

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 1523
ANSWERED ON 04/12/2024

ELECTRICITY THROUGH RENEWAL SOURCES

1523. SHRI ROBERT BRUCE C

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

- (a) the amount of electricity produced by renewable energy sources, State-wise
- (b) the measures taken and schemes introduced to promote renewable energy sources;
- (c) the total amount of electricity produced by renewable energy sources in the State of Tamil Nadu, district-wise;
- (d) the steps taken to implement green power corridors; and
- (e) the amount of subsidy allocated and disbursed for adopting renewable energy sources, State-wise?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

- (a) State-wise details of electricity produced by renewable energy (RE) sources during the year 2023-24, as received from Central Electricity Authority (CEA), are given at **Annexure-I**.
- (b) Government of India has taken several steps and initiatives, including launch of various schemes, to promote and accelerate renewable energy capacity in the country. Details are given at **Annexure-II**.
- (c) District-wise details of electricity generation are not maintained.
- (d) For setting up of transmission infrastructure for evacuation of RE in the country, Ministry of New and Renewable Energy(MNRE) is implementing Green Energy Corridor scheme in 10 States namely Andhra Pradesh, Gujarat, Rajasthan, Himachal Pradesh, Karnataka, Maharashtra, Madhya Pradesh, Tamil Nadu, Kerala and Uttar Pradesh. There is a provision of Central Grant Assistance of upto 40% of project cost in the Intra State transmission scheme (InSTS). Further, a project for setting up Inter State Transmission System (ISTS) for power evacuation and grid integration of the 13 GW RE projects in Ladakh and dispatch of power from the U.T. of Ladakh to other parts of the country, is also being implemented. Under this project the Central Grant Assistance is 40%.
- (e) No State-wise allocation of funds is made by the Ministry. The Central Financial Assistance (CFA) is released in accordance with the respective scheme guidelines. State-wise details of CFA released during the last financial year (2023-24) under major renewable energy schemes being implemented by the Ministry are given at **Annexure-III**.

**Annexure-I referred to in reply of part (a) of the Lok Sabha Unstarred Question
No. 1523 to be answered on 4.12.2024**

State-wise and source wise details of RE generation during the year 2023-24

[in Million Units (MU)]

S. No.	Name of State/ UT	Wind	Solar	Biomass	Bagasse	Small Hydro	Large Hydro*	Others	Total
1	Andaman & Nicobar Islands	0.00	27.50	0.00	0.00	12.00	0.00	0.00	39.50
2	Andhra Pradesh	8644.00	8300.03	18.75	66.63	127.10	1373.19	307.97	18837.67
3	Arunachal Pradesh	0.00	1.89	0.00	0.00	0.66	4278.18	0.00	4280.73
4	Assam	0.00	316.31	0.00	0.00	64.20	614.70	0.75	995.96
5	Bihar	0.00	195.19	0.00	140.98	5.92	0.00	0.00	342.08
6	Chandigarh	0.00	11.70	0.00	0.00	0.00	0.00	0.00	11.70
7	Chhattisgarh	0.00	943.75	1368.61	19.54	145.54	321.76	0.00	2799.20
8	Dadra and Nagar Haveli and Daman and Diu	0.00	15.74	13.12	0.00	0.00	0.00	0.00	28.86
9	Delhi	0.00	206.53	0.00	0.00	0.00	0.00	522.28	728.81
10	Goa	0.00	59.99	0.00	0.00	0.00	0.00	7.96	67.95
11	Gujarat	24794.50	13468.91	0.00	2.13	217.68	4556.33	0.00	43039.55
12	Haryana	0.00	992.91	294.12	83.60	222.05	0.00	58.82	1651.50
13	Himachal Pradesh	0.00	59.54	0.00	0.00	2526.98	36365.85	0.00	38952.37
14	Jammu & Kashmir	0.00	0.00	0.00	0.00	408.69	15874.24	0.00	16282.93
15	Jharkhand	0.00	17.64	0.00	0.00	5.52	196.80	0.00	219.96
16	Karnataka	10950.20	15404.09	47.45	2754.06	1370.76	8973.17	0.00	39499.72
17	Kerala	214.53	1195.28	0.00	78.08	716.31	5155.72	0.04	7359.96
18	Ladakh	0.00	0.00	0.00	0.00	0.00	388.48	0.00	388.48
19	Lakshadweep	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.09
20	Madhya Pradesh	4949.78	4025.19	84.62	97.01	469.60	6444.78	28.83	16099.80
21	Maharashtra	8228.97	5814.13	304.61	3495.82	888.48	5264.49	33.40	24029.90
22	Manipur	0.00	7.73	0.00	0.00	0.00	298.18	1.23	307.14
23	Meghalaya	0.00	0.00	0.00	0.00	66.55	808.58	0.00	875.13
24	Mizoram	0.00	3.19	0.00	0.00	95.93	118.63	0.00	217.74
25	Nagaland	0.00	0.00	0.00	0.00	81.14	165.47	0.00	246.61
26	Odisha	0.00	757.69	96.07	0.00	407.97	6162.20	0.00	7423.92
27	Puducherry	0.00	12.24	0.00	0.00	0.00	0.00	0.00	12.24
28	Punjab	0.00	2673.99	613.44	197.99	636.97	4676.42	0.00	8798.82
29	Rajasthan	8390.67	38363.28	387.55	0.00	7.45	1013.97	0.00	48162.93
30	Sikkim	0.00	0.00	0.00	0.00	12.35	8609.86	0.00	8622.21
31	Tamil Nadu	16908.08	11737.48	129.14	622.61	206.00	3563.28	0.00	33166.59
32	Telangana	304.63	6884.68	10.57	95.08	58.87	1243.29	155.29	8752.39
33	Tripura	0.00	7.01	0.00	0.00	0.00	0.00	0.00	7.01
34	Uttar Pradesh	0.00	3971.31	46.65	2923.55	175.24	850.64	84.85	8052.23
35	Uttarakhand	0.00	331.80	0.00	248.52	350.62	13919.23	0.00	14850.17
36	West Bengal	0.00	168.32	2.49	0.00	204.46	2816.49	1545.13	4736.88
	Total	83385.35	115975.11	3417.19	10825.59	9485.04	134053.93	2746.55	359888.76

