

GE Vernova's Advanced Research Center supplies wind turbine to NREL in research collaboration to accelerate critical wind technologies

- GE Vernova's Advanced Research Center supplies a 3.4 MW-140m wind turbine to NREL for use in energy research and experimentation
- Turbine will serve as the research turbine for ongoing and new joint research projects between GE Vernova and NREL
- This event underscores the potential for government and private sector cooperation to drive innovation and progress in critical areas of energy research

NISKAYUNA, New York (December 19, 2024) – Signaling a significant alliance in the energy transition landscape, GE Vernova's (NYSE: GEV) Advanced Research Center (ARC) has supplied a [3.4-140m, 81m hub height wind turbine](#) to the National Renewable Energy Laboratory (NREL). This transaction represents a deeper, strategic relationship aimed at enabling groundbreaking collaborative research using GE Vernova's assets - underscoring the potential for government and private sector cooperation to drive innovation and progress in critical areas of energy research.

GE Vernova's 3.4 MW-140m wind turbine will serve as the research platform with NREL, the leading US government laboratory on wind research, in a project funded through a Department of Energy (DOE) solicitation. The fields of exploration encompass several critical areas, each aimed at advancing wind technology and energy systems, including grid testing, installation and services technologies, sensors and controls, mechanical systems, advanced aerodynamic solutions, direct current (DC) coupling and battery energy storage systems (BESS), and hydrogen

electrolyzers to improve energy efficiency and storage. These areas align with GE Vernova's strategic priority to facilitate widescale deployment of large-scale wind energy systems – key to which are advancements in sensors that expand observability, advanced models that capture complex atmospheric and structural behaviors, and sophisticated algorithms and analytics that optimize turbine coordination and resilience.

“By integrating GE Vernova's 3.4 MW-140m wind turbine into ongoing and new joint research projects, NREL and GE Vernova can accelerate the development of these critical technologies,” says [Matt Guyette](#), **Strategy and Product Leader of GE Vernova's Wind business**, “with the aim of making large-scale wind energy systems more accessible and efficient.”

This transaction enables both organizations to leverage each other's expertise and resources to drive innovation and advance critical wind technologies - creating a platform for groundbreaking research that would be difficult to achieve independently. “GE Vernova's Advanced Research Center's provision of this turbine to NREL for use in energy research is crucial for advancing wind technologies and accelerating decarbonization efforts for both organizations,” says [Rogier Blom](#), **Renewables Breakthrough Technologies Leader at GE Vernova's Advanced Research Center**. “This strategic research relationship supports cutting-edge research for next-generation wind turbines, cost-effective renewable energy, and grid integration.”

This collaboration not only advances wind technology but also renewable energy solutions. NREL is particularly interested in using this turbine to research green hydrogen production. Wind energy, which can be more consistent than solar, can significantly boost the efficiency and scale of hydrogen production, contributing to lower carbon energy alternatives. This research focuses on directly coupling wind turbines into a DC power architecture, enabling smoother integration with electrolysis systems rather than connecting them to the grid. This dedicated approach is particularly crucial for heavy industries like steel manufacturing, where a steady supply of green hydrogen supports decarbonization and creating a more



sustainable global economy.

The 3.4 MW-140m turbine will be installed in 2026 at the NREL Flatirons site, home of the National Wind Technology Center, in Colorado, where it will join a fleet of equipment dedicated to advancements in energy research.

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About GE Vernova

GE Vernova Inc. (NYSE: GEV) is a purpose-built global energy company that includes Power, Wind, and Electrification segments and is supported by its accelerator businesses. Building on over 130 years of experience tackling the world's challenges, GE Vernova is uniquely positioned to help lead the energy transition by continuing to electrify the world while simultaneously working to decarbonize it. GE Vernova helps customers power economies and deliver electricity that is vital to health, safety, security, and improved quality of life. GE Vernova is headquartered in Cambridge, Massachusetts, U.S., with approximately 75,000 employees across 100+ countries around the world. Supported by the Company's purpose, The Energy to Change the World, GE Vernova technology helps deliver a more affordable, reliable, sustainable, and secure energy future. **GE Vernova's Advanced Research** business is an innovation powerhouse, operating at the intersection of science and creativity to turn cutting edge research into impactful realities. Advanced Research collaborates with GE Vernova's businesses across a broad range of technical disciplines to accelerate the energy transition.

GE Vernova's mission is embedded in its name – it retains its legacy, “GE,” as an enduring and hard-earned badge of quality and ingenuity. “Ver” / “verde” signal Earth's verdant and lush ecosystems. “Nova,” from the Latin “novus,” nods to a new, innovative era of lower carbon energy.

Learn more: [GE Vernova](#) and [LinkedIn](#).

Forward Looking Statements

This document contains forward-looking statements – that is, statements related to future events that by their nature address matters that are, to different degrees,



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