

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2216
ANSWERED ON 08/08/2023

BENEFITS OF SOLAR ENERGY

2216. DR. KIRODI LAL MEENA

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

- (a) the schemes being run by Government to provide benefits of solar energy to the citizens/farmers of the country;
- (b) the terms and conditions laid down to avail the benefits by the citizens/farmers of the country under the said schemes;
- (c) the quantum of funds spent by Government under the said schemes during the last five years, State/UT-wise; and
- (d) the quantum of electricity currently being generated in the country through solar energy, State/ UT-wise?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

- (a)The Government is implementing various schemes to provide benefits of solar energy to the citizens/farmers of the country. The list of operational schemes is given at **Annexure-I**.
- (b)The Government provides financial assistance under different schemes. The details are given at **Annexure-II**
- (c) The details of fund released as Central Financial Assistance (CFA) by the Government for implementation of various schemes during last five years are given at **Annexure-III**.
- (d) The State/UT-wise details of electricity generated through solar energy in the country during 2022-23 is given at **Annexure-IV**.

**ANNEXURE-I REFERRED TO IN REPLY TO PART (a) OF RAJYA SABHA
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**LIST OF OPERATIONAL SCHEMES TO PROVIDE BENEFITS OF SOLAR
ENERGY IN THE COUNTRY**

1. Solar Park Scheme for setting up of at least 50 Solar Parks targeting 40,000 MW of solar power projects.
2. Scheme for setting up 12,000 MW of Grid-Connected Solar PV Power Projects by the Government producers with Viability Gap Funding (VGF).
3. Installation of Grid-Connected Solar Rooftop Power Plants.
4. Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM).
5. Production-linked incentive scheme under “National Programme on high efficiency Solar PV Modules.”
6. Green Energy Corridor Scheme for Intra-State Transmission System.

ANNEXURE-II REFERRED TO IN REPLY TO PART (b) OF RAJYA SABHA**UNSTARRED QUESTION NO. 2216 FOR 08.08.2023****DETAILS OF SCHEMES PRESENTLY IMPLEMENTED AND AVAILABLE****CENTRAL FINANCIAL ASSISTANCE**

| Scheme/ Programmes | Incentive presently eligible as per the Scheme |
|---|---|
| (a) Solar Park Scheme | <p>Up to Rs. 25 lakh per Solar Park, for preparation of Detailed Project Report (DPR).</p> <p>Beside this, Rs. 20 Lakh per MW or 30% of the project cost, whichever is lower, for development of park infrastructure.</p> |
| (b) Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers | <p>Viability Gap Funding (VGF) support up to Rs 55 lakhs per MW to the CPSUs/Govt. Organizations entities selected through competitive bidding process.</p> |
| (c) Grid Connected Rooftop Solar PV Power Projects | <p>(i) For Residential Sector</p> <ul style="list-style-type: none">• Central Financial Assistance (CFA) up to 40% for capacity up to 3 kWp• CFA up to 20% for capacity beyond 3 kWp and up to 10 kWp• CFA up to 20% for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp) <p>(ii) For Discoms</p> <p>Incentives up to 10% of project cost depending upon achievements in capacity addition above baseline.</p> <p>Vide its OM dated 27.01.2023, Ministry has fixed the CFA for the entire country. The revised CFA rates would be applicable on all future bids and the bids which are scheduled to be closed after 15 days of issuance of this OM.</p> <p>The revised rates are as follows:</p> <p>For general category States/UTs:</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/ Programmes | Incentive presently eligible as per the Scheme |
|--|---|
| | <p>For special category States/UTs:</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> |
| (d)PM-KUSUM scheme | <p>Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants</p> <p>Benefit available: Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar 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 upto Rs. 33 Lakh per MW.</p> <p>Component B: Installation of 20.00 Lakh Stand-alone Solar Pumps</p> <p>Benefit available: 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 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>Component C: Solarisation of 15 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation</p> <p>Benefit available:</p> <p>(a) Individual Pump Solarization: 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> <p>(b) Feeder Level Solarization: Agriculture feeders can be solarized by the State Government in CAPEX or RESCO mode with CFA of Rs. 1.05 Crore per MW available from MNRE.</p> |
| (e) PLI Scheme 'National Programme on High | <p>The beneficiaries are eligible for Production Linked Incentive (PLI) on production and sale of solar PV modules. The quantum of PLI eligible for disbursal</p> |

| Scheme/ Programmes | Incentive presently eligible as per the Scheme |
|---|---|
| Efficiency Solar PV Modules' | 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. |
| (f) Green Energy Corridor Scheme for development of intra-state transmission system for RE projects) | GEC Phase-I: CFA of 40 % of DPR cost or awarded cost whichever is lower. GEC Phase-II: CFA of 33 % of DPR cost or awarded cost whichever is lower. |

**ANNEXURE III REFERRED TO IN REPLY TO PART (C) OF RAJYA SABHA
UNSTARRED QUESTION NO.2216 FOR 08.08.2023**

**THE DETAILS OF FUND RELEASED AS CENTRAL FINANCIAL ASSISTANCE
(CFA) BY THE GOVERNMENT DURING LAST FIVE YEARS**

(Rs in crores)

