

Iberdrola seeks solutions to protect its power lines from climate change

- The electricity company aims to avoid some of the faults caused in distribution networks by falling trees in forest environments.
- The company has more than 1.1 million kilometres of transmission lines in the United States, Brazil, the United Kingdom and Spain.

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Distribution lines are one of the pillars of the electricity system worldwide, and even more so with the integration of renewable production, the drive for energy efficiency and the improvement of supply quality. Iberdrola, with 1.1 million transmission lines, aims to reduce faults in distribution networks in forest environments, most of which are due to falling trees and branches caused by weather phenomena caused by climate change. Thus, with the help of its start-up programme, PERSEO, it is seeking solutions that will enable it to make predictions that plan and quantify climate-related risks.

Climate change affects all areas, including the electricity sector. And the distribution grid, due to its extension and new environmental threats due to climate change, requires investments to improve its resilience, so that it is prepared to face these threats.

In this context, Iberdrola, through its PERSEO start-up programme, is looking for formulas that make it possible to foresee, plan and quantify climate-related risks. It is necessary to determine the risks and threats of interruptions in the distribution network caused by events associated with extreme phenomena or environmental conditions and to be able to evaluate investments that reduce these risks. Among others, wind, vegetation density, soil structure and its long-term evolution due to climate change have to be taken into account.

The mission is to minimise damage to network assets caused by falling trees or branches in the vicinity of power distribution lines.

The challenge is launched within the framework of BiOK!, the meeting place offered by BEAZ (an entity of the Department of Economic Promotion of the Provincial Council of Bizkaia) for the generation of new business opportunities, in collaboration with Iberdrola's new smart grid innovation centre, the Global Smart Grids Innovation Hub.

Iberdrola has transmission and distribution power lines in the United States, Brazil, the United Kingdom, and Spain. This network consists of more than 4,400 high to medium voltage substations and more than 1.5 million medium to low voltage distribution transformers, built and operated to provide a high quality and reliable service to a total of 31 million electricity supply points.

The prize will consist of signing a collaboration and testing agreement with PERSEO or any other company in the group, which will assume the costs of these activities and provide the winner with the necessary technical support, as well as a real environment and data to test the solution, giving access to equipment, teams, infrastructures, high-tech sites and joint work areas. The selected project will be developed in collaboration with technical specialists from Iberdrola's Networks area.

The engine of start-ups in the energy sector

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This year, Iberdrola celebrates 15 years of innovation in the energy sector through its start-up programme, PERSEO. This has helped the utility to launch innovative solutions to promote renewable energies, decarbonisation and electrification of the economy, digitalisation of grids, promotion of efficient storage and care for the environment. The initiative, with nine companies currently in its portfolio, has created a global ecosystem of start-ups over the years with an investment of 175 million euros.

The programme's ecosystem includes more than 7,500 start-ups, including unicorns - companies valued at more than \$1 billion - such as electric vehicle charging solutions manufacturer Wallbox and Stem, which offers smart battery storage solutions.

Pilot projects give start-ups access to large volumes of data and real energy assets by testing their technologies in a real environment, while at the same time offering investment to start-ups with the highest growth potential. These two formulas provide insight into the market and access to key technologies first-hand.

Nota de prensa