

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 302
ANSWERED ON 05/12/2023

SOLAR ENERGY IN NORTHEASTERN STATES

302. SHRI PABITRA MARGHERITA

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

- (a) the details of the programmes of harnessing renewable energy such as solar energy in Northeastern States, especially in Assam;
- (b) the total budget expenditure (yearly) for production of solar energy from 2018 onwards; and
- (c) the total production of solar energy in Assam from 2018 onwards?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a) The details of Schemes and Programmes presently under implementation by Ministry of New and Renewable Energy (MNRE) for harnessing renewable energy such as solar energy, including in Northeastern States, are given at **Annexure**.

(b) The yearly budget expenditure by MNRE from Financial Year 2017-18 onwards for implementation of schemes/programmes related to production of solar energy are given below:

Financial Year	Expenditure in Rs. Cr
2017- 2018	1889.98
2018- 2019	2524.65
2019- 2020	1995.59
2020- 2021	1199.22
2021-2022	2608.51
2022- 2023	3756.86
2023-2024(as on 31.10.2023)	2917.85

(c) Cumulative solar production capacity installed in the State of Assam from Financial Year 2017-18 onwards is given below:

At the end of Financial Year	Solar capacity in MW
2017- 2018	19.28
2018- 2019	30.47
2019- 2020	49.75
2020- 2021	51.56
2021-2022	117.94
2022- 2023	147.93
2023-2024 (as on 31.10.2023)	155.81

**Annexure referred to in reply of part (a) of the Rajya Sabha unstarred question No. 302
to be answered on 05.12.2023**

**Details of major schemes and programme presently under implementation by MNRE
for harnessing renewable energy, including in Northeastern States**

Schemes/ Programmes	Financial support available for NE States												
a) Rooftop Solar Programme Phase-II	<p>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.</p> <p>(a)CFA for Residential Sector:</p> <p>(i)For projects directly implemented by DISCOMs through tender mode:</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 projects being implemented under national portal (solarrooftop.gov.in)</p> <table border="1" data-bbox="475 943 1441 1182"> <thead> <tr> <th>Plant Capacity</th> <th>Applicable Subsidy for general category States</th> <th>Applicable Subsidy for special category States</th> </tr> </thead> <tbody> <tr> <td>Up to 3 kW</td> <td>Rs. 14588/- per kW</td> <td>Rs. 17662/- per kW</td> </tr> <tr> <td>Above 3 kW and up to 10 kW</td> <td>Rs. 14588/- per kW for first 3 kW and thereafter Rs. 7294/- per kW</td> <td>Rs. 17662/- per kW for first 3 kW and thereafter Rs. 8831/- per kW</td> </tr> <tr> <td>Above 10 kW</td> <td>Rs. 94822/- fixed</td> <td>Rs. 114803/- fixed</td> </tr> </tbody> </table> <p>Special category States includes North Eastern States including Sikkim, Uttarakhand, Himachal Pradesh, UTs of Jammu & Kashmir, Ladakh, Lakshadweep, and Andaman & Nicobar Islands</p> <p>(b) Incentives to DISCOMs: For DISCOMS Incentives up to 10% of project cost depending upon achievements in capacity addition above baseline.</p>	Plant Capacity	Applicable Subsidy for general category States	Applicable Subsidy for special category States	Up to 3 kW	Rs. 14588/- per kW	Rs. 17662/- per kW	Above 3 kW and up to 10 kW	Rs. 14588/- per kW for first 3 kW and thereafter Rs. 7294/- per kW	Rs. 17662/- per kW for first 3 kW and thereafter Rs. 8831/- per kW	Above 10 kW	Rs. 94822/- fixed	Rs. 114803/- fixed
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b) PM-KUSUM scheme	<p>The Scheme is demand driven and open for all farmers of the country for implementation as per guidelines issued for the Scheme.</p> <p>Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants on barren/fallow/pasture/marshy land of farmers. Such plants can be installed by individual farmer, Solar Power Developer, Cooperatives, Panchayats and Farmers Producer Organisations. 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 Lakh Stand-alone Solar Pumps in off-grid areas. CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar pump is provided for projects in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands. For other States/Union Territories, CFA of</p>												

