Press Release
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Iberdrola United States develops Artificial Intelligence to maintain maximum grid quality

- *The project will make it possible to forecast grid performance before severe storms, resolve incidents in problem areas and prioritise investments to maintain maximum service quality.*

Iberdrola, through its US subsidiary Avangrid, has launched a Data Science and Analytics team to develop unique and proprietary Artificial Intelligence (AI) systems that will focus on improving the reliability of its grid and maintaining the highest quality standards for its customers. Once completed, these machine learning models will change the way the company approaches network investments, equipment upgrades, storm forecasting, among other issues.

Avangrid's new Data Science and Analytics analytics team consists of seven data scientists, engineers and analysts who come from prestigious industries such as healthcare, astrophysics and finance. The team is creating three unique AI systems: Predictive Health Analytics, GeoMesh and HealthAI.

Each technology will take existing data from Avangrid's companies' electricity grids and analyse it to forecast future grid performance, determine the condition of grid equipment and select at-risk locations for inspections and investments. Ultimately, this will lead to improved quality of service for the 2.31 million electricity customers served by Avangrid's subsidiaries, Central Maine Power, New York State Electric & Gas, Rochester Gas and Electric and United Illuminating.

This project takes a proactive approach to determining the condition of substation equipment and uses data to prioritise planned replacements and upgrades. Traditionally, equipment is replaced primarily based on its age or if it malfunctions and causes an outage. Instead, the aim is for Predictive Health Analytics to take a proactive, data-driven approach to determine the condition of equipment based on numerous factors, including age, frequency of use, manufacturer and maintenance notifications.

This means Avangrid will save money and help reduce outages for customers by replacing at-risk equipment before it causes an outage.

"We are reinventing what is possible for a utility when it comes to data science and analytics," says Pedro Azagra, CEO of Avangrid. "Traditionally, we have partnered with third parties to integrate this type of technology into our business. We now have the in-house talent to create machine learning models that will be Avangrid's and, as a member of the Iberdrola Group, we are also collaborating with our global colleagues to draw on their experience and expertise. Owning these AI systems will allow us to continuously improve them while reducing costs and increasing efficiency."

US energy leader

In less than two decades, Iberdrola has become one of the largest groups in the North American electricity sector, listed since 2015 on the New York Stock Exchange.

Headquartered in Orange, Connecticut, and with approximately $40 billion in assets, the firm is present in 24 states and manages close to 10,000 MW of installed capacity, of which more than 8,600 MW of renewables (mainly wind and solar PV), and more than 130,000 kilometres of power lines through eight distributors in New York, Connecticut, Maine and Massachusetts. The company serves a population of 10 million people in the United States.

Iberdrola has a portfolio of high-quality renewable projects in the United States of more than 25,000 MW, representing a stable platform for continued growth over the next several years as the country meets its decarbonisation goals.

Avangrid continues to make significant progress in the environmental, social and governance (ESG) areas. This month, for the sixth year in a row, Avangrid repeated in the FTSE4Good index.