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Disculpen las molestias.

Spain records 397 hours of negatives prices in Q1

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Spain recorded 397 hours of negative prices between January and March, a figure far exceeding the 48 hours logged in the same period in 2025 and approaching that year's annual total of 555 hours. The surge in solar generation amid stagnant demand was the main driver of this trend, particularly during midday hours. A clear example occurred on February 21, when prices fell to -€58.60 (-\$67.99)/MWh between 12:00 and 12:45 CET, coinciding with solar generation of 15.6 GW and demand of 24.6 GW. Without corrective measures, Spain's progress in renewables could slow, as generators are forced to curtail output, accept negative pricing, or in some cases pay to feed electricity into the grid to avoid the technical costs of shutting down plants. The situation is rooted in the design of the electricity market. The marginal pricing system sets the price for all electricity based on the cost of the last technology required to meet demand. Renewable technologies, however, have a distinct characteristic: once the initial investment is made, their marginal cost of production is close to zero. In the case of photovoltaic power, solar radiation is free and operating costs are very low. As a result, during periods of oversupply, generators may bid at very low or even negative prices to remain online, which can erode the profitability of renewable projects. "We have a pricing system that is ill-suited to a scenario of high renewable penetration and low demand," José Donoso, director general of the Spanish PV association UNEF, told pv magazine. "In this situation, we could face the paradox that, despite having everything in its favor, Spain fails to achieve a 100% renewable system." Awaiting demand The association explains that the issue is temporary in nature. Spain currently has around 43 GW of granted demand connection capacity, compared with an average system demand of close to 35 GW. A significant share of these projects includes data centers, industrial electrification, renewable hydrogen production, and other new electricity-intensive activities. While not all of these developments will materialize, a substantial portion is expected to come online. The key constraint is timing. UNEF estimates that the new demand will take between three and five years to fully materialize. During this period, a temporary imbalance is expected to persist between rapidly expanding renewable supply and demand that has yet to reach sufficient levels to absorb it. The most vulnerable plants Not all renewable assets face the same level of exposure. Older installations operating under regulated remuneration schemes (RECORE—plants commissioned up to 2012 that sell electricity on the market while receiving additional state compensation to ensure investment viability) retain greater financial stability. Likewise, many projects commissioned in recent years benefit from bilateral power purchase agreements (PPAs) that include provisions to mitigate the impact of negative prices. The most exposed assets are those with PPAs that do not generate revenue during negative price periods, as well as newer "merchant" plants that rely entirely on wholesale market revenues. Projects recently connected to the grid and still in the early stages of amortising investments or building liquidity buffers are particularly vulnerable. For these assets, a prolonged period of subdued or negative pricing could place significant financial pressure on operators before new demand fully materializes. Measures proposed by UNEF Faced with this situation, the photovoltaic association has submitted a package of temporary measures to the Ministry for the Ecological Transition, aimed at preserving the sector's economic viability during the transition period until demand rises. UNEF's proposal is driven by two main factors: -The ecological transition aspect: decarbonizing the economy. -The economic and opportunity aspect: turning

