

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 356
ANSWERED ON 12.08.2026

**ROADMAP TO ACCELERATE ADOPTION OF RENEWABLE ENERGY
PROJECTS**

*356. SMT. SUPRIYA SULE:
SHRI MOHITE PATIL DHAIRYASHEEL RAJSINH

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

- (a) whether the Government has prepared a roadmap to accelerate the adoption of rooftop solar, floating solar and other renewable energy projects across Maharashtra in line with the country's clean energy goals;
- (b) if so, the details of projects sanctioned, installed capacity achieved, beneficiaries covered and financial assistance provided under the Pradhan Mantri-Surya Ghar Muft Bijli Yojana (PMSGBY), Pradhan Mantri-Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) and other central renewable energy schemes in Maharashtra during the last three years;
- (c) whether the Union Government proposes to provide additional support for expanding rooftop solar, energy storage, grid integration and decentralized renewable energy systems in urban and rural areas of the said State; and
- (d) the steps taken or proposed by the Union Government in coordination with the State Government of Maharashtra to encourage greater public participation, attract private investment and accelerate Maharashtra's transition towards clean, affordable and sustainable energy?

ANSWER

**THE MINISTER OF NEW & RENEWABLE ENERGY, CONSUMER AFFAIRS &
FOOD AND PUBLIC DISTRIBUTION AND EDUCATION.**

(SHRI PRALHAD JOSHI)

(a) to (d) A statement is laid on the Table of the House.

STATEMENT

Statement referred to in reply to parts (a) to (d) of the Lok Sabha Starred Question No. 356 to be answered on 12.08.2026 regarding 'Roadmap to Accelerate Adoption of Renewable Energy Projects'

(a) To accelerate adoption of rooftop solar across all the States/UTs in the country including Maharashtra, the Government has launched PM-Surya Ghar: Muft Bijli Yojana (PM-SGMBY) in February, 2024 with the target of rooftop solar installations in one crore households by 2026-27.

Further, to support setting up of Solar Parks in the country, Government has been implementing scheme for 'Development of Solar Parks and Ultra-Mega Solar Power Projects'. To specifically promote setting up floating solar parks in the country, the Union Cabinet has approved the PM Surya Sarovar Yojana (PM-SSY) with a total Central Financial Assistance outlay of Rs.5,070 crore for the period from FY 2026-27 to FY 2030-31, with disbursement of financial support continuing up to FY 2032-33.

Government has also been implementing other renewable energy schemes/programmes to promote and accelerate other renewable energy projects in the country including Maharashtra as given at **Annexure-I**.

Further, as per the information received from Maharashtra Energy Development Agency (MEDA), Government of Maharashtra has notified the Maharashtra Renewable Energy & Energy Storage Policy 2025–2035 with the objective of accelerating green energy development in the State. The Policy envisages meeting approximately 52% of the State's electricity demand from renewable energy by FY 2030 and around 65% by FY 2035. Maharashtra State Power Generation Co. Ltd. (MAHAGENCO) has targeted renewable energy capacity addition of 8 GW till 2030 across the State of Maharashtra.

(b) During the last three years, a total of 16176.13 MW renewable energy capacity has been installed in the State of Maharashtra which includes 14899.27 MW solar power, 914.38 MW wind power, 359.28 MW bio power and 3.20 MW small hydro power.

Under PM-SGMBY, as per the national portal of the scheme, 10.96 lakh households have been benefitted with rooftop solar installation of aggregate capacity of 2608.12 MW in the State since the launch of the scheme upto 05.08.2026.

Further the details of projects installed under PM-KUSUM Components-A, B and & C during the last three years against the sanctioned capacity in the State of Maharashtra are given below:

Component-A (In MW)		Component-B (No. of pumps)		Component-C (FLS) (No. of pumps)	
Sanctioned	Installed	Sanctioned	Installed	Sanctioned	Solarized
260.00	17	5,75,000	4,79,135	8,75,000	8,75,000

The details of funds released for the renewable energy projects in Maharashtra under the major ongoing schemes/programmes of the Ministry of New and Renewable Energy during the last three years are given below:

Scheme/Programme	Funds released (in Rs. Crore)
Rooftop Solar	4793.09
PM-KUSUM	4924.53
National Bioenergy Programme	97.81

(c) & (d) Most of utility-scale renewable energy projects in the country are being set up by developers, selected through a transparent bidding process. Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity including support for expanding rooftop solar, energy storage, grid integration and decentralized renewable energy systems in the country, including the State of Maharashtra, as given at **Annexure-II**. Further, Government of Maharashtra has notified the Maharashtra Renewable Energy & Energy Storage Policy 2025–2035 with the objective of accelerating green energy development in the State.

For effective implementation of schemes in States and to encourage greater public participation, the Ministry conducts periodic review and handholding meetings with the States. This also includes capacity building workshops and public awareness programs throughout the country including in Regional workshop in Mumbai. Further, as per the information received from MEDA, apart from CFA provided to the beneficiaries by Central Government, additional support is provided by State Government.

