

Decentralised RE to upgrade India's grid network: GE

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While India boasts of having one of the world's most extensive power grid networks, its modernisation, especially at the last-mile level controlled by power distribution companies (discoms), has progressed tardily.

With the need to upgrade their archaic power systems, along with increasing the share of renewable energy (RE) in their network, these discoms are now embracing high-technology solutions.

GE Grid Solutions (GE) is looking to tap into this opportunity by offering solutions to absorb more decentralised RE, the company's senior executives told Business Standard.

GE has deployed its digital substations in Chandigarh. Its advanced grid management products are focused on grid automation, stability, and remote control in Rajasthan, Uttar Pradesh (UP), Jammu & Kashmir (J&K), and Himachal Pradesh (HP), they said.



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- GE Grid Solutions will introduce products to make the grid more stable, smart, and sustainable
- Smart substations utilising digital features to reduce cost, carbon footprint
- Grid OS software introduced to maintain grid stability as more RE is connected
- Remote device management at substations allows key functions to be monitored and operated remotely
- IT/OT integration to protect and automate network

The company is also partnering large industrial houses, such as Reliance Industries (RIL), that are shifting focus towards incorporating more RE at both the captive and business levels.

While RE has received attention in the past decade, the development of a dedicated grid

for incorporating RE has been lagging behind generation projects.

In India, the grid has been built for over 100 years, but a nationwide synchronisation happened hardly a decade ago.

The Centre last year announced a ₹2-trillion plan to develop a dedicated transmission net-

work for evacuating RE.

"India has the same challenges and is seeing the same trend as Europe and North America where the grid has been extensively modernised. It's just that there is a simultaneous need for access to electricity in India. There is, therefore, a push for decentralised RE," said Vera Silva, chief strategy/technology officer and vice-president, GE Grid Solutions.

The company is aiming for grid orchestration. Given the geographic diversity of the country and changing levels of power consumption, this is a complex process.

"For speedy deployment of these new technologies, we are interested in collaborating with the customer first so that we co-develop the right thing," said Silva.

In India, the company is tying up with RIL for its RE ambitions, said Sandeep Zanzaria, strategy, technology and global account for Asia Pacific.

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