

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 222
ANSWERED ON 07/08/2024

NON-FOSSIL ENERGY

*222. SHRI DEVUSINH CHAUHAN
SHRI JANARDAN SINGH SIGRIWAL

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the steps undertaken by the Government to realize the commitment of 500 GW non-fossil energy capacity by 2030;
- (b) the details of the financial assistance provided to States to increase the production of green energy; and
- (c) the steps undertaken to generate hydrogen fuel and increase its adoption?

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

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION

No.222 for ANSWER ON 07.08.2024

(a) The Government of India 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 power capacity by 2030, as given at **Annexure-I**.

(b) At present, most of the utility-scale renewable energy projects in the country are being set up by private sector developers, selected through a transparent bidding process. However, Ministry of New and Renewable Energy (MNRE) has been implementing Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), Development of Solar Parks and Ultra-Mega Solar Power Projects, and PM Surya Ghar: Muft Bijli Yojana schemes under which incentive as Central Financial Assistance (CFA) is provided to the State Implementing Agencies (SIAs) / DISCOMS / Local Bodies, for implementation of the respective schemes. Details are given at **Annexure-II**.

(c) Government is implementing the National Green Hydrogen Mission, approved by the Union Cabinet in January 2023, with an overall outlay of Rs. 19,744 crore. The overarching objective of the Mission is to make India a global hub of production, usage and export of Green Hydrogen and its derivatives. The details of schemes launched under the Mission and steps undertaken are given at **Annexure-III**.

Annexure I referred to in reply of part (a) of the Lok Sabha Starred Question No.222 to be answered on 07.08.2024

The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country to realize the commitment of 500 GW non-fossil energy capacity by 2030. These include, inter-alia, the following:

- Notification of trajectory for RE power bids of 50 GW/annum to be issued by Renewable Energy Implementation Agencies [REIAs: Solar Energy Corporation of India Limited (SECI), National Thermal Power Corporation (NTPC), National Hydroelectric Power Corporation (NHPC), Satluj Jal Vidyut Nigam (SJVN)] 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 inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025, for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- To boost RE consumption, Renewable Purchase Obligation (RPO) trajectory has been notified till 2029-30, including separate RPO for Decentralized Renewable Energy.
- Project Development Cell for attracting and facilitating investments has been set up.
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind and Wind-Solar 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, National Green Hydrogen Mission, have been launched.
- Scheme for setting up of Ultra Mega Renewable Energy Parks 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.
- Cabinet has approved the Viability Gap Funding (VGF) scheme for offshore wind energy projects for installation and commissioning of 1 GW of offshore wind energy projects (500 MW each off the coast of Gujarat and Tamil Nadu)
- “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.
- Procedure for Uniform Renewable Energy Tariff (URET) has been issued.
- 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.
- Green Energy Open Access Rules 2022 have been notified for promoting renewable energy.
- 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 (b) of the Lok Sabha Starred Question No.222 to be answered on 07.08.2024

Incentives being provided as Central Financial Assistance (CFA) for the implementation of major Renewable Energy Schemes/Programmes

Scheme/Programmes	Incentives presently available as per the Scheme
PM Surya Ghar: Muft Bijli Yojana	<p>i) The scheme includes the provision for incentive to DISCOMs to motivate and help them in activities such as create conducive regulatory and administrative mechanisms, achieve targets for implementation. The incentive is pegged at 5% of applicable benchmark cost for capacity achieved above 10% and less than 15% of installed base capacity; 10% of the applicable benchmark cost for capacity achieved beyond 15% of installed base capacity.</p> <p>ii) To push the deployment of residential rooftop solar system (RTS) and undertake local mobilization efforts, the scheme includes the provision for incentive to the Urban Local Bodies (ULBs) and Panchayat Raj Institutions (PRIs), at the rate of Rs.1000 for every installation of RTS in residential segment in the jurisdiction of ULB/PRI, for which CFA has been transferred to consumer.</p> <p>iii) A fund of Rs. 800 crore has been provisioned for developing a Model Solar Village in each district of the country, with an assistance of Rs 1 crore per Model Solar Village.</p>
Solar Park Scheme	<p>(a) Up to Rs. 25 lakhs per Solar Park, for preparation of Detailed Project Report (DPR).</p> <p>(b) Rs. 20 lakh per MW or 30% of the project cost, whichever is lower, for development of infrastructure.</p>
PM-KUSUM scheme	<p>Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants</p> <p>Benefits available: Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar power under this scheme. The PBI is given to the DISCOMs for a period of five years from the Commercial Operation Date of the plant. Therefore, the total PBI payable to DISCOMs is up to Rs. 33 Lakh per MW.</p> <p>Component B: Installation of 14 Lakh Stand-alone Solar Pumps</p> <p>Benefits available: CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar</p>

