GE Vernova commissions India’s first variable speed pumped storage unit at the country’s largest hydropower complex

- GE Vernova has been selected to deliver a full water to wire solution, including the hydropower generating equipment, power electronics and controls, to THDC India Limited

- Project includes four 250 megawatts hydropower variable speed pumped storage units, allowing short response times to load changes, giving the network greater flexibility.

- Once completed, the Tehri Hydropower Complex is expected to become the largest hydro power plant in India with 2.4 GW of generating capacity, and support the region with irrigation and drinking water

VADODARA, INDIA (June 6, 2025) **–** GE Vernova Inc. (NYSE: GEV) announced today that it has commissioned the first of four 250 megawatts (MW) variable speed units at THDC India Limited’s Tehri Pumped Storage Hydropower Plant, part of the Tehri Hydropower Complex. With this 1 gigawatt (GW) expansion, the complex will reach 2.4 GW of generating capacity and become India’s largest hydropower complex. The project’s reservoir will also help provide support with irrigation and drinking water during non-monsoon periods to the state of Uttarakhand, where it is located.

“With this project, Tehri will become India’s first power plant to use variable speed pumped storage technology and the country’s most modern hydropower station. With fast transition between the turbine and pump operation, the four new units are expected to enable power control, leading to significantly improved grid flexibility. These are all crucial capabilities as more renewables are integrated into the country’s energy mix,” said **Frederic Ribieras, CEO of GE Vernova’s**

hydropower business.

Hydropower remains a cornerstone of India's renewable energy landscape, with an installed capacity of approximately 51 GW as of early 2024, positioning the nation as fifth globally in hydroelectric capacity.

Pumped Storage units help stabilize the grid by acting as giant batteries: water is pumped from the lower to the upper reservoir in times of surplus energy and, in times of demand, water from the upper reservoir is released, generating electricity as the water passes through the turbine. This technology is the largest source of long duration energy storage globally, representing about 94%* of total energy storage capacity.

For this project, GE Vernova capitalizes on its broad portfolio of technologies to generate, transfer and store power to deliver a full water to wire solution, spanning from electrical, hydraulic machines to converters. The project includes the integration of the four doubly fed induction motor generators and the associated pump turbines with the power electronics and control systems.

Tehri Hydropower Complex includes:

- 1 GW Tehri Hydropower Plant commissioned in 2006.
- 400 MW Koteshwar Hydropower Plant commissioned in 2012.
- 1 GW Tehri Pumped Storage Hydropower Plant, where GE Vernova is currently delivering four 250 MW Pumped Storage Variable Speed Doubly Fed systems.**

GE Vernova has a substantial presence in India, across generation, transmission and distribution. The company has five Technology and Engineering Centers focused on advancing research, development and innovation in new technologies and solutions. Additionally, the company operates 11 manufacturing sites that are undertaking local production and generating employment. The company’s workforce in India comprises of over 10,000 employees, including more than 3,000 engineers and technologists.

*According to the International Hydropower Association.

**Under an order signed in 2011 with Tehri Hydro Development Corporation India Limited (THDC).

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 85,000 employees across approximately 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 **Hydro Power** business produces advanced technologies that harness the power of water to help deliver reliable power to some of the world's largest economies and remote communities

https://www.gevernova.com/
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