

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 532
ANSWERED ON 03.12.2025

DOMESTIC MANUFACTURING OF SOLAR MODULES AND WIND TURBINES

532. SHRI YADUVEER WADIYAR

Will the MINISTER OF NEW & RENEWABLE ENERGY be pleased to state:

- (a) whether the Government has undertaken an assessment of storage of readiness, grid balancing infrastructure and power evacuation capacity across key renewable zones and if so, the details thereof;
- (b) the measures being taken to incentivize domestic manufacturing and R&D in solar modules, wind turbines and battery technologies under Aatmanirbhar Bharat; and;
- (c) whether the Government has identified specific States or clusters for accelerated renewable energy industrialisation linking energy availability with job creation and green manufacturing hubs and if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) Yes, the Government has undertaken multiple assessments and planning initiatives related to storage readiness, grid-balancing infrastructure and power-evacuation capacity in key renewable energy zones. These include transmission planning up to 2030, development of new transmission lines and substations under the Green Energy Corridor for renewable-power evacuation, establishment of Renewable Energy Management Centres (REMCs) for improved forecasting and real-time monitoring. Further, grid-stability measures including installation of STATCOMs and mandatory compliance with CEA's technical standards for grid connectivity also support integration and balancing of renewable power.

Energy storage systems (ESS) are required to manage the intermittency and its requirements as per the National Electricity Plan of Central Electricity Authority are give below:

Year	BESS	
	BESS	PSP
By 2029-30	41.65 GW	208.25 GWh
By 2031-32	18.98 GW	128.15 GWh
Total ESS	60.63 GW	336.4 GWh

(b) The Ministry of New and Renewable Energy (MNRE), Government of India, has been consistently bringing out policies to promote domestic manufacturing of solar energy equipment such as solar panels. Various initiatives taken for domestic manufacturing of solar & wind equipment, inter-alia, include those mentioned at **Annexure-I**.

The Ministry is also implementing a “Renewable Energy Research and Technology Development Programme (RE-RTD)” through various research institutions and industry to develop indigenous technologies and manufacturing for widespread applications of new and renewable energy including solar modules, wind turbines battery technologies and smart grids in efficient and cost-effective manner in the country.

(c) The Government of India proposed a scheme for “Setting up of Manufacturing Zones for Power and Renewable Energy Equipment”. As a pilot, Ministry of Power has sanctioned to set-up a Brownfield manufacturing zone with an outlay of Rs. 400 Crore over the years 2022-23 to 2026-27. Madhya Pradesh Industrial Development Corporation (MPIDC) was selected as the successful proposer for developing the Manufacturing Zone for Power and Renewable Energy Equipment (Pilot Project) at Mohasa Babai, Narmadapuram District, Madhya Pradesh. The zone facilitates green-manufacturing activities and generates direct and indirect employment through the creation of an integrated renewable-energy industrial ecosystem.

Annexure-I referred to in reply of parts (b) of the Lok Sabha Unstarred Question No. 532 to be answered on 03.12.2025

A. Initiatives taken to encourage domestic solar manufacturing, inter-alia, include:

(i) Production Linked Incentive (PLI) Scheme: The Government of India is implementing the Production Linked Incentive (PLI) Scheme for High Efficiency Solar PV Modules, for achieving domestic manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules, with an outlay of Rs. 24,000 crore. Under the Scheme, Letters of Award have been issued for setting up of 48,337 MW of fully/ partially integrated solar PV module manufacturing units.

(ii) Domestic Content Requirement (DCR): Under some of the current schemes of the MNRE, namely CPSU Scheme Phase-II, PM-KUSUM Components B & C, and PM Surya Ghar: Muft Bijli Yojana, wherein government subsidy is given, it has been mandated to source solar PV cells and modules from domestic sources.

(iii) Imposition of Basic Customs Duty on import of solar PV cells, modules, Solar Inverters and Solar Glass: The Government has imposed Basic Customs Duty (BCD) on import of solar PV cells, solar PV modules, solar inverters, and solar glass.

(iv) Exemption of Custom Duty on capital goods for manufacture of Solar Cells and Modules: The Government has exempted customs duty on import of the goods specified in List 41 of the notification No. 30/2024-Customs dated 23.07.2024, for the manufacturer of solar PV cells and modules.

B. Initiatives taken to encourage domestic wind manufacturing, inter-alia, include:

Ministry has put in place a procedure to enlist type and quality certified wind turbines under 'Approved List of Models & Manufacturers (Wind) (i.e. ALMM (Wind))'. It mandates Hub and Nacelle assembly / manufacturing facility shall be in India. Further, an amendment to ALMM (Wind) issued mandating sourcing of Major Wind Turbine Components like blade, tower, Gearbox, Generator and Special Bearings (Yaw, Pitch and Main Bearing) only from manufacturing facilities enlisted in Approved List of Models & Manufacturers (Wind Turbine Components) after inspection. Presently, 14 Manufacturers with 33 models with capacity ranging from 225 kW – 5.2 MW are in the latest ALMM (Wind) list of the Ministry. The current annual production capacity of wind turbines in the country is around 20000 MW.