* Large hydro generation Excluding Import from Bhutan

Source: Central Electricity Authority (CEA)

**Annexure-II referred to in reply of part (b) of the Lok Sabha Unstarred Question
No. 1523 to be answered on 4.12.2024**

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:

- 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 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) 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.
- 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, 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, National Green Hydrogen Mission, Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects 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.
- “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.
- For Electrolyser Manufacturing, contracts have been awarded / are under process for a capacity of 3,000 MW per annum.
- For Green Hydrogen production, capacity has been awarded for 4,12,000 tons per annum.

**Annexure-III referred to in reply of part (e) of the Lok Sabha Unstarred Question
No. 1523 to be answered on 4.12.2024**

State-wise details of CFA released under major schemes being implementing by MNRE during 2023-24

(Rs. in Crore)

State	Year 2023-24									
	Solar Parks	Rooftop Solar	PM KUSUM	CPSU	Solar Off-grid	Small Hydro Power	Waste to Energy	Biomass	Biogas	Green Energy Corridor
A&N Islands					1.75					
Andhra Pradesh		3.0		22.45			2.74			47.54
Arunachal Pradesh			2.12						0.39	
Assam		2.0		6.80					1.26	
Bihar		9.3								
Chandigarh		3.3								
Chhattisgarh	14.30	1.2			6.23				0.95	
Dadra & Nagar Haveli and Daman & Diu									0.11	
Delhi		4.5							0.23	
Goa							3.00			
Gujarat	505.13	639.1	28.72	145.91		1.58			8.14	23.85
Haryana		13.5	429.78			0.70				
Himachal Pradesh		2.4			5.00	0.60				40.50
Jammu & Kashmir										
Jharkhand			2.36							
Karnataka		7.9	2.38	112.35			6.61		6.77	147.12
Kerala		104.2	28.53		0.74	0.45				
Ladakh						6.57				
Lakshadweep										
Madhya Pradesh	59.26	3.8	0.80				0.84		6.97	22.26
Maharashtra		182.0	330.21			1.00	0.56	0.07	13.02	
Manipur		0.9	0.17						0.22	
Meghalaya			0.31		1.20	0.47			0.22	
Mizoram					6.90	2.09				
Nagaland			0.18						0.18	
Odisha		2.8	7.69						0.32	
Puducherry										
Punjab		12.2	5.41						2.34	
Rajasthan	97.51	83.0	49.41	692.07				1.97	0.35	53.73
Sikkim										
Tamil Nadu		9.6	2.59	80.97	3.63		2.36		0.47	
Telangana		23.2		27.39	1.03				0.29	
Tripura			17.81		0.17				0.70	
Uttar Pradesh	39.30	7.2	92.13				4.71		1.84	78.15
Uttarakhand					7.67				0.77	
West Bengal								2.14		
Others*		443.5								
Total	715.50	1558.6	1000.60	1087.94	34.32	13.46	20.82	4.18	45.54	413.14

*SECI/REC/PSUs/Govt Deptts