

No Green Deal without a Grid Deal

Executive Summary

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The Iberian Peninsula stands at a pivotal moment in the energy transition. Once considered energy-poor, it is now becoming one of Europe's strongest net electricity exporters, powered by abundant renewables and offering some of the lowest wholesale electricity prices on the continent. But without a rapid transformation of its electricity distribution grid, Iberia risks falling short of its potential and weakening the ambitions of the Green Deal.

This paper argues that a "Grid Deal" is now essential to complete the energy transition. It calls for a faster shift from passive, overbuilt, capital-intensive grids to dynamic, flexible, and digitally operated networks in Spain and Portugal. A shift that would ultimately reduce investment bottlenecks, improve utilisation, lower consumer costs, and enable electrification across all sectors.

The stakes are high high for both countries. Spain's regulator, CNMC, recently proposed a 6.4 percent financial return for distribution investments for the 2026 to 2031 period. This is an improvement over the current 5.58 percent but still well below the 7.5 percent requested by companies. The difference is significant. Every 1 percent represent 350 million euros per year, given a regulated asset base of approximately 35 billion euros. With growing electricity demand from transport, industry, and data centers, the investment climate remains uncertain.

With growing electricity demand from transport, industry, and data centers, the investment climate remains uncertain. In Spain, the average industrial capacity utilisation remains at just 3,774 hours per year, while grid connection requests already exceed double the currently contracted 30 GW. The issue is not demand, it is the availability of firm grid capacity. In Portugal, the grid connection queue continues to grow, with over 10 GW of renewable projects awaiting connection, a clear signal that grid infrastructure is struggling to keep pace with clean energy deployment.

The current paper outlines a solution that benefits all parties:

- Introduce flex-grid tariffs that reward distribution system operators (DSOs) when they increase capacity utilisation above current thresholds.
- **Enable flexible grid connections** to integrate new demand without requiring immediate infrastructure expansion.
- **Reform DSO remuneration** so that digital management and operational efficiency are valued as highly as capital investment.
- Align regulatory frameworks with Spain's energy strategy (Orden TED/1193/2024) and Portugal's National Energy and Climate Plan, which reinforces the need for stronger investment signals to meet electrification, renewable integration, and sector coupling goals.

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Unlocking the additional 105 terawatt-hours of electricity demand projected by 2030 by the Spanish National Energy and Climate Plan (PNIEC), compared to 248 terawatt-hours in 2024, and meeting Portugal's 2030 targets of 88 TWh final electricity consumption and 48GW of new renewable capacity installed, according to the National Energy and Climate Plan (PNEC), will not happen without action. At the same time, this new demand could generate substantial tariff revenues, making it possible to finance stronger returns for DSOs without increasing consumer costs.

With the right mix of regulatory clarity, digital tools, and targeted incentives, lberia can show Europe how to deliver a future-proofed, fully transitioned electricity system that is clean, competitive, and resilient.

There is no Green Deal without a Grid Deal. Iberia has the opportunity to lead both.

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