GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY RAJYA SABHA STARRED QUESTION NO. 281 ANSWERED ON 19/08/2025

24X7 RENEWABLE ENERGY SUPPLY IN THE COUNTRY

*281. SMT. DARSHANA SINGH

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

- (a) the technical and policy initiatives taken so far to ensure 24x7 renewable energy supply in the country including Uttar Pradesh;
- (b) whether hybrid renewable energy (solar+wind+battery storage) projects are being developed in the State to ensure an uninterrupted power supply; and
- (c) whether there is any plan to establish Battery Energy Storage System (BESS) projects in Uttar Pradesh, so that solar energy can be used even during night?

ANSWER THE MINISTER OF NEW & RENEWABLE ENERGY AND CONSUMER AFFAIRS, & FOOD AND PUBLIC DISTRIBUTION

(SHRI PRALHAD JOSHI)

(a) to (c) A statement is laid on the table of the House.

Statement referred to in reply to parts (a) to (c) of the Rajya Sabha Starred Question No. 281 to be answered on 19.08.2025 regarding 24x7 Renewable energy supply in the country asked by Smt. Darshana Singh

(a) The Government has taken various technical and policy initiatives facilitating promotion of renewable energy supply including supply of 24x7 renewable energy on demand in the country also covering the state of Uttar Pradesh. The details of these initiatives for renewable energy in general and specific to 24x7 renewable energy supply are given at **Annexure**.

In addition, under the Uttar Pradesh Solar Energy Policy - 2022, the state provides capital subsidy of Rs. 2.5 crore per MW to utility scale solar power projects setup with 4 hours battery storage system of 5 MW capacity or above and Standalone battery storage system (energized by solar energy only) for sale of power to distribution licensee/UPPCL.

(b) & (c) Presently there are no utility scale hybrid renewable energy projects in the state of Uttar Pradesh. However, the Ministry of Power is implementing a Viability Gap Funding (VGF) scheme for development of 4,000 MWh capacity of Battery Energy Storage Systems (BESS) in the country, with a budgetary support of ₹3,760 crore. Due to decline in BESS prices, the VGF support has been extended for BESS capacity up to 13,200 MWh, within the same budgetary support. Under this scheme, BESS capacity of 2,500 MWh with VGF support of Rs. 27 Lakhs / MWh has been allocated for the state of Uttar Pradesh.

In addition, under the scheme supported through Power System Development Fund, for development of BESS of 30 GWh capacity, the Ministry of Power has allocated a BESS capacity of 1,500 MWh with VGF support of Rs. 18 Lakhs/ MWh for the state of Uttar Pradesh.

Annexure referred to in reply of part (a) of the Rajya Sabha Starred Question No. 281 to be answered on 19.08.2025

- 1. Major initiatives, specific to facilitate promotion of 24x7 renewable energy supply in the country are as follows:
 - Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Wind-Solar Hybrid and Firm & Dispatchable RE (FDRE) projects have been issued.
 - National Framework for promoting & developing Energy Storage Systems.
 - Waiver on Inter-State Transmission System charges for renewable energy projects with energy storage systems commissioned till June 2028.
 - VGF for development of approximately 43.2 GWh of Battery Energy Storage Systems.
 - Advisory on co-locating Energy Storage Systems with Solar Power Projects to enhance grid stability and cost efficiency'.
- 2. Major initiatives, in general, taken to facilitate promotion of renewable energy supply in the country are as follows:
 - MNRE has issued Bidding Trajectory for issuance of RE power procurement bids of 50 GW/annum by Renewable Energy Implementing Agencies (REIAs) [REIAs: Solar Energy Corporation of India Limited (SECI, NTPC Limited, NHPC Limited, SJVN Limited) from FY 2023-24 to FY 2027-28.
 - Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
 - Waiver of Inter State Transmission System (ISTS) charges for RE projects.
 - Renewable Consumption Obligation (RCO) trajectory has been notified till 2029-30.
 - Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from RE projects.
 - Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM KUSUM), PM Surya Ghar Muft Bijli Yojana, National Programme on High Efficiency Solar PV Modules, New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aabha Janjatiya Gram Utkarsh Abhiyan (DA JGUA), National Green Hydrogen Mission, Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects have been launched.
 - Scheme for setting up of Solar Parks and Ultra Mega Solar Power projects is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.
 - Laying of new transmission lines and creating new sub-station capacity has been funded under the Green Energy Corridor Scheme for evacuation of renewable power.

- Electricity (Rights of Consumers) Rules, 2020 has been issued for net-metering up to five hundred Kilowatt or up to the electrical sanctioned load, whichever is lower.
- National Repowering and Life Extension Policy for Wind Power Projects, 2023 has been issued.
- "Strategy for Establishments of Offshore Wind Energy Projects" has been issued indicating a bidding trajectory of 37 GW by 2030 and various business models for project development.
- The Offshore Wind Energy Lease Rules, 2023 have been notified vide Ministry of External Affairs notification dated 19th December 2023, to regulate the grant of lease of offshore areas for development of offshore wind energy projects.
- Standard & Labelling (S&L) programs for Solar Photovoltaic modules and Gridconnected Solar Inverters have been launched.
- To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2030.
- The Electricity (Late Payment Surcharge and related matters) Rules (LPS rules) have been notified.
- Electricity (Promoting Renewable Energy Through Green Energy Open Access)
 Rules, 2022, has been notified on 06th June 2022 with objective of ensuring
 access to affordable, reliable, and sustainable green energy for all. Green Energy
 Open Access is allowed to any consumer with contract demand of 100 kW or
 above through single or multiple single connection aggregating Hundred kW or
 more located in same electricity division of a distribution licensee.
- Green Term Ahead Market (GTAM) has been launched to facilitate sale of Renewable Energy Power through exchanges.
- Government has issued orders that power shall be dispatched against Letter of Credit (LC) or advance payment to ensure timely payment by distribution licensees to RE generators.