



GE and Power Grid strengthen the grid for half a billion people in India

- *GE successfully transmits 1,500 MW of power on 1st pole for India's Champa UHVDC project*
- *Two-phased 1,365 km energy highway transporting electricity from Champa in the Central-Eastern region of India to Kurukshetra in the North*
- *GE's first 800 kV UHVDC project worldwide to reach full power commercial operation*
- *First 800 kV scheme in the world to use dedicated metallic return conductors which significantly enhances reliability*
- *Benefits entire Northern Grid of India which connects 46% of Indian population*

Champa, India - March 27, 2017 - The first step of a two-phased project designed to address the growing power needs of India's northern region is now energized. GE Energy Connections (NYSE: [GE](#)) announced that it has successfully transmitted 1,500 MW of power for phase 1 of the Champa Ultra High Voltage Direct Current (UHVDC) project. Led by Power Grid Corporation of India, Ltd ([POWERGRID](#)) the project will connect reliable, safe, and efficient energy to an estimated [46%](#) of India's population¹. This would benefit the people in North India with leading states such as Punjab, Haryana, Uttar Pradesh and Rajasthan.

India remains [one of the fastest](#) growing economies. The country currently uses [6%](#) of the world's primary energy for its [1.2B](#) people. In 2015, the [World Energy Outlook](#) estimated that 240 million people in the country do not have access to electricity.

To meet part of this need, the Champa 800 kV UHVDC project will connect thermal power produced in Chhattisgarh to the north via Kurukshetra, through a 1,365 km energy highway. Executed in two phases, the project will transport 6,000 MW of power upon full completion. Both phases comprise two poles, each with the capacity to transmit 1,500 MW. This is also the first 800 kV scheme in the world to use dedicated metallic return conductors eliminating the need for ground electrodes and increasing the system's reliability.

HVDC was the preferred solution for bulk electrical transmission over long distances to consumption areas. An HVDC system is all about making existing power grids more effective in a world where cost-efficient transport of electricity and environmental impact are becoming increasingly critical. It is the answer to one of the biggest challenges: moving more power, faster. This system can transmit up to three times more power over long distances than traditional alternating current transmission. HVDC is also more efficient with lower losses than traditional AC transmission solutions. Traditional HVDC technologies use transmission voltages of up to 600 kV, while UHVDC has the capability to transmit at voltages of 800 kV and beyond.

"Connecting people all over the world to the energy they need to live and thrive is our purpose at Energy Connections. When we help turn the lights on for the India's Northern region, we are improving the lives of over half a billion people². We are proud to have partnered with [Power Grid](#) to deliver and commission this

¹ India Census data: <http://www.census2011.co.in/states.php>

² 46% of 1.2 billion people is equivalent to 552 million people



brand new 800 kV UHVDC connection for India," said Reinaldo Garcia, president and CEO, Grid Solutions from GE Energy Connections.

The global market for HVDC is currently valued at around [US\\$6B, is set to reach approximately US\\$15B](#) by the end of 2026. To date, GE has designed, delivered and supported the installation of HVDC capacity of more than 35 GW globally, in a broad range of applications and environments.

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About GE

GE (NYSE: [GE](#)) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry. www.ge.com

About GE Energy Connections

GE Energy Connections designs and deploys industry-leading technologies that turn the world on. We transport, convert, automate and optimize energy to ensure we provide safe, efficient and reliable electrical power. Uniting all the resources and scale of the world's first digital industrial company, we connect brilliant machines, grids, and systems to power utility, oil & gas, marine, mining and renewables customers, that keep our world running. Grid Solutions, a GE and Alstom joint venture, is part of GE Energy Connections. www.GEEnergyConnections.com, www.GEGridSolutions.com

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