

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2376
ANSWERED ON 21.03.2023

PROMOTION AND EXPANSION OF NON-CONVENTIONAL SOURCES OF ENERGY

2376. SHRI SATISH CHANDRA DUBEY

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

- (a) the initiatives taken by Government so far to promote and expand non-conventional sources of energy including solar energy;
- (b) the achievements made in power generation from solar energy during the last five years and the current year, State/UT-wise;
- (c) the target set by Government for the generation of power from solar energy in the next ten years;
- (d) whether there is any consideration regarding providing additional subsidy to the solar energy based units so as to popularize the use of solar energy among the masses; and
- (e) if so, the details thereof?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

- (a) Government have taken several steps to promote renewable energy including solar energy in the country. The details of major initiatives taken in this regard, are given at **Annexure-I**.
- (b) State/UT-wise details of solar power generation as reported by Central Electricity Authority (CEA), during the last 5 years and current year are given at **Annexure-II**.
- (c) The Government has set a target of achieving 500 GW of installed capacity from non-fossil fuels, including around 270 GW of solar capacity, by 2030.
- (d) & (e) No such proposal of additional subsidy is under consideration. However, the Government provides financial assistance under different schemes. The details are given at **Annexure-III**.

**ANNEXURE-I REFERRED TO IN REPLY TO PART (a) OF RAJYA SABHA
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**DETAILS OF STEPS TAKEN TO 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 evamUtthaanMahabhiyan (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.

ANNEXURE-II REFERRED TO IN REPLY TO PART (b) OF RAJYA SABHA

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**STATE-WISE DETAILS OF SOLAR POWER GENERATION DURING THE LAST
FIVE YEARS AND CURRENT YEAR**

Name of State/UT	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23 (upto Jan 2023)
Chandigarh	7.87	13.51	13.33	10.16	14.19	9.75
Delhi	13.41	10.83	136.30	189.99	225.84	201.69
Haryana	71.50	72.47	125.14	162.95	572.85	460.67
HP	0.00	0.00	11.66	36.52	44.29	50.69
J & K	0.00	0.00	0.00	9.42	1.71	0.00
Ladkh	0.00	0.00	0.00	0.00	0.00	0.00
Punjab	1432.07	1492.90	1358.22	1356.48	1473.41	2165.74
Rajasthan	3925.33	5109.35	7776.56	10384.24	17219.88	28104.14
Uttar Pradesh	680.71	1235.08	1447.05	1856.19	2900.41	2945.98
Uttarakhand	291.08	318.29	341.51	329.64	301.60	276.50
Northern Region	6421.97	8252.45	11209.77	14335.59	22754.17	34215.17
Chhattisgarh	135.82	335.15	326.42	370.80	436.56	482.98
Gujarat	2048.40	2410.32	3631.86	4633.81	6774.50	8215.84
Madhya Pradesh	2252.07	2982.29	3496.23	4202.03	4006.70	3155.93
Maharashtra	1100.67	2206.62	2372.68	3089.46	3187.18	3441.24
Dadra and Nagar Haveli	23.77	24.69	28.02	41.47	84.51	24.46
Goa	0.00	0.00	0.82	1.46	15.93	11.84
Western Region	5560.73	7959.08	9856.02	12339.03	14505.37	15332.28
Andhra Pradesh	4070.17	4965.96	5855.11	6956.10	7832.51	6601.74
Telangana	4029.43	6312.26	6263.92	6351.04	6536.94	5428.40
Karnataka	2391.74	7575.83	11221.20	13238.86	13169.43	11363.08
Kerala	55.35	110.84	143.59	275.44	496.93	697.67
Tamil Nadu	2906.01	3554.50	4946.63	6115.48	7172.88	7505.74

Name of State/UT	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23 (upto Jan 2023)
Lakshadweep	1.58	1.11	0.66	0.45	0.30	0.09
Puducherry	1.17	2.58	4.14	6.39	12.24	10.20
Southern Region	13455.45	22523.09	28435.25	32943.75	35221.23	31606.92
Andaman Nicobar	13.16	13.86	11.60	24.82	21.51	19.49
Bihar	145.34	179.89	160.16	160.63	163.08	139.53
Jharkhand	19.47	19.15	17.47	17.16	18.21	16.76
Orissa	218.95	263.03	362.29	476.26	603.71	571.62
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00
West Bengal	20.55	40.65	64.29	73.92	98.24	101.50
Eastern Region	417.47	516.57	615.81	752.78	904.75	848.91
Arunachal Pradesh	0.23	1.20	1.60	1.54	1.72	21.93
Assam	8.36	6.67	6.14	13.37	81.64	174.20
Manipur	0.15	1.88	2.63	7.71	6.72	6.93
Meghalaya	0.00	0.00	0.00	0.00	0.47	0.00
Mizoram	0.00	0.12	0.44	2.45	1.68	2.68
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00
Tripura	6.71	7.14	3.43	6.04	6.18	5.49
North Eastern Region	15.45	17.00	14.24	31.11	98.41	211.23
All India * Total	25871.07	39268.19	50131.09	60402.26	73483.94	82214.50

*Note: Source- Central Electricity Authority.