low electricity costs into an industrial competitive advantage. 1) A floor for electricity prices The most ambitious proposal involves establishing an exceptional mechanism that sets both a ceiling and a floor for market prices. The model for this is the so-called “Iberian exception,” implemented during the energy crisis triggered by the Russian invasion of Ukraine. According to Donoso, just as the maximum market price of gas was capped at that time to protect consumers, with producers subsequently receiving compensation to cover their costs, a minimum price could now be considered to prevent economic collapse for photovoltaic producers. The main challenge is that intervening in the electricity market would require European authorization, which entails lengthy regulatory timelines. 2) Elimination of the IVPEE UNEF is also calling for the elimination of the Tax on the Value of Electricity Production (IVPEE) for renewable energy projects. This levy, equivalent to 7% of electricity generation revenue, was introduced in 2013 to help reduce the electricity system’s accumulated tariff deficit. The association believes that current circumstances are vastly different and argues that the tax penalizes decarbonization and unnecessarily drives up the cost of clean energy generation. They also point out that Portugal has already abolished this levy. 3) Compensation for technical curtailment Another long-standing demand from the sector being brought back to the table is compensation for technical curtailment. Currently, many renewable energy plants are forced to reduce generation due to operational grid constraints. However, unlike in other European markets, such injections into the grid do not receive financial compensation in Spain. UNEF proposes recognizing the firm nature of renewable generation and establishing remuneration mechanisms similar to those existing in other countries. 4) A competitive voltage control market Voltage control is another service that renewable facilities can provide starting in 2025; however, the association points out that current remuneration mechanisms are significantly unbalanced. While certain conventional technologies receive payments close to €200/MVA for these services, the rates proposed for renewables barely reach €1/MVA. UNEF proposes creating a competitive market for these ancillary services with a reference rate of around €50/MVA—approximately one-quarter of the remuneration received by combined-cycle plants. “This measure is proposed only for a few months, until there is a critical mass of certified projects to allow for the organization of a market where the price is determined by market forces,” explains Donoso. 5) Bridge loans to avert a liquidity crisis Perhaps the most urgent proposal is the creation of temporary financing lines through Spain’s Official Credit Institute (ICO). These bridge loans would allow the most exposed projects to cover liquidity needs until demand growth restores market equilibrium. The association stresses that these are not permanent subsidies, but transitional instruments designed to address an exceptional set of circumstances. According to sector estimates, the measure could be implemented without a significant impact on consumers by leveraging savings generated through other system operational mechanisms. In particular, José Donoso notes that the cost of the €2.2 billion allocated to “reinforced operation”—a measure that is becoming increasingly unnecessary—has begun to decline. 6) Human resources in the administration “We are encountering the same problem we faced at the start of the ecological transition: a lack of human resources to process projects,” states Donoso. UNEF is proposing an acceleration of administrative procedures to enable faster deployment of hybridisation projects. The association points out that several processes that should be completed within weeks—such as public consultations or the management of financial guarantees—often take months due to staffing constraints within the relevant public bodies. The Risk of an incomplete energy transition “We are currently working on detailed proposals to ensure these measures do not impact consumers. We are also preparing suggestions for a standardised guarantee model that could streamline administrative procedures. The goal is to pursue the common good so we do not miss this great opportunity,” Donoso notes. Spain has a unique opportunity to turn low-cost electricity into a competitive industrial advantage at the European level. However, to capitalise on this potential, it must ensure that the very projects driving its renewable leadership do not become victims of the system’s own success. The post appeared first on pv magazine Global . Spain recorded 397 hours of negative prices between January and March, a figure far exceeding the 48 hours logged in the same period in 2025 and approaching that year’s annual total of 555 hours. The surge in solar generation amid stagnant demand was the main driver of this trend, particularly during midday hours. A clear example occurred on February 21, when prices fell to -€58.60 (-\$67.99)/MWh between 12:00 and 12:45 CET, coinciding with solar generation of 15.6 GW and demand of 24.6 GW. Without corrective measures, Spain’s progress in renewables could slow, as generators are forced to curtail output, accept negative pricing, or in some cases pay to feed electricity into the grid to avoid the technical costs of shutting down plants. The situation is rooted in the design of the electricity market. The marginal pricing system sets the price for all electricity based on the cost of the last technology required

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Not all renewable assets face the same level of exposure. Older installations operating under regulated remuneration schemes (RECORE—plants commissioned up to 2012 that sell electricity on the market while receiving additional state compensation to ensure investment viability) retain greater financial stability. Likewise, many projects commissioned in recent years benefit from bilateral power purchase agreements (PPAs) that include provisions to mitigate the impact of negative prices. The most exposed assets are those with PPAs that do not generate revenue during negative price periods, as well as newer “merchant” plants that rely entirely on wholesale market revenues. Projects recently connected to the grid and still in the early stages of amortising investments or building liquidity buffers are particularly vulnerable. For these assets, a prolonged period of subdued or negative pricing could place significant financial pressure on operators before new demand fully materializes.

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- The ecological transition aspect: decarbonizing the economy.
- The economic and opportunity aspect: turning low electricity costs into an industrial competitive advantage.

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