

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 31
ANSWERED ON 24/07/2024

RENEWABLE ENERGY PRODUCTION

*31. SHRI TATKARE SUNIL DATTATREY
SMT. APARAJITA SARANGI

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

- (a) the total renewable energy produced in India during the year 2013 and the current year;
- (b) the measures taken/proposed to be taken and schemes introduced to promote renewable energy sources;
- (c) the steps taken/being taken by the Government to implement green energy corridors;
- (d) the amount of subsidy allocated and disbursed during the last five years and the current year for adopting renewable energy sources, State/UT-wise including Odisha; and
- (e) the details of the subsidy schemes currently active for solar parks?

ANSWER

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

(SHRI PRALHAD JOSHI)

(a) to (e) A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION

No.31 for ANSWER ON 24-07-2024

- a) As per the information received from Central Electricity Authority, the total renewable energy (RE) generation in the India during 2013-14 was 193.50 billion units (BU) and during 2023-24 it was 359.89 BU (i.e. 86% increase). During the current financial year 2024-25 (till 31st May), the total RE generation is 61.84 BU.
- b) Government has undertaken several measures to promote development of RE in the country as given at **Annexure-I**. Details of the various schemes being implemented by the Ministry of New and Renewable Energy (MNRE) for promotion of renewable energy are given at **Annexure-II**.
- c) MNRE is implementing the Green Energy Corridor (GEC) schemes as given below:
- (i) Intra-State Transmission System GEC Phase-I for setting up 9767 circuit kilometers (ckm) transmission lines and 22689 Mega Volt-Amperes (MVA) substations in 8 states (Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu) for power evacuation and grid integration of 24 GW. The project cost is Rs. 10,141.68 crore with Central Financial Assistance (CFA) @ 40% of project cost, i.e. Rs. 4056.67 crore.
 - (ii) Intra-State Transmission System GEC Phase-II for setting up 10753 ckm transmission lines and 27546 MVA substations in 7 states (Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh) for power evacuation and grid integration of 20 GW. The project cost is Rs. 12,031.33 crore with CFA @ 33% of project cost, i.e. Rs. 3970.34 crore.
 - (iii) Inter-State Transmission System GEC Phase-II for 13 GW RE project in Ladakh. The project entails setting up of 713 km transmission lines [including 480 km High-voltage direct current (HVDC) transmission line] and 5 GW capacity of HVDC terminal each at Pang (Ladakh) and Kaithal (Haryana). The project cost is Rs. 20,773.70 crore with CFA @ 40% of project cost, i.e. Rs. 8,309.48 crore.

- d) No State-wise allocation of funds is made by the Ministry. It is implementing various schemes and programmes for development and deployment of renewable energy, under which Central Financial Assistance (CFA) is released in accordance with respective scheme guidelines. The State/UT-wise, including for the state of Odisha, details of CFA disbursed during the last five years (i.e. FY 2019-20 to 2023-24) and the current financial year under major schemes/programmes of MNRE for adopting renewable energy sources are given at **Annexure-III**.
- e) MNRE is implementing a scheme for “Development of Solar Parks and Ultra-Mega Solar Power Projects.” Under the scheme, Central Financial Assistance (CFA) of up to Rs. 25 lakh per Solar Park is provided for the preparation of Detailed Project Report (DPR). Beside this, CFA of up to Rs. 20 lakh per MW or 30% of the project cost (including grid-connectivity cost) whichever is lower, is also provided for the development of the Solar Parks as per the Scheme.

**Annexure-I referred to in reply of part (b) of the Lok Sabha Starred Question No. 31 to
be answered on 24.07.2024**

The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country with the target to achieve 500 GW of installed electric capacity from non-fossil sources by 2030. These are including, inter-alia, the following:

- Notification of trajectory for RE power bids of 50 GW/annum to be issued by Renewable Energy Implementation Agencies (REIAs: SECI, NTPC, NHPC, SJVN) from FY 2023-24 to FY 2027-28.
- Foreign Direct Investment (FDI) permitted up to 100 percent under the automatic route.
- Waiver of Inter State Transmission System (ISTS) charges 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 announced 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, Development of 1 GW Offshore Wind Energy Projects, etc.
- Setting up of Ultra Mega Renewable Energy Parks 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 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 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.
- Notification of “The Electricity (Late Payment Surcharge and related matters) Rules (LPS rules) issued.
- Notification of Promoting Renewable Energy through Green Energy Open Access Rules 2022 issued.
- Launched Green Term Ahead Market (GTAM) 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. 31 to be answered on 24.07.2024

