

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2852
ANSWERED ON 25.03.2025

RENEWABLE ENERGY SOURCES IN RURAL AREAS

2852. SMT. RAJANI ASHOKRAO PATIL

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

- (a) how the Ministry is promoting the use of renewable energy sources in rural areas to improve electricity accessibility in remote areas;
- (b) the details of Government's initiatives to support the development and deployment of affordable and sustainable energy solutions for rural households; and
- (c) the manner in which the Ministry is ensuring that renewable energy technologies are accessible and affordable for marginalized communities?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) to (c) The Ministry of New and Renewable Energy is implementing various schemes and programmes including for promoting the use of renewable energy sources in rural areas to improve electricity accessibility in remote areas. These schemes and programmes have provision to support the development and deployment of affordable and sustainable energy solutions including for rural households. Further, to ensure that renewable energy technologies are accessible and affordable for the marginalized communities such as small and marginal farmers, tribals, those living in hilly and difficult areas, etc., these schemes and programmes have specific provisions in terms of prioritisation, providing higher subsidies, creating awareness and outreach, capacity building, etc. Details of major schemes and programmes under implementation of MNRE in this regard is given at **Annexure**.

Annexure referred to in reply of part (a) to (c) of Lok Sabha Unstarred Question No. 2852 to be answered on 25/03/2025 regarding “Renewable energy sources in rural areas”

Major renewable energy schemes/ programmes being implemented by MNRE along with provision of central financial support

Scheme/Programmes	Support available as per the Scheme Guidelines																				
a) PM Surya Ghar: Muft Bijli Yojana	<p>The scheme target to install rooftop solar for one crore households in the residential sector. The CFA for installation of rooftop solar in the residential sector under the scheme is given below:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Type of Residential Segment</th> <th>CFA</th> <th>CFA (Special Category States/UTs)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Residential Sector (first 2 kWp of Rooftop Solar (RTS) capacity or part thereof)</td> <td>Rs.30,000/kWp</td> <td>Rs.33,000/kWp</td> </tr> <tr> <td>2</td> <td>Residential Sector (with additional RTS capacity of 1 kWp or part thereof)</td> <td>Rs.18,000/kWp</td> <td>Rs.19,800/kWp</td> </tr> <tr> <td>3</td> <td>Residential Sector (additional RTS capacity beyond 3 kWp)</td> <td>No additional CFA</td> <td>No additional CFA</td> </tr> <tr> <td>4</td> <td>Group Housing Societies/ Residential Welfare Associations (GHS/RWA) etc. for common facilities including EV charging up to 500 kWp (@ 3 kWp per house)</td> <td>Rs.18,000/kWp</td> <td>Rs.19,800/kWp</td> </tr> </tbody> </table>	S. No.	Type of Residential Segment	CFA	CFA (Special Category States/UTs)	1	Residential Sector (first 2 kWp of Rooftop Solar (RTS) capacity or part thereof)	Rs.30,000/kWp	Rs.33,000/kWp	2	Residential Sector (with additional RTS capacity of 1 kWp or part thereof)	Rs.18,000/kWp	Rs.19,800/kWp	3	Residential Sector (additional RTS capacity beyond 3 kWp)	No additional CFA	No additional CFA	4	Group Housing Societies/ Residential Welfare Associations (GHS/RWA) etc. for common facilities including EV charging up to 500 kWp (@ 3 kWp per house)	Rs.18,000/kWp	Rs.19,800/kWp
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b) PM-KUSUM scheme	<p>The scheme has three components:</p> <p>Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar or other renewable energy-based Power Plants Benefits available: Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying renewable energy 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 payable to DISCOMs is up to Rs. 33 Lakh per MW.</p> <p>Component B: Installation of 14 Lakh Stand-alone Solar Agriculture Pumps Benefits 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, 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>																				