| Sl. No. | State | FY | | | | |
|---------|-------------------|---------|---------|---------|---------|---------|
| | | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
| 1 | Andhra Pradesh | 276.17 | 194.04 | 51.49 | 10.48 | 68.96 |
| 2 | Arunachal Pradesh | 0.00 | 17.01 | 19.76 | 10.54 | 9.30 |
| 3 | Andaman & Nicobar | 0.00 | 6.77 | 0.35 | 37.97 | 0.00 |
| 4 | Assam | 0.00 | 33.07 | 0.00 | 9.19 | 14.02 |
| 5 | Bihar | 5.48 | 1.38 | 2.93 | 0.00 | 0.00 |
| 6 | Chandigarh | 18.76 | 5.13 | 0.85 | 0.00 | 0.73 |
| 7 | Chhattisgarh | 127.70 | 13.45 | 0.00 | 7.10 | 13.54 |
| 8 | Delhi | 0.00 | 0.60 | 23.29 | 26.17 | 10.07 |
| 9 | Goa | 0.00 | 0.50 | 0.00 | 3.59 | 0.00 |
| 10 | Gujarat | 417.99 | 81.19 | 101.30 | 1242.71 | 1114.65 |
| 11 | Haryana | 27.50 | 22.44 | 65.89 | 175.08 | 118.18 |
| 12 | Himachal Pradesh | 28.05 | 8.09 | 23.43 | 33.44 | 15.73 |
| 13 | Jammu & Kashmir | 10.53 | 16.68 | 4.89 | 42.26 | 27.98 |
| 14 | Jharkhand | 33.44 | 29.79 | 31.28 | 15.16 | 40.64 |
| 15 | Karnataka | 69.52 | 219.51 | 160.64 | 141.91 | 90.98 |
| 16 | Kerala | 5.50 | 0.00 | 18.46 | 36.34 | 89.71 |
| 17 | Ladakh | 0.00 | 0.00 | 0.00 | 12.41 | 125.00 |
| 18 | Lakshadweep | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19 | Madhya Pradesh | 132.90 | 159.33 | 93.69 | 64.95 | 170.14 |
| 20 | Maharashtra | 182.63 | 117.32 | 114.48 | 95.16 | 304.58 |
| 21 | Manipur | 0.00 | 16.86 | 23.06 | 14.89 | 0.00 |
| 22 | Meghalaya | 1.57 | 3.47 | 1.13 | 0.00 | 0.00 |
| 23 | Mizoram | 0.00 | 15.33 | 19.73 | 2.35 | 1.29 |
| 24 | Nagaland | 2.06 | 13.55 | 10.69 | 5.86 | 6.37 |
| 25 | Odisha | 35.64 | 30.17 | 4.01 | 33.47 | 26.70 |
| 26 | Puduchchery | 0.10 | 0.79 | 0.00 | 0.00 | 0.00 |
| 27 | Punjab | 39.54 | 25.94 | 31.85 | 65.60 | 55.93 |

| Sl. No. | State | FY | | | | |
|--------------|--|----------------|----------------|----------------|----------------|----------------|
| | | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
| 28 | Rajasthan | 237.01 | 213.31 | 668.67 | 305.84 | 258.84 |
| 29 | Sikkim | 2.74 | 0.00 | 0.00 | 0.03 | 0.00 |
| 30 | Tamil Nadu | 42.33 | 29.29 | 86.08 | 60.92 | 10.98 |
| 31 | Telangana | 53.15 | 54.50 | 54.03 | 49.11 | 42.81 |
| 32 | Tripura | 0.00 | 12.65 | 18.49 | 16.88 | 0.12 |
| 33 | Uttarakhand | 30.93 | 24.86 | 8.99 | 28.93 | 8.33 |
| 34 | Uttar Pradesh | 95.78 | 92.83 | 68.91 | 41.90 | 74.32 |
| 35 | West Bengal | 11.28 | 15.70 | 0.00 | 0.00 | 4.71 |
| 36 | Others (CEL, REL, NABARD, Regional Rural Banks, NGOs, etc.) and other Channel Partners | 281.07 | 115.61 | 145.91 | 38.99 | 17.71 |
| Total | | 2169.37 | 1591.15 | 1854.28 | 2629.23 | 2722.32 |

**ANNEXURE IV REFERRED TO IN REPLY TO PART (d) OF RAJYA SABHA
UNSTARRED QUESTION NO. 2216 FOR 08.08.2023**

**STATE/UT-WISE DETAILS OF SOLAR ELECTRICITY GENERATION IN THE
COUNTRY**

(in Million Unit)

| Name of State/UT | Solar Electricity Generation in 2022-23 |
|-------------------------|--|
| Chandigarh | 12.61 |
| Delhi | 236.11 |
| Haryana | 555.20 |
| HP | 58.76 |
| J & K | 0.00 |
| Ladakh | 0.00 |
| Punjab | 2778.66 |
| Rajasthan | 34474.43 |
| Uttar Pradesh | 3674.02 |
| Uttarakhand | 331.80 |
| Northern Region | 42121.59 |
| Chhattisgarh | 635.42 |
| Gujarat | 10335.32 |
| Madhya Pradesh | 3839.30 |
| Maharashtra | 4387.85 |
| Dadra and Nagar Haveli | 27.40 |
| Goa | 14.87 |
| Western Region | 19240.16 |
| Andhra Pradesh | 8140.72 |
| Telangana | 6745.46 |
| Karnataka | 14153.79 |
| Kerala | 879.75 |
| Tamil Nadu | 9419.39 |
| Lakshadweep | 0.10 |
| Puducherry | 12.24 |
| Southern Region | 39351.45 |
| Andaman Nicobar | 23.94 |
| Bihar | 169.53 |
| Jharkhand | 19.70 |
| Orissa | 706.24 |

| Name of State/UT | Solar Electricity Generation in 2022-23 |
|-----------------------------|--|
| Sikkim | 0.00 |
| West Bengal | 125.04 |
| Eastern Region | 1044.45 |
| Arunachal Pradesh | 22.27 |
| Assam | 216.35 |
| Manipur | 8.17 |
| Meghalaya | 0.00 |
| Mizoram | 3.21 |
| Nagaland | 0.00 |
| Tripura | 6.58 |
| North Eastern Region | 256.58 |
| All India Total | 102014.24 |