

**GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.656
ANSWERED ON 28.11.2024**

POWER TRANSMISSION CAPACITY

**656. SHRI K RADHAKRISHNAN:
DR. AMAR SINGH:**

**Will the Minister of POWER
be pleased to state:**

(a) the details of power transmission capacity in the country during the last ten years, year-wise;

(b) whether the Government have identified any key interim milestones to achieve the targeted 35% increase in power transmission capacity by the Financial Year 2032 and if so, the details thereof;

(c) the details of the strategies being implemented to integrate renewable energy sources within the expanded transmission network, with a view to ensure grid stability and operational efficiency; and

(d) the steps taken/being taken by the Government to overcome the challenges such as land acquisition, environmental clearances, and other potential bottlenecks affecting the timely completion of these transmission projects?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : As on 31st March 2014, Transmission System (of 220 kV & above voltage level) consists of 2,91,336 circuit kilometers (ckm) of Transmission Lines and 5,30,546 Mega Volt Ampere (MVA) of Transformation Capacity and Inter-Regional capacity of 35,950 Mega Watts (MW) in the country.

.....2.

The year wise addition in transmission lines (of 220 kV & above) and transformation capacity (of 220 kV & above) and inter-regional capacity in the last 10 year is as below:

FY	Transmission Lines (in ckm)	Transformation Capacity (in MVA)	Inter-Regional capacity (in MW)
2014-15	22101	65554	7900
2015-16	28114	62849	15200
2016-17	26300	81816	16000
2017-18	23119	86193	11400
2018-19	22437	72705	12600
2019-20	11664	68230	3000
2020-21	16750	57575	3000
2021-22	14895	78982	7200
2022-23	14625	75902	0
2023-24	14203	70728	6,490
2024-25 (Up to 31st October-2024)	4762	33265	0

As on 31st October 2024, Transmission System (of 220 kV & above voltage level) consists of 4,90,306 ckm of Transmission Lines and 12,84,345 MVA of Transformation Capacity, and Inter-Regional capacity of 1,18,740 MW.

(b) : The National Electricity Plan (Transmission) has been launched in October, 2024. As per the Plan, 1,91,474 ckm of transmission lines and 1,274 Giga Volt Ampere (GVA) of transformation capacity would be added (at 220 kV and above voltage level) during the ten- year period from 2022-23 to 2031-32. The inter-regional transmission capacity is planned to increase to 168 GW by the year 2031-32.

The key interim milestone of Transmission lines, Transformation Capacity (220 kV & above voltage level) and Inter-Regional capacity would be 5,71,403 ckm, 1,847GVA and 143 GW respectively by 2026-27.

(c) : The strategies being implemented to integrate Renewable Energy (RE) sources within the expanded transmission network, with a view to ensure grid stability and operational efficiency inter alia includes following:

- i. Innovative products like Solar-Wind Hybrid Projects, RE projects with energy storage systems and supply of RE power balanced with power from non-RE sources launched to reduce intermittency.

- ii. **Flexibility in generation and Scheduling of Thermal/Hydro Power Stations through bundling with Renewable Energy and Storage Power.**
- iii. **Implementation of Green Term Ahead Market (GTAM) and Green Day Ahead Market (GDAM) for sale of renewable energy.**
- iv. **Inter State Transmission System (ISTS) charges have been waived for inter-state sale of solar and wind power projects till June 2025, and for offshore wind projects till December 2032**
- v. **Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure safe, secure and reliable operation of the grid.**
- vi. **Laying of new transmission lines and creating new sub-station capacity has also been funded under the Green Energy Corridor Scheme for evacuation of renewable power.**
- vii. **Regional Energy Management Centers (REMC) have been set up for better forecasting of renewable power and to assist grid operators to manage variability and intermittency of renewable power.**
- viii. **Resource Adequacy Guidelines has been issued by the Ministry of Power to ensure long-term capacity planning and grid reliability.**

(d) : The issues pertaining to Right of Way (RoW) and forest/wild life clearances are taken up with concerned Authorities for early resolution. All transmission projects under implementation are reviewed monthly by Central Electricity Authority and accordingly the State authorities concerned are requested for support. Further, the issues are also addressed in multi-tier monitoring mechanism like Project Monitoring Group (PMG) Portal/ e-Samiksha Portal/ PRAGATI (Pro-Active Governance And Timely Implementation) Portal.

Ministry of Power (MoP) has issued revised guidelines for payment of compensation in regard to Right of way (RoW) for transmission lines on 14.06.2024. As per these guidelines, land rate has been linked to market rate. Further, compensation amount for the tower base area and RoW corridor has been increased to 200% and 30% respectively, of the land value.