Scheme/Programmes	Incentives presently available as per the Scheme
	<p>agriculture pump is provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Lakshadweep and A&N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar pump is provided. Component B can also be implemented without State share of 30%. The Central Financial Assistance will continue to remain 30% and rest 70% will be borne by the farmer.</p> <p>Component C: Solarisation of 35 Lakh Grid Connected Agriculture Pumps including through Feeder Level Solarisation</p> <p>Benefits available:</p> <p>(a) Individual Pump Solarization (IPS): CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component is provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Lakshadweep and A&N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component is provided. Component C (IPS) can also be implemented without State share of 30%. The Central Financial Assistance will continue to remain 30% and rest 70% will be borne by the farmer.</p> <p>(b) Feeder Level Solarization (FLS): Agriculture feeders can be solarized by the State Government in CAPEX or RESCO mode with CFA of Rs. 1.05 Crore per MW as provided by MNRE. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarkhand, Lakshadweep and Andaman & Nicobar Island, CFA of Rs. 1.75 crore per MW is provided.</p>

Annexure III referred to in reply of part (c) of the Lok Sabha Starred Question No. 222 to be answered on 07.08.2024

Details of schemes launched and steps undertaken under the National Green Hydrogen Mission

The following schemes have been launched under the National Green Hydrogen Mission so far:

- i. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing” have been issued on 28th June 2023.
- ii. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive Scheme for Green Hydrogen Production (under Mode 1)” have been issued on 28th June 2023.
- iii. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive for Procurement of Green Ammonia Production (under Mode 2A)” have been issued on 16th January 2024.
- iv. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive for Procurement of Green Hydrogen production (under Mode 2B)” have been issued on 16th January 2024.
- v. Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Shipping Sector have been issued on 1st February 2024.
- vi. Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Steel Sector have been issued on 2nd February 2024.
- vii. Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Transport Sector have been issued on 14th February 2024.
- viii. Scheme Guidelines for the implementation of the Research & Development Scheme have been issued on 15th March 2024.
- ix. Scheme Guidelines for setting up Hydrogen Hubs in India have been issued on 15th March 2024.
- x. Scheme Guidelines for scheme on skilling, up-skilling and re-skilling have been issued on 16th March 2024.
- xi. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing Tranche – II” have been issued on 16th March 2024.
- xii. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive Scheme for Green Hydrogen Production (under Mode 1) – Tranche II” have been issued on 3rd July 2024.

- xiii. Scheme Guidelines for funding of testing facilities, infrastructure, and institutional support for development of Standards and Regulatory framework have been issued on 4th July 2024.

Other steps taken for promotion of Green Hydrogen inter – alia, include the following:

- i. Green Hydrogen/Green Ammonia Plants commissioned on or before 31.12.2023, and which utilize renewable energy for the production of Green Hydrogen or Green Ammonia, have been granted exemption from the payment of ISTS charges for a period of 25 years, starting from the date of commissioning of the project.
- ii. Standalone plants producing Green Hydrogen/Green Ammonia by way of electrolysis of water using Renewable Energy, have been exempted from requirement of prior Environmental Clearance under the provisions of the Environment Impact Assessment Notification 2006.
- iii. Duty benefits under Section 26 of SEZ Act, 2005 have been allowed to the units for installation as well as O&M of renewable energy equipment exclusively for captive consumption of the unit.
- iv. Exemption has been granted from ALMM and RLMM requirements for Renewable Energy plants located inside a Special Economic Zone (SEZ) or Export Oriented Unit (EOU) and supplying power exclusively for production plants of Green Hydrogen (or its derivatives), which are located inside an SEZ or set up as an EOU.
- v. 8 companies have been allocated 1.5 GW per annum of electrolyser manufacturing capacity under Component I: Incentive Scheme for Electrolyser Manufacturing (Tranche I), of the SIGHT programme.
- vi. 10 companies have been allocated 4,12,000 tonnes per annum of Green Hydrogen production capacity under Component II: Incentive Scheme for Green Hydrogen Production (under Mode 1 Tranche I) of the SIGHT programme.