News Release
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Hitachi and Adani switch on HVDC city center infeed for more than 20 million people in Mumbai

Delivering a 50 percent boost in electricity supplied to the city from outside, the new HVDC link strengthens grid resilience, accelerates renewable integration, and sets a global benchmark for urban transmission

- One of the world's largest urban HVDC city infeeds delivers renewable energy and drives forward the city's Climate Action Plan and decarbonization ambitions
- A space-saving converter station and 50 km of underground HVDC cables overcome Mumbai's urban constraints

Valves hall at the converter station in Mumbai

Zurich, April 15, 2026 – Hitachi Energy, a global technology leader in electrification, and Adani Energy Solutions Ltd. (AESL), India's largest private sector power transmission and distribution company, have successfully commissioned one of the world's largest high-voltage direct current (HVDC) city center infeed in Mumbai, increasing power supply coming from outside the city by 50 percent.

Injecting up to 1,000 megawatts (MW) of reliable, secure, and clean power directly into one of the world's most densely populated megacities, the new HVDC link delivers a step-change in Mumbai's energy resilience. The Kudus-Aarey connection significantly strengthens the city's transmission infrastructure, supporting the daily needs of more than 20 million people.

One of the world's largest urban HVDC infeeds, delivering 1,000 MW of renewable energy
Powered by Hitachi Energy's Voltage Source Converter (VSC) HVDC technology, the link

delivers precise, fast control of power flow, improved voltage stability, and enhanced grid reliability in a city where space is scarce. The Aarey converter station upgrade marks the city's most significant grid modernization in nearly 25 years, boosting the grid capacity from 250 to 1,000 megawatts (MW) and directly reinforcing the city's energy stability and resilience thus ensuring energy security.

"The HVDC city center infeed is a critical enabler of the Mumbai Climate Action Plan, strengthening the city's ability to integrate renewable energy and build a more resilient, future-ready grid," said Kandarp Patel, CEO, Adani Energy Solutions Ltd. "By expanding access to clean power, this project supports the city's decarbonization goals and ensures that homes, businesses, transport systems, and digital infrastructure have the reliable, low-carbon electricity they need to grow."

Urban innovation: overcoming Mumbai's constraints Delivering this milestone project in the heart of a busy megacity demanded exceptional execution capability. Building a major transmission interface within tight urban constraints required precise coordination of construction and logistics, a challenge intensified by Mumbai's monsoon seasons. The converter station was engineered with an extremely compact footprint and supplied through a configuration combining overhead lines and underground HVDC cables, which freed approximately 2 square kilometers of urban territory - equivalent to approximately 280 football fields[*1] or more than 100 cricket fields[*2].

*1 Standard football pitch size area is 7,140 m^2. Source: FIFA (Fédération Internationale de Football Association - International Federation of Association Football).

*2 Cricket fields vary in size, but a common international diameter is ~137 metres and area ≈ 14,738 m^2. Source: International Cricket Council (ICC)

"The Mumbai HVDC city center infeed demonstrates Hitachi Energy's capability in delivering mission-critical, technically complex, and space-constrained transmission infrastructure for some of the world's largest population centers," said Niklas Persson, CEO, Grid Integration Business Unit, Hitachi Energy. "With our pioneering HVDC technology at its core, this project feeds reliable, secure electricity into Mumbai – powering its fast-growing economy, digital infrastructure, rising data center demand, industries, and daily lives."

"The commissioning of the Mumbai HVDC city infeed is a moment of immense pride for Hitachi Energy," said N Venu, Managing Director and CEO, India & South Asia, Hitachi Energy and Managing Director, Hitachi India. "This project pushes the boundaries of what transmission technology can achieve in one of the world's most complex urban environments. Our teams in India have delivered a breakthrough that brings cleaner, more reliable power to millions of people, showcasing how innovation made in India, is shaping the nation's energy future."

The project is supplied through the Kudus grid connection with power imported from outside the city, including renewable energy from generation regions of Maharashtra and renewable-

rich nodes across India's national grid. With its compact footprint, ability to transmit power through underground cables in constrained corridors, and inherent advantages in managing power congestion, pollution, acoustical and electrical noise, power quality, and control, the in-city HVDC application provides a scalable model for other Indian cities and global megacities facing similar multiplying power demand as well as land permitting and grid integration challenges.

Hitachi Energy's HVDC legacy in India

Hitachi Energy has an impressive HVDC track record in India, where it introduced the HVDC technology with the Rihand-Dadri HVDC transmission system in 1990. The company is currently executing several of India's most transformative renewable energy transmission corridors, such as the 950-km, 6,000 MW HVDC connection from the renewable energy zone in Bhadla/Rajasthan to Fatehpur/UP, the 1,200-km, 6,000 MW link from Khavda to Nagpur. To support the execution of these and other projects worldwide, in 2023, Hitachi Energy inaugurated an advanced power electronics factory in Chennai to enhance the local production capacity of pioneering HVDC and power quality solutions. Together, these developments reaffirm Hitachi Energy's role as a long-term technology partner in building India's grid of the future.

About Hitachi Energy
Hitachi Energy is a global technology leader in electrification, powering a sustainable energy future with innovative power grid technologies with digital at the core. Over three billion people depend on our technologies to power their daily lives. With over a century in pioneering mission-critical technologies like high-voltage, transformers, automation, and power electronics, we are addressing the most urgent energy challenge of our time – balancing soaring electricity demand, while decarbonizing the power system. With an unparalleled installed base in over 140 countries, we co-create and build long-term partnerships across the utility, industry, transportation, data centers, and infrastructure sectors. Headquartered in Switzerland, we employ over 50,000 people in 60 countries and generate revenues of around $16 billion USD.
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Through its Social Innovation Business (SIB) that brings together IT, OT (Operational Technology) and products, Hitachi contributes to a harmonized society where the environment, wellbeing, and economic growth are in balance. Hitachi operates globally in four sectors – Digital Systems & Services, Energy, Mobility, and Connective Industries – and the Strategic SIB Business Unit for new growth businesses. With Lumada at its core, Hitachi generates value from integrating data, technology and domain knowledge to solve customer and social challenges. Revenues for FY2024 (ended March 31, 2025) totaled 9,783.3 billion yen, with 618 consolidated subsidiaries and approximately 280,000 employees worldwide. Visit us at www.hitachi.com.

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