

Green Energy Corridor (GEC)

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In news—The Cabinet Committee on Economic Affairs (CCEA) has approved the second phase of the Green Energy Corridor scheme for Intra-State Transmission System (InSTS) recently.

Phase II of Green Energy Corridor(GEC)-

- Under this phase, about 10,750 circuit kilometers (ckm) of transmission lines and around 27,500 megavolt-amperes (MVA) of substation capacity will be installed to facilitate **electricity evacuation of around 20 giga watt (GW)** of renewable energy projects.
- It **covers Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh.**
- The estimated cost of the scheme is Rs 12,031 crore, and 33 percent of the project cost will be met as central financial assistance.
- It will be **implemented during 2021-22 to 2025-26 fiscal years.**
- Though the size of the second phase of the scheme is higher than the first phase, it will receive lesser financial assistance from the Centre.

Green Energy Corridor(GEC) phase I-

- The Project aims at **synchronizing electricity produced from renewable sources, such as solar and wind, with conventional power stations in the grid.**
- Under the first phase, 9,700 ckm of transmission lines and 22,600 MVA of substations are being constructed at an estimated cost of Rs 10,141.7 crore.
- It is being implemented in Andhra, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu.
- The project is being implemented in these states by the respective State Transmission Utilities (STUs).

- It will help supply around 24GW of renewable energy by 2022.
- The corridor forms an important component of the plan to maintain the grid frequency within the 49.90-50.05 Hz (hertz) band.
- An automatic generation control recently made operational sends signals to power plants every four seconds to maintain frequency, ensuring the power grid's reliability.
- Most projects for the first phase of the green energy corridor scheme have been awarded through tariff-based competitive bidding.