GE Vernova to collaborate with Duke Energy on nation's first 100% green hydrogen-fueled peaking power plant

- *Duke Energy's DeBary plant is expected to become among the first commercially operational power plants to produce, store, and use green hydrogen for peaking power applications*
- *GE Vernova will support the full-scale integration of the gas turbine with green hydrogen including the upgrade of the existing GE 7E gas turbine installed onsite*

Volusia, Florida - November 7, 2023 - GE Vernova's Gas Power business (NYSE: GE) today announced that it will support the development of an end-to-end green hydrogen system that Duke Energy plans to build and operate at its DeBary plant, located in Volusia County, Florida near Orlando. When operational in 2024, the new hydrogen system will provide peak power to Duke's customers at times of increased electricity demand.

The plant will be the first in the nation and among the world's first power plants to produce and use green hydrogen to power a gas turbine for peaking power applications, when the grid requires additional electrical generation to meet demand. The production, storage, and end-use will be co-located at the DeBary power plant.

GE Vernova will support the integration of the turbine with green hydrogen, including the upgrade on one of the four GE 7E gas turbines installed at the site to accommodate hydrogen fuel blends of significant volumes. This will be the first commercial operation of this ability.

The DeBary Hydrogen Project will leverage Duke Energy's installed solar array to operate electrolyzers to create green hydrogen, which will be stored on-site. Then, the green hydrogen will be used to power the gas turbine with up to 100% hydrogen fuel to support periods of peak demand for electricity.

“This first-ever, commercial operation of a gas turbine on 100% hydrogen will be a groundbreaking achievement for Duke Energy and for our industry. Our existing solar field and gas turbines at DeBary provide a unique opportunity for us to produce green hydrogen, store it onsite and then combust it to ensure reliable service when electricity demand is high,” said Regis Repko, Duke Energy’s senior vice president of generation and transmission strategy. “This combination of technologies will allow gas turbines to become decarbonized, dispatchable assets that support the addition of more renewables to our grid, and we appreciate the opportunity to collaborate on such an innovative project with GE Vernova and others.”

Demand for energy in the United States and globally is increasing rapidly, making it even more challenging to rely solely on intermittent, renewable energy to keep the power grid operational when the wind is not blowing, or the sun is not shining. However, hydrogen produced from excess renewable energy during optimal generation conditions and stored for later use by gas turbines can provide a unique mechanism to help ensure reliable, affordable, and more sustainable electricity generation.

“GE Vernova is thrilled to work closely with Duke Energy on this project, which is a perfect example of the interplay opportunities between renewable energy and efficient gas-fired combustion technologies and exhibits how gas turbines are an essential technology in the energy transition,” said Eric Gray, President and CEO of GE Vernova’s Gas Power business. “Multiple engineering and consulting teams located across GE’s sites worldwide will support the DeBary Hydrogen Project, perform any needed modifications to the gas turbine and work with Duke Energy to support the overall integration of the hydrogen fuels. We are honored to work with Duke Energy in this first-of-its-kind project.”

To support the project, GE began working with Duke Energy on a hydrogen plant readiness assessment in 2021. Following the installation of the electrolyzer equipment and hydrogen storage capacity on site, GE Vernova will execute modifications to the existing gas turbine infrastructure at the DeBary plant,

including the fuel handling systems, valves and piping compatible with higher blends of hydrogen operation and up to 100% hydrogen (by volume). GE Vernova will also install the fuel skid with hydrogen blending, finalize control modifications, and support the overall integration of the project to support 100% hydrogen operation expected in 2024.

When fully operational, the converted 83 megawatt (MW) 7E gas turbine will have the ability to operate on natural gas, liquid fuel, 100% hydrogen, or a blend of natural gas and hydrogen providing the site with complete fuel and operating flexibility while maintaining plant reliability.

Located just north of Orlando, the Duke Energy Florida DeBary plant consists of a 74.5 MW solar power plant spread across an area covering the equivalent of almost 200 football fields and a 692 MW gas power plant for reliable reserve power. The power plant is powered by six of GE's 7B gas turbines and four of GE's 7E gas turbines.

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About GE Vernova

GE Vernova is a planned, purpose-built global energy company that includes Power, Wind, and Electrification businesses and is supported by its accelerator businesses of Advanced Research, Consulting Services, and Financial Services. 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 more than 80,000 employees across 100+ countries around the world. **GE Vernova's Gas Power** business engineers advanced, efficient natural gas-powered technologies and services, along with decarbonization solutions that aim to help electrify a lower carbon future.

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. Supported by the Company Purpose, *The Energy to Change the World*, GE Vernova will help deliver a more affordable, reliable, sustainable, and secure energy future. Learn more: GE Vernova and LinkedIn.

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