Details of the ongoing major Renewable Energy Schemes / Programmes

1. Scheme for Development of Solar Parks and Ultra-mega Solar Power Projects with a target of setting up 40,000 MW capacity. Under the scheme, the infrastructure such as land, roads, power evacuation system, water facilities are developed with all statutory clearances/approvals. Thus, the scheme helps expeditious development of utility-scale solar projects in the country.
2. PM-KUSUM Scheme for setting up decentralized solar or other renewable energy power plants, installation of stand-alone solar agriculture pumps, and solarization of existing grid-connected agriculture pumps, including feeder-level solarization. The scheme benefits not only farmers but also the States and DISCOMs.
3. Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by Government Producers, using domestically manufactured solar PV cells and modules, with Viability Gap Funding (VGF) support, for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS).
4. Green Energy Corridors (GEC) to create intra-state transmission system for renewable energy projects. Central Financial Assistance (CFA) is provided to set up transmission infrastructure for evacuation of Power from Renewable Energy projects in total ten States (considering both the phases of GEC).
5. National Bio-Energy Programme (Phase-I):
 - Waste to Energy Programme: Programme on Energy from Urban, Industrial and Agricultural Wastes/Residues
 - Biomass Programme: Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries.
 - Biogas Programme : for promotion of family type Biogas plants
6. 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) with a provision for providing off-grid Solar Lighting where electricity supply through grid is not techno-economically feasible.
7. Small Hydro Power (SHP) Development Scheme (1MW to 25MW) for the period FY 2026-27 to FY 2030-31. The Scheme targets installation of approximately 1,500MW of new SHP capacity across India.

The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity including support for expanding rooftop solar, energy storage, grid integration and decentralized renewable energy systems in the country, including the State of Maharashtra. These include, inter-alia, the following:

- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Dispatchable Renewable Energy (FDRE) projects have been issued.
- Pilot scheme for Contract for Difference (CfD) for renewable energy projects of 500 MW capacity issued. The CfD mechanism, a globally proven framework, will provide an alternative instrument (in addition to long term Power Purchase Agreements) for sale of renewable energy, through power exchanges.
- 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.
- Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
- 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, Small hydro power development scheme 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.
- Waiver on Inter State Transmission System (ISTS) charges for renewable energy projects including green hydrogen projects, with certain timelines and conditions.
- 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.

- Quality Control Orders for Solar Photovoltaic products (i.e., Solar PV Modules, Solar PV Inverters & Storage Battery) and Solar Water Heating systems notified.
- 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.
- 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.
- The Revised Guidelines for installation of prototype wind turbine models issued on 12th June 2025.
- Procedure for inclusion/updating Wind Turbine Model in the Revised List of Models and Manufacturers of Wind Turbines (RLMM) issued on 31st July 2025. The amendment renames RLMM as Approved List of Models and Manufacturers [ALMM (Wind)] and mandates usage of listed components such as Blade, Tower, Generator, Gearbox and Special Bearings (Main, Pitch and Yaw Bearing) along with mandatory relocation of data centres within India and prohibition of real-time data transfer outside India.
- The Standard Operating Procedure (SOP) for ALMM-Wind and ALMM – Wind Turbine Components (ALMM-WTC) issued on 29th October 2025, detailing the end-to-end process for application, verification, factory inspection, component evaluation and model enlistment.
- Standard & Labelling (S&L) programs for Solar Photovoltaic modules and Grid-connected Solar Inverters have been launched.
- 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, 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 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.

- The Electricity Rules were amended in December 2022 to explicitly recognise Energy Storage Systems (ESS) as an integral part of the power system, enabling their participation across generation, transmission and distribution functions.
- In October 2022, ESS were included in the Harmonised Master List of Infrastructure of the Ministry of Finance, facilitating access to long-tenure and lower-cost financing.
- In June 2023, the Government issued Guidelines for Preparation of Resource Adequacy Plans by State utilities, under which energy storage has been incorporated as a key planning resource for meeting peak demand and ensuring system reliability.
- A National Framework for Promotion of Energy Storage Systems was issued in September 2023, providing a comprehensive roadmap for deployment, market integration and regulatory facilitation of storage technologies.
- Waiver of Inter-State Transmission System (ISTS) charges has been provided for co-located BESS projects commissioned and PSPs awarded up to June 2028, to improve project viability. For other BESS projects, 100% waiver of ISTS charges was provided for the BESS commissioned till June, 2025, with 25% annual reduction thereafter.
- In January 2022, CERC allowed storage-based resources to provide ancillary services, including secondary and tertiary reserves, enabling ESS to support real-time grid balancing alongside conventional generators.
- Tariff-Based Competitive Bidding (TBCB) Guidelines for procurement of BESS and Hydro PSP by distribution licensees were notified in March 2022, and February, 2025, respectively, creating a transparent mechanism for large-scale storage procurement.
- Under the Electricity (Rights of Consumers) Rules, 2020, amended in December 2022, consumers using diesel generator sets have been mandated to shift to cleaner backup solutions, including energy storage, within timelines specified by State Commissions.
- Electricity supplied from BESS has been allowed to participate in the High-Price Day-Ahead Market, launched in March 2023, enabling storage to respond to peak price signals similar to gas-based generation.
- The Government is implementing two Viability Gap Funding (VGF) schemes to support development of approximately 43.8 GWh of Battery Energy Storage Systems, to accelerate early-stage deployment.
- The Ministry of Heavy Industries is implementing a Production Linked Incentive (PLI) Scheme with an outlay of ₹18,100 crore for establishing 50 GWh of Advanced Chemistry Cell manufacturing capacity, of which 10 GWh is earmarked for grid-scale storage.
- For pumped storage projects, a grant for enabling infrastructure is provided at the rate of ₹1 crore per MW for the first 200 MW and 70.75 crore per MW thereafter.

- CERC has allowed separate grid connectivity during non-solar hours, enabling additional renewable capacity at existing substations and facilitating storage-based shifting of power to evening and night hours.
- Statutory concurrence of the Central Electricity Authority has been dispensed with for closed-loop, off-stream pumped storage projects to expedite project development.
- Through amendment of the Electricity Rules in September 2025, energy storage systems have been permitted to be developed, owned, leased or operated by consumers, expanding the range of ownership and business models.
- In February 2025, CEA issued an advisory on co-location of ESS with solar power projects, recommending storage capacity of at least 10% of installed solar capacity for a minimum duration of two hours, to improve dispatchability of solar power.