Scheme/Programmes	Support available as per the Scheme Guidelines
	<p>Component B can also be implemented without State share of 30%. The Central Financial Assistance will continue to remain 30% and rest 70% will be borne by the farmer.</p> <p>Component C: Solarisation of 35 Lakh Grid Connected Agriculture Pumps including through Feeder Level Solarisation</p> <p>Benefits available:</p> <p>(a) Individual Pump Solarization (IPS): CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component is provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh, 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. Component C (IPS) can also be implemented without State share of 30%. The Central Financial Assistance will continue to remain 30% and rest 70% will be borne by the farmer.</p> <p>(b) Feeder Level Solarization (FLS): Agriculture feeders can be solarized by the State Government in CAPEX or RESCO mode with CFA of Rs. 1.05 Crore per MW as provided by MNRE. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Lakshadweep and Andaman & Nicobar Island, CFA of Rs. 1.75 crore per MW is provided.</p>
c) Biomass Programme	<p>(a) For Briquette manufacturing plants: Rs. 9 Lakhs/MTPH (metric ton/hour) [Maximum CFA- Rs. 45 Lakh per project]</p> <p>(b) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/MW (on installed capacity) (Maximum CFA- Rs. 5 Crore per project)</p> <p>(c) For pellet plants whose applications have been received before 16.07.2024: Rs. 9 Lakhs/MTPH (metric ton/hour) [Maximum CFA- Rs. 45 Lakh per project]</p> <p>(d) For pellet plants whose applications have been received on or after 16.07.2024:</p> <p>i. For Non-Torrefied Pellet manufacturing plant: Rs. 21 lakhs/MTPH production capacity or 30% of the capital cost considered for plant and machinery of 1 MTPH plant, whichever is lower (Maximum Rs. 105 lakhs per project)</p> <p>ii. For Torrefied Pellet manufacturing plant: Rs. 42 lakhs/MTPH production capacity or 30% of the capital cost considered for plant and machinery of 1 MTPH plant, whichever is lower (Maximum Rs. 210 lakhs per project)</p>
d) Waste to Energy Programme	<p>(a) For Biogas generation: Rs. 0.25 crore per 12000 cum/day (Maximum CFA- Rs.5 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 Crore per 4800 Kg/day;</p>

Scheme/Programmes	Support available as per the Scheme Guidelines
	<p>(ii) BioCNG generation from existing Biogas plant - Rs 3 Crore per 4800 Kg/day;</p> <p>(c) For Power generation based on Biogas (Maximum CFA - Rs. 5 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 per MW</p> <p>(d) For Power generation based on bio & agro-industrial waste (other than Municipal Solid Waste (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 Special Category States (NE Region, Sikkim, Himachal Pradesh and 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.
e) 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)</p> <p>The eligible CFA would be 20% higher than Standard CFA in for North Eastern Region (NER), Island, Registered Gaushalas and SC/ST beneficiaries.</p>
f) New Solar Power Scheme (for Tribal and PVTG Habitations/ Villages) under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and	<ul style="list-style-type: none"> • The Scheme to cover electrification of One Lakh un-electrified households (HHs) in Tribal and PVTG areas identified by Ministry of Tribal Affairs (MoTA) by provision of off-grid solar systems. • The scheme includes a provision for providing off-grid solar lighting in 1500 Multi-Purpose Centres (MPCs) in PVTG areas as approved under PM JANMAN.

Scheme/Programmes	Support available as per the Scheme Guidelines				
Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DA JGUA):	<ul style="list-style-type: none"> Similarly, the scheme also includes provision for solarisation of 2000 public institutions through off-grid solar systems as approved under DA JGUA. The off-grid solar systems shall be provided only where electricity supply through grid is not techno-economically feasible. The financial outlay approved for the scheme under PM JANMAN and DA JGUA is given below: 				
	S. No.	Components	Central Share (100%)	Approved Financial Outlay (in Rs. Crore)	Timeline
	1	Provision of 0.3 kW Solar offgrid system for 1 lakh Tribal and PVTG HHs	Rs. 50,000 per HH or as per actual cost	500	FY 2023-24 to FY 2025-26
	2	Solar street lighting and provision of lighting in 1500 MPCs of PVTG areas	Rs. 1 lakh per MPC	15	
	3	Solarisation of 2000 public institutions through off-grid solar systems	Rs 1 lakh per kW	400	FY 2024-25 to FY 2028-29