

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
STARRED QUESTION NO. 270
ANSWERED ON 19/03/2025

**QUALITY STANDARDS AND AFFORDABILITY OF RENEWABLE ENERGY
TECHNOLOGIES**

*270. DR. AMAR SINGH
SMT. BIJULI KALITA MEDHI

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

- (a) whether the Government concurs with the view that through encouraging domestic value addition and ensuring adherence to quality standards in renewable energy technologies the gap between sustainability and affordability can be bridged;
- (b) if so, the details of the steps that are proposed to be taken by the Government in this regard and if not, the reasons therefor; and
- (c) the manner in which new and renewable energy technologies are made more affordable and accessible for rural communities?

ANSWER

**THE MINISTER OF NEW & RENEWABLE ENERGY AND CONSUMER AFFAIRS,
& FOOD AND PUBLIC DISTRIBUTION**

(SHRI PRALHAD JOSHI)

(a) to (c) A Statement is laid on the Table of the House.

**Statement referred to in reply to parts (a) to (c) of Lok Sabha Starred Question No. 270
to be answered on 19.03.2025 regarding Quality Standards and Affordability of
Renewable Energy Technologies**

(a) Yes.

(b) The Ministry of New and Renewable Energy (MNRE) through various policies, schemes and quality control orders, encourages domestic value addition, provides Central Financial Assistance (CFA) and ensures adherence to quality standards in renewable energy sector. This also helps to bridge the gap between sustainability and affordability. In this regards the major steps taken by MNRE are given in **Annexure I**.

(c) MNRE, through its various ongoing schemes, is providing Central Financial Assistance (CFA) for making renewable energy more affordable and accessible in the country including in rural communities. The details of CFA are given in **Annexure II**.

**ANNEXURE I: REFERRED IN REPLY TO PART (a) & (b) OF LOK SABHA
STARRED QUESTION NO.270 FOR 19.03.2025**

Steps taken by MNRE through various policies, schemes and quality control orders,

- Implementing the Production Linked Incentive (PLI) Scheme for High Efficiency Solar PV Modules wherein, PLI amount is linked to the local content in the solar PV modules manufactured by the solar PV manufacturers. This ensures sustainability and affordability in the long term.
- Implementing the PM Surya Ghar: Muft Bijli Yojana, Components B and C of PM-KUSUM and CPSU Scheme Phase-II wherein, Solar PV modules used in the installation must satisfy the Domestic Content Requirement condition i.e., domestically manufactured modules manufactured from domestically manufactured cells.
- Notified Quality Control Orders (QCOs) for Solar Photovoltaic products (i.e. Solar PV module, inverters and storage batteries) and solar water heaters.
- Guidelines to enlist type and quality certified wind turbines under 'Revised List of Models & Manufacturers' (RLMM) which also mandates that Hub and Nacelle assembly / manufacturing facility shall be in India.
- Department for Promotion of Industry and Internal Trade has notified QCO for Solar DC Cable.
- The Government of India has imposed Basic Customs Duty on import of solar cells, solar modules, and solar glass.
- To ensure usage of high quality, reliable solar PV cells and modules, used in solar PV power plants, MNRE has issued Approved Models and Manufacturers of Solar Photovoltaic Models (Requirement for Compulsory Registration) Order, 2019, wherein eligible models and manufacturers are enlisted under Approved List of Model and Manufacturers (ALMM).

**ANNEXURE II: REFFERED IN REPLY TO PART (c) OF LOK SABHA STARRED
QUESTION NO.270 FOR 19.03.2025**

**Details of Central Financial Assistance (CFA) given for Renewable Energy
Schemes/Programmes**

Scheme/Programme	Central Financial Assistance (CFA)			
(a) PM Surya Ghar: Muft Bijli Yojana	Central Financial Assistance (CFA) for installation of Rooftop Solar in the Residential Sector is given below:			
	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
In addition, support is also available as incentives to DISCOMs/Local Bodies, development of Model Solar Village, innovative projects, payment security mechanism, capacity building, awareness and outreach, etc.				

Scheme/Programme	Central Financial Assistance (CFA)
(b) PM-KUSUM scheme	<p>Component A: Procurement Based Incentive to the DISCOMs for 5 years @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar power from Decentralized Ground/Stilt Mounted Solar Power Plants on barren/fallow/pasture/marshy land of farmers. The total PBI payable to DISCOMs is up to Rs. 33 Lakh per MW.</p> <p>Component B: 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. 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:</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 will be 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) PLI Scheme 'National Programme on High Efficiency Solar PV Modules'	<p>The beneficiaries are eligible for Production Linked Incentive (PLI) on production and sale of solar PV modules. The quantum of PLI eligible for disbursement depends upon:</p> <p>(i) quantum of sales of solar PV modules;</p>

Scheme/Programme	Central Financial Assistance (CFA)																							
	(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.																							
(d) New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DA JGUA):	<ul style="list-style-type: none"> The Scheme will 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. Similarly, the scheme also includes provision for solarization 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: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Components</th> <th>Central Share (100%)</th> <th>Approved Financial Outlay (in Rs. Crore)</th> <th>Timeline</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Provision of 0.3 kW Solar offgrid system for 1 lakh Tribal and PVTG HHs</td> <td>Rs. 50,000 per HH or as per actual cost</td> <td>500</td> <td rowspan="2">FY 2023-24 to FY 2025-26</td> </tr> <tr> <td>2</td> <td>Solar street lighting and provision of lighting in 1500 MPCs of PVTG areas</td> <td>Rs. 1 lakh per MPC</td> <td>15</td> </tr> <tr> <td>3</td> <td>Solarisation of 2000 public institutions through off-grid solar systems</td> <td>Rs 1 lakh per kW</td> <td>400</td> <td>FY 2024-25 to FY 2028-29</td> </tr> </tbody> </table>					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
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(e) Biomass Programme	(a) For Briquette manufacturing plants: Rs. 9 Lakhs/MTPH (metric ton/hour) [Maximum CFA- Rs. 45 Lakh per project]																							

Scheme/Programme	Central Financial Assistance (CFA)
	<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>
(f) 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>
(g) 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> <p>(ii) BioCNG generation from existing Biogas plant - Rs 3 Crore per 4800 Kg/day;</p>

Scheme/Programme	Central Financial Assistance (CFA)
	<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.