GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 469
ANSWERED ON 03.02.2026

LOWER ENERGY STORAGE CAPACITY

469. SMT. PHULO DEVI NETAM

Will the Minister of New and Renewable Energy be pleased to state:

(a) whether Government has taken note of the December, 2025 report of Parliamentary Committee on energy which pointed out that while India has 243 GW of installed renewable energy capacity, the country currently has only about 5.5 GW of energy storage capacity, against a projected requirement of 61 GW by 2030;

(b) if so, what specific steps are being taken to bridge this gap, including support for domestic research and manufacturing of storage technologies; and

(c) the reasons for Power Purchase Agreements remaining unsigned for nearly 44 GW of solar capacity as of June 2025, despite bids having been invited?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) & (b) The Central Electricity Authority in its report on "Optimal Generation Mix 2030" has estimated that the required energy storage capacity by 2029-30 is 60.63 GW with 18.98 GW from Pumped Storage Projects (PSP) and 41.65 GW from Battery Energy Storage Systems (BESS). The Government has taken following major steps for development of the energy storage capacity in the country including support for domestic research and manufacturing of storage technologies:

- Notified Guidelines for Procurement and Utilization of BESS as part of Generation, Transmission and Distribution assets, along with Ancillary Services.
- Issued National Framework to promote Energy Storage Systems in the country.
- Issued Guidelines to promote PSP.
- Granted 100% waiver of Inter-State Transmission System (ISTS) charges for PSP for which construction work is awarded on or before June 30, 2028
- Granted 100% ISTS charges waiver for co-located BESS projects, commissioned on or before 30th June 2028, with certain conditions.
- Approved a Viability Gap Funding (VGF) Scheme for the development of large-scale BESS, with an outlay of ₹3,760 crore. Under the scheme, a BESS deployment capacity of 13,220 MWh has been envisaged.
- Approved another VGF scheme of 30 GWh, funded through ₹5,400 crore from the power system development fund (PSDF). The scheme aims to support 25 GWh of BESS projects across 15 States, and 5 GWh at an existing NTPC generating station for optimal utilization these plants.
- Earmarked 10 GWh capacity for Grid Scale Stationary Storage applications under the "National Programme on Advanced Chemistry Cell (ACC) Battery Storage".
- Issued an 'Advisory on co-locating Energy Storage Systems with Solar Power Projects to enhance grid stability and cost efficiency'.

- Implementing a “Renewable Energy Research and Technology Development Programme” to support various research institutions and industries to develop indigenous technologies and manufacturing for widespread applications of new and renewable energy including storage technologies in cost-effective manner.
- Department of Science & Technology (DST), under the Clean Energy Material Initiative (CEMI), is also funding R&D projects in the area of energy storage materials and devices.

(c) As on 31.12.2025, four Renewable Energy Implementing Agencies (REIAs), namely SECI, NTPC, NHPC and SJVN have issued Letters of Award of around 69 GW capacity and Power Purchase Agreements have been signed for around 24.3 GW against these Letters of Award.

States are also issuing renewable power procurement tenders and renewable power capacity is also being added in commercial and industrial sectors through Green Energy Open Access/Captive route. Thus, capacity addition of renewable energy is progressing through multiple pathways and not only through REIA led bids.

With the declining cost of solar/wind plus storage and dispatchable renewable power, there is a growing preference among distribution companies and end procurers for such solutions. This shift has been accompanied by a reduced demand for plain solar/wind power. Accordingly, the Government has sensitized the REIAs to move from plain RE tenders to tenders of solar/wind with Energy Storage, tenders with configuration to supply renewable power during peak hours and tenders with configuration to supply Firm and Dispatchable Renewable Energy (FDRE).

To facilitate signing of Power Purchase Agreements (PPAs) in respect of bids issued by REIAs, the Government has undertaken several proactive measures, including urging States to comply with the Renewable Consumption Obligation under the Energy Conservation Act, and advising REIAs to aggregate demand from DISCOMs and other consumers before designing and issuing tenders. Regional workshops have been organized with major renewable energy-procuring States to address implementation challenges and accelerate PPA signing.

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