Details of the major ongoing 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. Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 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).
3. Production Linked Incentive scheme 'National Programme on High Efficiency Solar PV Modules' for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules (Tranche - I & II).
4. PM-KUSUM Scheme to promote small Grid Connected Solar Energy Power Plants, stand-alone solar powered agricultural pumps and solarization of existing grid connected agricultural pumps. The scheme is not only beneficial to the farmers but also States and DISCOMs. States save on subsidy being provided for electricity to agriculture consumers and DISCOMs get cheaper solar power at tail end saving transmission and distribution losses.
5. PM-Surya Ghar: Muft Bijli Yojana for installing rooftop solar for 1 Crore households.
6. Green Energy Corridors (GEC) Phase I and II: to create intra-state transmission system for renewable energy projects.
7. Bio-Energy Programme:
 - 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

8. Renewable Energy Research and Technology Development (RE-RTD) Programme.

9. Human Resource Development Scheme with components such as short-term trainings & skill development programmes, fellowships, internships, support to lab upgradation for RE and renewable energy chair.

10. National Green Hydrogen Mission launched with aim to make India a Global Hub for production, utilization and export of Green Hydrogen and its derivatives.

Annexure-III referred to in reply of part (d) of the Lok Sabha Starred Question No. 31 to be answered on 24.07.2024

Details of CFA disbursed under major schemes/programmes of MNRE during the last five years and the current year (in Rs. Crore)							
S.No.	State/UT	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25 (Upto June)
1	Andhra Pradesh	30.66	62.32	5.44	148.48	53.28	0.00
2	Arunachal Pradesh	24.07	25.42	11.36	11.14	2.51	0.00
3	Assam	33.29	3.11	10.2	15.89	3.26	0.00
4	Bihar	1.38	1.49	1.21	0	9.30	0.00
5	Chhattisgarh	5.16	2.5	3.18	27.56	22.68	2.80
6	Goa	0	0.08	3.6	0	3.00	0.00
7	Gujarat	124.33	106.18	1237.79	1604.91	1206.51	189.79
8	Haryana	18.51	55.45	178.35	162.13	443.98	204.00
9	Himachal Pradesh	32.04	73.98	33.44	15.63	48.50	0.00
10	Jharkhand	10.84	16.05	6.63	58.19	2.36	0.00
11	Karnataka	16.48	70.71	3.97	145.77	170.78	0.00
12	Kerala	3.57	12.37	37.16	106.61	133.92	16.21
13	Madhya Pradesh	94.84	49.42	76.16	241.38	93.94	0.00
14	Maharashtra	55.94	106.61	75.09	409.26	526.87	0.00
15	Manipur	16.86	23.06	14.89	6.09	1.29	16.03
16	Meghalaya	7.14	1.23	0	0	2.20	325.11
17	Mizoram	16.12	20.33	3.29	8.46	8.99	0.16
18	Nagaland	16.55	10.69	5.86	0.87	0.35	0.00
19	Odisha	11.04	1.12	5.66	46.69	10.81	2.44
20	Punjab	22.23	23.34	45.78	87.81	19.95	0.00
21	Rajasthan	88.6	105.6	166.11	382.88	285.97	0.60
22	Sikkim	0.05	0	0.03	1.37	0.00	0.00
23	Tamil Nadu	55.44	30.28	158.85	112.37	18.65	94.39
24	Telangana	28.17	23.12	20.18	56.94	24.52	0.00
25	Tripura	12.98	18.48	16.88	2.72	18.68	18.25
26	Uttar Pradesh	64.33	74.11	39.11	147.64	223.33	1.30
27	Uttarakhand	23.99	11.59	22.68	12.63	8.44	0.00
28	West Bengal	13.38	0	0.51	12.38	2.14	145.27
29	Andaman & Nicobar	0	1.01	0	0	1.75	31.75
30	Chandigarh	5.13	0.85	0	2	3.30	0.00
31	Dadar & Nagar Haveli and Daman & Diu	0	0	0	0	0.11	0.00
32	Delhi	11.63	56.28	99.15	4.92	4.73	0.00
33	Jammu & Kashmir	21.39	4.89	51.76	29.48	0.00	0.00
34	Ladakh	0	9.31	18.41	8.79	6.57	0.00
35	Lakshadweep	0	0	0	0	0.00	0.00
36	Pondicherry	0.79	0	0.03	0	0.00	0.00
37	Others*	2564.23	1875.56	4333.76	1875.06	443.50	600.60
Total		3431.16	2876.54	6686.52	5746.05	3806.16	1648.70

* SECI/CPSUs/NISE/NIWE/NIBE