wholesale electricity costs in the final bill, driven by the higher penetration of renewable technologies with near-zero marginal costs. According to the organisation's calculations, avoided costs in wholesale electricity markets amount to around €15 per household per month, although this is partly offset by higher costs associated with grid balancing and system services.

Storage takes centre stage

The analysis also highlights the growing role of battery energy storage systems (BESS) in Spain, supported by regulatory reforms aimed at strengthening power system resilience following the Iberian blackout on 28 April 2025. Key measures include simplified integration of batteries into existing renewable installations and support schemes for new investments.

According to Ember, installed capacity of large-scale storage systems quadrupled in 2025 and is expected to quadruple again in 2026.

The report also notes that the blackout response did not slow the energy transition. On the contrary, between May 2025 and February 2026, Spain added an average of 1.3 GW of new wind and solar capacity per month, slightly above the level recorded in the 12 months prior to the incident.

At the same time, regulatory changes have enabled renewable energy facilities to participate in grid stability services such as dynamic voltage control, previously reserved for conventional power plants.

By May 2026, around 6 GW of renewable capacity was already providing ancillary services to the system, a development that could gradually reduce reliance on combined-cycle gas plants for grid stability.

Electrification: the next phase of the transition

For Ember, the gains achieved in the power sector represent the first step in a broader strategy to reduce dependence on imported energy.

While renewable generation has reduced exposure to gas in electricity, Spain still imports a significant share of its total energy consumption, particularly in transport, industry, and heating and cooling.

As a result, Ember sees electrification of end-use demand as the next key lever to extend the economic and energy-security benefits of renewables across the wider economy.

Spanish PV association UNEF similarly warns that this leadership position is not guaranteed without further action. It argues that failure to streamline permitting, reinforce grids, expand storage, and accelerate electrification could trigger a “historic slowdown” in renewable deployment, with implications for industrial competitiveness and energy dependence.