LG&E and KU install Kentucky's first utility wind turbine

Wind turbine part of companies' growing research and development initiatives

(LOUISVILLE, Ky.) — It's not often that Louisville Gas and Electric Company and Kentucky Utilities Company wish for a windy forecast, but that all changed when the utilities and their parent company, PPL Corporation, installed Kentucky's first utility wind turbine in Mercer County.

The 165-foot-tall wind turbine is part of the company's growing Renewable Integration Research Facility at the E.W. Brown Generating Station. Data collected from the turbine will be important in determining the potential for wind to contribute to renewable energy production in Kentucky.

"Research and development are key to reducing carbon emissions in the years to come, and studying wind energy is a natural progression in our all-of-the-above research strategy," said LG&E and KU President John R. Crockett III. "We are evaluating a number of energy resources to help us understand integration of a variety of generation sources while maintaining affordability and reliability for our customers. While this wind turbine is not expected to produce a large amount of energy, it will provide insight and data that will help us analyze our options for the future."

PPL, in conjunction with LG&E and KU and its other subsidiaries, have more than 150 active research projects underway with more than \$20 million in federal funding. The projects, many of which are based in Kentucky and in partnership with the University of Kentucky, EPRI and other industry organizations, include advanced tracking solar, battery energy storage, microgrid, green hydrogen, point source carbon capture, direct air capture and now wind.

Studying the integration of wind energy is important because it complements solar power which is best in the summer and during the day. Wind, on the other hand, provides more power in the winter and at night.

LG&E and KU's wind turbine is the latest research project at the site which is also home to Kentucky's largest lithium-ion battery storage system, a microgrid and state-of-the-art 360-degree tracking solar panels. Data collected at the site will be shared with the research partners at the University of Kentucky, National Laboratories, EPRI and the public, similar to how the utilities already share live data from their solar and hydro dashboards.

When the wind is blowing and the turbine is producing full power, it will be able to power up to 90 average Kentucky homes. Over the course of a year, the wind turbine is expected to produce 193 megawatt-hours, which is enough energy to power 16 average Kentucky homes for a year.

Editor's note: For video of the wind turbine, please use this link.

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Louisville Gas and Electric Company and Kentucky Utilities Company, part of the PPL Corporation (NYSE: PPL) family of companies, are regulated utilities that serve more than 1.3 million customers and have consistently ranked among the best companies for customer service in the United States. LG&E serves 335,000 natural gas and 436,000 electric customers in Louisville and 16 surrounding counties. KU serves 545,000 customers in 77 Kentucky counties and 28,000 in five counties in Virginia. More information is available at www.lge-ku.com and www.pplweb.com.

For further information: call the LG&E and KU media hotline at 502-627-4999.