

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 3020
ANSWERED ON 16.12.2021

USE OF SOLAR ENERGY

+3020. SHRIMATI RANJEETA KOLI
SHRI SUMEDHANAND SARASWATI

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

- (a) whether there has been an increase in the use of solar energy in the country;
- (b) if so, the details thereof and if not, the reasons therefor, State-wise;
- (c) the steps taken/being taken by the Government to promote the same during the last three years and the current year;
- (d) the details of schemes being run by the Government to develop solar energy and to use it as a source of energy in rural areas of the country;
- (e) the efforts being made by the Government to expedite the work on schemes to promote solar energy in near future in the country?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a)&(b) Yes, Sir. There has been an increase in solar power capacity installation in the country. The State-wise details of increase during the last three years and the current year are given in **Annexure I**.

(c) The details of important steps to promote solar energy in the country are given in **Annexure-II**

(d) The details of schemes, for development of solar energy and its usage in the country including rural areas, are given in **Annexure-III**.

(e)The Ministry closely monitors its schemes on a regular basis, including through consultations with States and other stakeholders. Also meetings are regularly held with developers and manufacturers to address ease of business issues.

**ANNEXURE-I REFERRED TO IN REPLY TO PARTS (a) AND (b) of LOK SABHA
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Cumulative Capacity increase in last three years and current year

Sr. No.	State/UT	Cumulative Installed Capacity as on 31-03-2018 (MW)	Cumulative Installed Capacity as on 30-11-2021 (MW)	Capacity Increase (MW)
1	Andaman & Nicobar	6.56	29.22	22.66
2	Andhra Pradesh	2195.46	4292.37	2096.91
3	Arunachal Pradesh	5.39	5.61	0.22
4	Assam	12.45	59.15	46.70
5	Bihar	142.45	169.48	27.03
6	Chandigarh	25.20	52.64	27.44
7	Chhattisgarh	231.35	308.83	77.48
8	Dadar & Nagar	5.46	5.46	0.00
9	Daman & Diu	10.61	40.72	30.11
10	Delhi	69.57	209.66	140.09
11	Goa	0.91	18.37	17.46
12	Gujarat	1588.00	6116.85	4528.85
13	Haryana	216.85	593.20	376.35
14	Himachal Pradesh	0.73	45.04	44.31
15	Jammu & Kashmir	1.36	24.49	23.13
16	Jharkhand	25.67	53.56	27.89
17	Karnataka	4944.12	7483.39	2539.27
18	Kerala	107.94	306.30	198.36
19	Ladakh		7.80	7.80
20	Lakshadweep	0.75	0.75	0.00
21	Madhya Pradesh	1305.35	2592.01	1286.67
22	Maharashtra	1239.18	2506.81	1267.63
23	Manipur	0.06	6.36	6.30
24	Meghalaya	0.02	0.19	0.17
25	Mizoram	0.20	1.53	1.33
26	Nagaland	1.00	1.00	0.00
27	Odisha	79.57	405.22	325.65
28	Pondicherry	0.16	11.87	11.72
29	Punjab	905.62	1051.09	145.47
30	Rajasthan	2332.77	9229.80	6897.03
31	Sikkim	0.00	2.76	2.76
32	Tamil Nadu	1908.57	4757.76	2849.19
33	Telangana	3291.25	4032.06	740.81
34	Tripura	5.09	9.41	4.32
35	Uttar Pradesh	694.41	1990.28	1295.87
36	Uttarakhand	260.08	540.49	280.41
37	West Bengal	37.32	151.00	113.68
Total		21651.46	47112.51	25461.05

**ANNEXURE-II REFERRED TO IN REPLY TO PART (c) OF LOK SABHA
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Important steps taken to promote solar energy in the country:

- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2022;
- 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;
- Setting up of solar parks to provide land and transmission to RE developers on a plug and play basis,
- 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 new transmission lines and creating new sub-station capacity for evacuation of renewable power under Green Energy Corridor Scheme.
- 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 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; and
- Launch of Green Term Ahead Market (GTAM) to facilitate Renewable Energy power including Solar power through exchanges.

**ANNEXURE-III REFERRED TO IN REPLY TO PART (d) OF LOK SABHA
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DETAILS OF VARIOUS SCHEMES FOR PROMOTION OF SOLAR ENERGY

a) Rooftop Solar Programme Ph-II	Addition of 4000 MW RTS capacity in Residential Sector through provision of Central Financial Assistance (CFA). In addition, incentives to Discoms for initial 18000 MW RTS capacity addition.	(i) For Residential Sector <ul style="list-style-type: none"> • Central Financial Assistance (CFA) of 40% for capacity up to 3 kWp • CFA of 20% for capacity beyond 3 kWp and up to 10 kWp • CFA of 20% for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp) (ii) For Discoms incentives up to 10% of project cost of new installations in a year depending upon achievements in capacity addition above baseline.
b) Grid connected Solar PV Power Projects by the Government Producers under CPSU scheme.	Total size of the scheme 12, 000 MW.	VGF of upto Rs. 55 lakhs/ MW; actual VGF is decided through bidding.
c) Solar Park Scheme for setting up of 50 Solar Parks and Ultra Mega Solar Power Projects targeting over 40,000 MW of solar power projects.	Total size of the scheme 40, 000 MW.	Upto Rs. 25 lakh per Solar park for preparation of Detailed Project Report (DPRs). Rs. 20 Lakh per MW or 30% of the project cost including Grid-connectivity cost, whichever is lower.
d) Pradhan Mantri-Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)	<p>Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Power Plants</p> <p>Component B: Installation of 20.00 Lakh Stand-alone Solar Pumps</p>	<p>Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar/ other renewable 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 that payable to DISCOMs is Rs. 33 Lakh per MW.</p> <p>CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar Agriculture pump is provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N</p>

	<p>Component C: Solarisation of 15 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation</p>	<p>Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar pump is provided.</p> <p>CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component will be provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh and 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.</p>
e) Green Energy Corridor Scheme	Creation of power evacuation infrastructure for Renewable Energy Projects	CFA of 40 % of DPR cost or awarded cost whichever is lower is provided for creation of intra-state transmission infrastructure for evacuation of RE power.