**ANNEXURE-III REFERRED TO IN REPLY TO PART (d) and (e) OF RAJYA SABHA
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**DETAILS OF SCHEMES PRESENTLY OPERATIONAL AND AVAILABLE CENTRAL
FINANCIAL ASSISTANCE**

Scheme	Application	CFA pattern
a) Scheme for development of Solar Parks and Ultra Mega Solar Power Projects	Setting up of at least 50 solar parks of 40,000 MW capacity in the Country	Rs. 20 Lakh per MW or 30% of the project cost, whichever is lower. Also, up to Rs. 25 lakhs per Solar park for preparation of Detailed Project Report (DPR).
b) CPSU Scheme Phase- II (Government Producer Scheme)	Total size of the scheme: 12000 MW	Viability Gap Funding (VGF) of up to Rs. 0.7 Cr./MW (for tranche-I &II) / Rs 0.55 crore/MW (for tranche-III) is provided. Use of domestically manufactured solar PV cells and modules is mandatory.
c) Phase-II of Grid Connected Rooftop Programme	4000 MW in residential sector	<p>The CFA amount for the RTS capacity installed by a consumer is common for entire country which is as under:</p> <p>(i) Individual Household - For first 3 kW: Rs. 14588/kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 7294/kW.</p> <p>(ii) Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 7294/kW for common facilities up to 500 kWp @ 10 kWp per house.</p>

Scheme	Application	CFA pattern
		<p>CFA for residential consumers of North Eastern States including Sikkim, Uttarakhand, Himachal Pradesh, UT of Jammu & Kashmir, Ladakh, Lakshadweep, and Andaman & Nicobar Islands. All residential consumers of these states/UTs applying for installation of rooftop solar on the National Portal for Rooftop Solar on or after date of issuance of this OM will be eligible to get higher CFA as mentioned below.:</p> <p>(i). Individual Household - For first 3 kW: Rs. 17662/kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 8831/kW.</p> <p>(ii). Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 8831/kW for common facilities up to 500 kWp @ 10 kWp per house.</p> <p>Further, incentive is being provided to Discoms based on percentage of year- wise installed capacity achieved against previous year's cumulative installation.</p>
d) Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)	(a) Component-A: 10 GW Installation of Renewable power plants (incl. solar) up to 2 MW capacity on barren/agriculture land.	<p>For Component-A, DISCOM would be eligible to get Procurement Based Incentive (PBI) @ Rs. 0.40 per unit purchased or Rs. 6.6 lakh per MW of capacity installed, whichever is less, for a period of five years from the commercial operation date.</p> <p>For Components-B and C, CFA of 30% of the benchmark cost or the tender cost of standalone pump or solarization of existing pump, whichever is</p>

Scheme	Application	CFA pattern
	<p>(b) Component-B: Installation of 20 lakh standalone solar pumps up to 7.5 HP capacity each for irrigation purpose</p> <p>(c) Component-C: Solarization of 15 lakh existing agricultural pumps up to 7.5 HP capacities each.</p>	<p>lower, will be provided to the beneficiary. However, in North Eastern states including Sikkim; states of Himachal Pradesh and Uttarakhand; UTs of Jammu & Kashmir and Ladakh; and island UTs of Lakshadweep and A&N, CFA of 50% of the benchmark cost or the tender cost, whichever is lower will be provided.</p> <p>The State Government will also provide subsidy of 30% of the cost of standalone pump/ solarization, or higher. State may also opt for feeder level solarization under Component-C.</p>
<p>e) Production Linked Incentive (PLI) Scheme 'National Programme on High Efficiency Solar PV Modules'</p>	<p>To promote manufacturing of high efficiency solar PV modules in the country</p>	<p>The Scheme has provision for PLI (Tranche-I: Rs 4500 crore Tranche-II: Rs 19500 crore) to the selected solar PV module manufacturers for five years post commissioning, on manufacture and sale of High Efficiency Solar PV modules. The quantum of PLI eligible for disbursement depends upon: (i) quantum of sales of solar PV modules; (ii) performance parameters (efficiency and temperature coefficient of maximum power) of solar PV modules sold; and (iii) percentage of local value addition in modules sold.</p>