# Iberdrola’s i-DE shifts focus from network to system operations amid energy transition



i-DE, Iberdrola’s Spanish distribution business, continues to significantly influence Spain's energy landscape, managing approximately 40% of the nation’s distribution network, which spans 270,000 km across a service area of 200,000 km². The company’s Director of Processes and Technology, Estibaliz Goñi Gaztelu, highlighted the pressing need to shift from a traditional ‘network operator’ role to that of a ‘system operator’ amid escalating demands driven by the net-zero transition and the increasing integration of distributed energy resources such as photovoltaic systems, electric vehicles, and heat pumps.

Under the draft national Integrated Energy and Climate plan, investments in Spain's transmission and distribution grids are projected to reach €53 billion between 2021 and 2030, averaging an annual expenditure of roughly €5.3 billion. Approximately 70% of these investments will target the distribution network, necessitating a doubling of current investment limits. The International Energy Agency's estimates further indicate a significant funding ratio of $0.70 in network investments for each dollar spent on renewables; a ratio expected to rise to 1:1 in the ensuing decade.

In an interview with Jonathan Spencer Jones, Goñi underscored the complex interplay between grid modernisation, automation, and digitalisation. She noted, “We have a huge challenge ahead of us in terms of investments,” emphasizing the importance of adapting the transmission grid to accommodate new clean energy sources while enhancing flexibility and cybersecurity within the distribution grid.

Goñi articulated a customer-centric approach to these developments, asserting that “customers should be at the centre in every decision we make”. This sentiment underlines their commitment to improving service quality through necessary modernisation while adhering to environmental standards.

The establishment of the Global Smart Grids Innovation Hub in 2021 represents a strategic initiative aimed at bolstering innovation within the organisation. “It’s not just innovation for the sake of innovation,” she remarked, highlighting collaborative efforts with a wide array of partners, including vendors, academia, and start-ups. The Hub operates as a platform for developing digital solutions focused on renewable energy integration and enhancing energy storage systems.

Artificial intelligence stands out among i-DE's innovation projects, with applications ranging from network operation to predictive maintenance. Goñi detailed the Innovative Data Space (IDS), a secure virtual lab designed for external companies to refine AI-driven solutions.

In her view, the advancements in digitalisation are as much about customer experience as they are about enhancing operational efficiency. She cited improvements in outage service restoration protocols, which provide estimated restoration times for customers, benefiting both individuals and communities as a whole.

As Goñi observed, Spain faces a critical moment regarding its investment cap and low return rates in comparison to other nations. “We want to put more investment into the network, but we have this cap,” she expressed, indicating hopes for changes in regulations that will support increased investment before the upcoming regulatory period starting 1 January 2026.

The challenges facing i-DE are not unique to the company; they extend across Spanish energy businesses as they collectively engage with the Comisión Nacional de los Mercados y la Competencia (CNMC) to address these regulatory hurdles. The potential stagnation in investment could hinder Spain’s energy transition, affecting both its competitiveness and energy security.

Moreover, Goñi emphasized the significance of a robust data governance framework. “We have a number of policies and procedures in place to ensure the quality and integrity of data,” she noted, while also recognising the broader shortage of digital skills and the need for comprehensive reskilling efforts throughout the sector.

Additionally, the long lead times for project initiation and construction present another significant barrier. Goñi illustrated a paradox where demand for new connections grows, yet existing network capacity falls short.

Overall, collaboration across local, national, and European levels emerged as a crucial element in addressing challenges and seizing opportunities for future growth within the energy sector.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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