	<p>30% 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 through (i) Individual Pump Solarisation and (ii) Feeder Level Solarisation. Benefit available: (a) Individual Pump Solarization: CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component is provided for projects in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands. For other States/Union Territories, CFA of 30% 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 50 % for projects in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands (i.e. CFA upto Rs. 1.75 Crore per MW calculated at project cost of Rs. 3.5 Crore per MW) . In other States/Union Territories CFA of 30 % is available for such projects (i.e. CFA upto Rs. 1.05 Crore per MW calculated at project cost of Rs. 3.5 Crore per MW).</p>
c) Solar Park Scheme	<p>Up to 25 lakhs per Solar Park, for preparation of Detailed Project Report (DPR).</p> <p>Up to 20 Lakh per MW or 30% of the project cost, whichever is lower, for development of infrastructure.</p>
d) Bioenergy Programmes	
(i) Biomass Programme	<p>For Briquette/Pellet manufacturing plants: Rs. 9.00 Lakhs/ MTPH (Maximum CFA- Rs. 45.00 Lakh per project)</p> <p>For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/ Megawatt (Maximum CFA- Rs. 5.00 Crore per project)</p>
(ii) Waste to Energy Programme	<p>(a) for Biogas generation: Rs 0.25 crore per 12000 cum/day (Maximum CFA- Rs.5.00 crore/project)</p> <p>(b) for BioCNG/Enriched Biogas/Compressed Biogas generation: (Maximum CFA- Rs.10 crore/project)</p> <p>(i) BioCNG generation from new Biogas plant- Rs 4.0 Crore per 4800 Kg/day;</p> <p>(ii) BioCNG generation from existing Biogas plant- Rs 3.0 Crore per 4800 Kg/day;</p> <p>(c) for Power generation based on Biogas (Maximum CFA- Rs. 5.00 crore/project):-</p> <p>(i) Power generation from new biogas plant: Rs 0.75 Crore per MW</p> <p>(ii) Power generation from existing biogas plant: Rs 0.5 crore / MW</p> <p>(d) for Power generation based on bio & agro-industrial waste (other than MSW through incineration process):- Rs. 0.40 crore/MW (Maximum CFA - Rs.5.00 Crore/Project)</p> <p>(e) for Biomass Gasifier for electricity/ thermal applications:</p> <p>i) Rs. 2,500 per kW_e with dual fuel engines for electrical application</p> <p>ii) Rs. 15,000 per kW_e with 100% gas engines for electrical application</p> <p>iii) Rs. 2 lakh per 300 kW_{th} for thermal applications.</p> <p>Note:</p>

	<ul style="list-style-type: none"> • In case, the Waste to Energy plants are set up in NE Region, Sikkim, Himachal Pradesh , Uttarakhand, Jammu & Kashmir, Ladakh, Lakshadweep and Andaman & Nicobar Islands), the eligible CFA would be 20% higher than Standard CFA pattern given above. • Biogas/BioCNG/Power (biogas based) generation plants based on cattle dung as main feedstock set up by Gaushalas independently or through joint ventures/partnerships will be eligible for 20% higher CFA than Standard CFA pattern given above. These Gaushalas (Shelters) should be registered with the respective State Government.
(iii) Biogas Programme	<p>a) Rs. 9800/- to Rs. 70,400/- per plant based on size of the plant in cubic meter for small biogas plants (1-25 cubic meter/day plant capacity);</p> <p>b) Rs. 35,000/- to Rs. 45,000/- per kilowatt for power generation and Rs. 17,500 /- to Rs. 22,500/- per kilowatt equivalent for thermal applications (25 - 2500 cubic meter/day plant capacity). However, the eligible CFA would be 20% higher than Standard CFA for projects in NE Region, Sikkim, Himachal Pradesh, Uttarakhand, Jammu & Kashmir, Ladakh, Lakshadweep and Andaman & Nicobar Islands and Scheduled Castes (SC)/ Scheduled Tribe (ST).</p>