India gets closer to meeting 2030 renewable energy targets with new transmission plan

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In its endeavor to achieve the $ 5 trillion economy goal by 2024 – 25 and become the third-largest economy by 2030, India has been putting a renewed focus on reducing the country's overall carbon footprint and meeting its Sustainable Development Goals (SDGs) commitments made during the Paris agreement. To bring in a green revolution in the country, the government has set an ambitious target of having 500 GW of installed renewable energy by 2030, which includes the installation of 280 GW of solar power and 140 GW of wind power.

Further highlighting the need to be energy sufficient through clean sources of power, several states across the country has been witnessing acute power shortage, primarily due to the disruptions in the supply of coal, spike in the price of imported coal for coastal plants and high prices on the power exchange. To address the deepening power crisis and the rising concerns related to climate change issues, an escalation in the manufacturing and installation of renewable energy sources has become imperative.

Catapulting the transition towards clean energy, the government has been adopting several measures and introducing favourable policies to promote the domestic manufacturing of renewable energy. In line with this, the government has recently introduced Rs 2.44 lakh crore transmission plan – a move which can be considered

one of the biggest steps towards India's target to produce 500 GW of non-fossil fuel-based energy by 2030.

The newly-introduced plan by the government comes following recommendations made by an expert committee earlier set up by the ministry – comprising representatives from Solar Energy Corporation of India, Central Transmission Utility of India Ltd, Power Grid Corporation of India Ltd, National Institute of Solar Energy, and National Institute of Wind Energy. The primary objective of the plan is to ease up the energy transition in the country. The plan entails 50,890 circuit km transmission lines and 4,33,575 MvA substation capacity, which will be a major boost for the players in the industry to enhance domestic production. The government has further drafted strategies to ensure round-the-clock power to end consumers by envisaging the installation of 515 GW battery storage by 2030.

The new transmission system plans by the government can be considered a major catalyst that will ensure cleaner energy comprising 50 per cent of the country's overall power mix by 2030. This will also ascertain that the country meets its energy security need while simultaneously recognizing the demands of climate change goals; thereby maintaining sustainable economic growth.

As part of the roadmap towards achieving its ambitious energy targets, the government has also identified upcoming non-fossil fuel-based generation centers from across the country, which includes Fatehgarh, Bhadla, Bikaner in Rajasthan, Khavda in Gujarat, Anantapur, Kurnool RE Zones in Andhra Pradesh, offshore wind potentials in Tamil Nadu and Gujarat, RE park in Ladakh among others.

The transmission plan proposed by the ministry will provide an outlook to the renewable energy developers about the potential generation sites and scale of investment opportunities. It will also bring in transparency among the transmission service providers regarding growth opportunities available in the sector along with a staggering investment opportunity of around Rs 2.44 trillion.