

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2871
ANSWERED ON 17.03.2026

GRID CAPACITY FOR RENEWABLE ENERGY

2871. SHRI ASHOK SINGH

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether current grid infrastructure is capable of integrating projected renewable capacity additions over the next five years without curtailment losses;
- (b) the quantum of operational battery storage and pumped hydro capacity presently available;
- (c) whether transmission bottlenecks have led to renewable energy curtailment in specific regions; and
- (d) whether a coordinated national storage mandate with defined procurement targets is under consideration to ensure stability of high-renewable grids?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER
(SHRI SHRIPAD YESSO NAIK)

(a) Central Electricity Authority (CEA) had published a plan for Transmission System for Integration of over 500 GW RE Capacity by 2030 covering all RE rich States. Accordingly, the transmission system for evacuation of renewable energy is being planned in advance based on the projected capacity addition in line with the national target of 500 GW non-fossil fuel capacity by 2030.

As on 31.01.2026, the transmission system for 271.78 GW of Renewable Energy (RE) already commissioned, about 207 GW under construction/bidding at Inter-State Transmission System (ISTS) level and additional intra-state transmission systems is planned by states under the Green Energy Corridor (GEC) programme.

(b) to (d) As of 28.02.2026, a total of 13 Battery Energy Storage System (BESS) projects with an aggregate capacity of 279.85 MW/798.20 MWh have been commissioned across the country. The present installed capacity of pumped storage projects in the country is 7175.6 MW.

In order to utilise maximum quantity of RE (solar and wind) generated with minimum curtailment, transmission line projects of high capacity are being implemented in RE rich regions, particularly in Rajasthan and Gujarat (Khavda area).

Further additional measures have taken to strengthen energy storage systems and to ensure stability of high -renewable grids:

- (i) In June 2023, the Government issued Guidelines for Preparation of Resource Adequacy Plans by State utilities, under which energy storage has been incorporated as a key planning resource for meeting peak demand and ensuring system reliability.
- (ii) A National Framework for Promotion of Energy Storage Systems was issued in September 2023, providing a comprehensive roadmap for deployment, market integration and regulatory facilitation of storage technologies.

- (iii) Tariff-Based Competitive Bidding (TBCB) Guidelines for procurement of BESS by distribution licensees were notified in March 2022, creating a transparent mechanism for large-scale storage procurement.
- (iv) The Government is implementing two Viability Gap Funding (VGF) schemes to support development of approximately 43.8 GWh of Battery Energy Storage Systems, launched in March 2024 and June 2025, to accelerate early-stage deployment.
- (v) In February 2025, CEA issued an advisory on co-location of ESS with solar power projects, recommending storage capacity of at least 10% of installed solar capacity for a minimum duration of two hours, to improve dispatchability of solar power.
