

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 1852**  
ANSWERED ON 14/12/2023

**ENERGY STORAGE SYSTEM**

1852. SHRI C.R. PATIL  
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SHRI SANGAM LAL GUPTA

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

- (a) whether it is true that Energy Storage Systems are a primary solution to reduce variability of generation of Renewable Energy Solutions;
- (b) the details of the current energy storage technologies available in the country;
- (c) whether the States of Gujarat, Uttar Pradesh, Odisha, Rajasthan and particularly the Navsari, Jhansi, Deoria, Pratapgarh, Balasore and Pali parliamentary constituency has an energy storage system for storage of renewable energy;
- (d) whether the Government proposes to launch a Production Linked Incentive scheme for rapid development of more energy storage systems;
- (e) if so, the details thereof;
- (f) whether the Government has plans to publicise and promote the use of Energy Storage Systems so as to reach the Energy Storage Obligations in time and if so, the details thereof; and
- (g) the challenges encountered in the implementation of these initiatives and the strategies in place to address these challenges?

**ANSWER**

**THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER**

**(SHRI R.K. SINGH)**

- (a) & (b) Renewable Energy is variable and intermittent in nature. Solar Energy is available only during the day. Wind Energy is only available intermittently. In order to ensure round the clock electricity storage is necessary. Pump Storage Projects (PSP) and Battery Energy Storage Systems (BESS) are the major types of storage technologies available in the country.
- (c) As per Central Electricity Authority, pump storage sites are mainly available in States of Telangana, Gujarat, West Bengal, Maharashtra and Tamil Nadu. Presently there is no pump storage system in the Navsari, Jhansi, Deoria, Pratapgarh, Balasore and Pali parliamentary constituency.
- (d) & (e) Ministry of Heavy Industry (MHI) is implementing a Production Linked Incentive scheme, 'National programme on Advanced Chemistry Cell (ACC) battery storage' for giga-scale ACC manufacturing facilities in India, with an outlay of Rs 18,100 crore. The scheme

envisages setting up of a cumulative ACC manufacturing capacity of 50 GWh for ACCs and an additional cumulative capacity of 5 GWh for Niche ACC Technologies.

(f) & (g) The Government of India has issued 'National Framework for Promoting Energy Storage Systems' in August 2023 to promote the development and deployment of Energy Storage Systems in the country.

Further, the Government of India has taken the following initiatives to fulfil the Energy Storage Obligations in time and to address the challenges:

- As per Rule 18 of Electricity (Amendment) Rules 2022, Energy Storage System (ESS) are declared as a part of the power system as defined under clause (50) of Section 2 of the Electricity Act, 2003.
- Ministry of Power in March, 2022 notified the Guidelines for Procurement and Utilization of Battery Energy Storage Systems as part of Generation, Transmission and Distribution assets, along with Ancillary Services.
- Battery Energy Storage Systems (BESS) have been included in the list of eligible generators that are allowed to participate in the High Price Day Ahead Market (HP-DAM) segment of the Energy Exchange.
- CERC (Ancillary Services) Regulations provide for eligibility of ESS to provide Secondary Reserve Ancillary Service (SRAS) and Tertiary Reserve Ancillary Service (TRAS), under certain conditions.
- A Viability Gap Funding (VGF) scheme for development of 4,000 MWh of BESS projects by 2030-31, with a financial support of up to 40% of the capital cost as budgetary support is being implemented by Ministry of Power.

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