

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 1105
ANSWERED ON 29/07/2025

PROGRESS AND CHALLENGES IN INDIA'S RENEWABLE ENERGY SECTOR

1105. SHRI BABUBHAI JESANGBHAI DESAI
SHRI JOSE K. MANI

Will the minister of new and renewable energy be pleased to state:

- (a) the current status of achieving India's renewable energy target of 500 GW by 2030 and the steps taken to meet the deadlines;
- (b) whether Government is facing any challenges such as financing, land acquisition, or grid integration in renewable energy projects;
- (c) the steps being taken to promote solar rooftop schemes and wind energy generation across rural and urban areas; and
- (d) whether the Ministry plans to incentivize domestic manufacturing under the Atmanirbhar Bharat initiative to reduce import dependency in the clean energy sector?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

- (a) As on 30.06.2025, 242.78 GW non-fossil fuel based electricity generation capacity has been installed in the country. The Government has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country to realize the target of 500 GW non-fossil fuel based electricity generation capacity by 2030, as given at **Annexure-I**.
- (b) Certain challenges that are highlighted by the developers of renewable energy projects are land acquisition, Right of Way (RoW) issues, certain delays in transmission connectivity which are regularly followed up for resolution.
- (c) Various steps taken by the Government to promote solar rooftop scheme namely the PM Surya Ghar Muft Bijli Yojana (PMSG: MBY) and wind energy generation across rural and urban areas are given at **Annexure-II**.
- (d) To reduce import dependency in the solar energy sector, the Ministry of New and Renewable Energy has been consistently bringing out policies to incentivize domestic manufacturing under the Atmanirbhar Bharat initiative. Various initiatives taken, inter-alia, include those mentioned at **Annexure-III**.

**Annexure-I referred to in reply of part (a) of the Rajya Sabha Unstarred Question
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The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country. These include, inter-alia, the following:

- Ministry of New & Renewable Energy (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.
- Inter State Transmission System (ISTS) charges have been waived for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- To boost RE consumption, Renewable Purchase Obligation (RPO) followed by Renewable Consumption Obligation (RCO) trajectory has been notified till 2029-30. The RCO which is applicable to all designated consumers under the Energy Conservation Act 2001 will attract penalties on non-compliance. RCO also includes specified quantum of consumption from Decentralized Renewable Energy sources.
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Dispatchable RE (FDRE) projects have been issued.
- 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 Grid-connected 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.

**Annexure-II referred to in reply of part (c) of the Rajya Sabha Unstarred Question
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Various steps taken by the Government to promote solar rooftop scheme namely the PM Surya Ghar Muft Bijli Yojana (PMSG: MBY) are:

- Online process from registration to disbursal of subsidy directly into the bank account of the residential consumer through National Portal.
- Availability of collateral free loan from nationalized banks at concessional interest rate of repo-rate plus 50 bps i.e. 6% per annum for the present with tenure of 10 years.
- Simplified the regulatory approval process by waiving technical feasibility requirement and introducing auto load enhancement upto 10 kW.
- Simplified process for registration of vendors to ensure sufficient and qualified vendors are available.
- Capacity building and training programmes being conducted for creating skilled manpower.
- Creating awareness about the scheme, through awareness and outreach program such as print advertising in leading newspapers, TV commercials campaigns, Radio campaigns across FM stations including regional channels, etc., in the country.
- Regular monitoring of the progress of the scheme at different levels including with states/DISCOMs.
- Established grievance redressal mechanism for timely resolution of grievances. A Call Centre with telephone number 15555 is operational in 12 languages.

To harness wind energy in the country, the following specific steps have been taken in addition to general steps taken to harness renewable energy:

- Declaration of trajectory for Wind Renewable Consumption Obligation (RCO) up to the year 2030,
- Issuance of National Repowering & Life Extension Policy for Wind Power Projects
- Concessional custom duty exemption on parts and sub-parts of certain components required for manufacturing of wind electric generators,
- Generation Based Incentive (GBI) is being provided to the wind projects commissioned on or before 31 March 2017,
- Technical support including wind resource assessment and identification of potential sites through the National Institute of Wind Energy, Chennai.

**Annexure-III referred to in reply of part (d) of the Rajya Sabha Unstarred Question
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Initiatives taken to incentivize domestic solar manufacturing under the Atmanirbhar Bharat initiative, 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) Preference to ‘Make in India’ in Public Procurement: In accordance with Department for Promotion of Industry and Internal Trade (DPIIT) ‘Public Procurement (Preference to Make in India), Order’, MNRE had notified Purchase Preference (linked with local content) for RE sector which, inter-alia, identified list of all goods and services or works in respect of which there is sufficient local capacity and local competition is available and mandated that only “Class-I local supplier” shall be eligible to bid for the above goods/services/works with the mandate that minimum local content should be at least 50%.

(iv) 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, modules, solar inverters, and solar glass.

(v) Discontinuation of Customs Duty Concessions: MNRE has discontinued issuance of Customs Duty Concession Certificates for import of material /equipment for initial setting up of solar PV power projects with effect from 02.02.2021.

(vi) 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.