

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 1209
ANSWERED ON 09.02.2023

ELECTRICITY GENERATED FROM SOLAR ENERGY

1209. SHRI VINAYAK RAUT
SHRI ARVIND GANPAT SAWANT
SHRI OMPRAKASH BHUPALSINH ALIAS PAWAN RAJENIMBALKAR

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

- (a) the total megawatts of electricity being generated and likely to be generated from solar energy in the country, State/UT-wise;
- (b) whether the Government has made any assessment of the solar energy potential in the country and if so, the details thereof;
- (c) the quantum of funds allocated, sanctioned and utilised for the development of solar energy sector in the country, State/UT-wise;
- (d) whether the Government is aware of the constraints being faced by the said sector;
- (e) if so, the details thereof and the steps taken/ being taken by the Government to deal with the situation;
- (f) whether the Government proposes to set up more projects to promote solar energy in the country; and
- (g) if so, the details thereof and if not, the reasons therefor, State/UT-wise?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a) A total of 63,302.47 MW solar power capacity has been installed in the country, as on 31.12.2022. The State/UT-wise details are given at **Annexure-I**. The Government has set a target of achieving 500 GW of installed capacity from non-fossil fuels by 2030, in line with the Hon'ble Prime Minister's announcement at CoP-26.

(b) The potential of solar power has been assessed to around 750 GWp in the country by National Institute of Solar Energy (NISE).

(c) State/UT-wise details of funds released under different solar schemes during last three years are given at **Annexure-II**.

(d)&(e) The major challenges in implementing solar power sector, inter-alia, involve the acquisition of clear land, mismatch in timelines between solar projects and power evacuation infrastructure, environmental issues like Great Indian Bustard (GIB) issue in Rajasthan and Gujarat; regulatory challenges in few States like non-approval of solar tariff by SERCs etc.. The details of steps taken to meet the challenges and promote renewable energy including solar energy in the country are given in **Annexure-III**.

(f) &(g) As replied in part (a).

**ANNEXURE-I REFERRED TO IN REPLY TO PART (a) OF LOK SABHA
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STATE-WISE DETAILS OF SOLAR POWER CAPACITY INSTALLED IN THE COUNTRY

AS ON 31.12.2022

Sr. No.	State/UT	Capacity (MW)
1	Andaman & Nicobar	29.91
2	Andhra Pradesh	4524.72
3	Arunachal Pradesh	11.52
4	Assam	147.93
5	Bihar	192.88
6	Chandigarh	58.69
7	Chhattisgarh	944.22
8	Dadra & Nagar Haveli	5.46
9	Daman & Diu	41.01
10	Delhi	211.48
11	Goa	26.40
12	Gujarat	8500.74
13	Haryana	990.67
14	Himachal Pradesh	87.39
15	Jammu & Kashmir	48.90
16	Jharkhand	94.90
17	Karnataka	7885.56
18	Kerala	688.34
19	Ladakh	7.80
20	Lakshadweep	3.27
21	Madhya Pradesh	2774.78
22	Maharashtra	3646.13
23	Manipur	12.28
24	Meghalaya	4.15
25	Mizoram	8.02
26	Nagaland	3.04
27	Odisha	452.71
28	Puducherry	35.53
29	Punjab	1153.21
30	Rajasthan	16340.75
31	Sikkim	4.69
32	Tamil Nadu	6412.36
33	Telangana	4650.93
34	Tripura	16.67
35	Uttar Pradesh	2485.16
36	Uttarakhand	575.46
37	West Bengal	179.82
38	Others including NABARD	45.01
	Total	63302.47

**ANNEXURE-II REFERRED TO IN REPLY TO PART (c) OF LOK SABHA
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**STATE/UT-WISE DETAILS OF FUNDS RELEASED UNDER DIFFERENT SOLAR
SCHEMES DURING LAST THREE YEARS**

(Rs. in Crores)

S.No.	State	2019-20	2020-21	2021-22
1	Andhra Pradesh	194.04	51.49	10.48
2	Arunachal Pradesh	17.01	19.76	10.54
3	Andaman & Nicobar	6.77	0.35	37.97
4	Assam	33.07	0.00	9.19
5	Bihar	1.38	2.93	0.00
6	Chandigarh	5.13	0.85	0.00
7	Chhattisgarh	13.45	0.00	7.10
8	Delhi	0.60	23.29	26.17
9	Goa	0.50	0.00	3.59
10	Gujarat	81.19	101.30	1242.71
11	Haryana	22.44	65.89	175.08
12	Himachal Pradesh	8.09	23.43	33.44
13	Jammu & Kashmir	16.68	4.89	42.26
14	Jharkhand	29.79	31.28	15.16
15	Karnataka	219.51	160.64	141.91
16	Kerala	0.00	18.46	36.34
17	Ladakh	0.00	0.00	12.41
18	Lakshadweep	0.00	0.00	0.00
19	Madhya Pradesh	159.33	93.69	64.95
20	Maharashtra	117.32	114.48	95.16
21	Manipur	16.86	23.06	14.89
22	Meghalaya	3.47	1.13	0.00
23	Mizoram	15.33	19.73	2.35
24	Nagaland	13.55	10.69	5.86
25	Odisha	30.17	4.01	33.47
26	Puduchchery	0.79	0.00	0.00
27	Punjab	25.94	31.85	65.29
28	Rajasthan	213.31	668.67	305.84
29	Sikkim	0.00	0.00	0.03
30	Tamil Nadu	29.29	86.08	60.92
31	Telangana	54.50	54.03	49.11
32	Tripura	12.65	18.49	16.88
33	Uttarakhand	24.86	8.99	28.93
34	Uttar Pradesh	92.83	68.91	46.90
35	West Bengal	15.70	0.00	0.00
36	Others (CEL,REL, NABARD, Regional Rural Banks, NGOs, etc.) and other Channel Partners	115.61	145.91	38.99
	Total	1591.15	1854.28	2633.92

**ANNEXURE-III REFERRED TO IN REPLY TO PART (e) OF LOK SABHA
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**DETAILS OF STEPS TAKEN TO MEET THE CHALLENGES AND PROMOTE
RENEWABLE ENERGY INCLUDING SOLAR ENERGY IN THE COUNTRY**

- Permitting Foreign Direct Investment (FDI) 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,
- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30,
- Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers for installation of RE projects at large scale,
- Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), Solar Rooftop Phase II, 12000 MW CPSU Scheme Phase II, etc,
- Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power,
- Notification of standards for deployment of solar photovoltaic system/devices,
- Setting up of Project Development Cell for attracting and facilitating investments,
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar PV and Wind Projects.
- 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.
- Notification of Promoting Renewable Energy through Green Energy Open Access Rules 2022.
- Notification of "The electricity (Late Payment Surcharge and related matters) Rules (LPS rules).
- Launch of Green Term Ahead Market (GTAM) to facilitate sale of Renewable Energy Power through exchanges.
- National Green Hydrogen Mission approved with an aim to make India a Global Hub for production, utilization and export of Green Hydrogen and its derivatives.