

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 3501**  
ANSWERED ON 10.08.2023

**DOMESTIC MANUFACTURING CAPACITY IN RENEWABLE ENERGY SECTOR**

3501. SHRI PATEL HASMUKHBHAI SOMABHAI  
SHRI RATANSINH MAGANSINH RATHOD

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

- (a) the steps taken by the Government to enhance domestic manufacturing capacity in renewable energy sector;
- (b) whether subsidy is being given by the Government to promote energy sector; and
- (c) if so, the details thereof?

**ANSWER**

**THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER**  
**(SHRI R.K. SINGH)**

(a) Ministry of New & Renewable Energy (MNRE), Government of India, consistently brings out policies to enhance domestic manufacturing capacity in renewable energy sector. Various initiatives taken, inter-alia, include those mentioned at **Annexure-I**.

(b)&(c) MNRE is implementing various schemes and programmes which have provisions of subsidy to promote Renewable Energy deployment, which inter-alia include:

- i. Grid Connected Rooftop Solar PV Power Projects
- ii. Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers
- iii. PLI Scheme 'National Programme on High Efficiency Solar PV Modules'
- iv. Solar Park Scheme
- v. PM-KUSUM scheme
- vi. Green Energy Corridor Scheme
- vii. Biomass Programme
- viii. Waste to Energy Programme
- ix. Biogas Programme
- x. R&D programme
- xi. National Green Hydrogen Mission

The details of incentives being provided as Central Financial Assistance (CFA) by MNRE under these schemes/ programmes are given in **Annexure-II**.

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**Annexure referred to in reply of part (a) of the Lok Sabha Unstarred Question No. 3501 for 10.08.2023 regarding 'Domestic Manufacturing Capacity in Renewable Energy Sector'**

Various initiatives taken to enhance domestic manufacturing capacity in renewable energy sector, inter-alia, include:

**(i) Production Linked Incentive Scheme:** The Government of India is implementing the Production Linked Incentive (PLI) Scheme under National Programme on High Efficiency Solar PV Modules, for achieving domestic manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules, with an outlay of Rs. 24,000 crore. The Scheme is being implemented in two tranches. Tranche-I has an outlay of Rs. 4,500 crore, under which Letters of Award have been issued for setting up of 8,737 MW of fully integrated solar PV module manufacturing units. For Tranche-II with an outlay of Rs. 19,500 crore, Letters of Award have been issued for setting up of 39,600 MW of fully/ partially integrated solar PV module manufacturing units.

**(ii) Domestic Content Requirement (DCR):** Under some of the current schemes of the MNRE, namely CPSU Scheme Phase-II, PM-KUSUM Component B and Grid-connected Rooftop Solar Programme Phase-II, wherein government subsidy is given, it has been mandated to source solar PV cells and modules from domestic sources.

**(iii) Preference to 'Make in India' in Public Procurement:** Through implementation of 'Public Procurement (Preference to Make in India) Order', procurement and use of domestically manufactured solar PV modules and solar inverters have been mandated for Government/ Government entities.

**(iv) Imposition of Basic Customs Duty on import of solar PV cells & modules:** The Government has imposed Basic Customs Duty (BCD) on import of solar PV cells and modules, with effect from 01.04.2022.

**(v) Discontinuation of Customs Duty Concessions:** MNRE has discontinued issuance of Customs Duty Concession Certificates for import of material /equipment for initial setting up of solar PV power projects with effect from 02.02.2021.

**(vi) Domestic Manufacturing in Wind Sector:** MNRE has also put in place a procedure to enlist type and quality certified wind turbines under 'Revised List of Models & Manufacturers' (RLMM). It also mandates that Hub and Nacelle assembly / manufacturing facility shall be in India. As on 30.06.2023, 33 different models of wind turbines are being manufactured in India by 14 different companies. Around 70-80% indigenization has been achieved with strong domestic manufacturing in the wind sector. The current annual production capacity of wind turbines in the country is around 15,000 MW.

**(vii) Renewable Energy Research and Technology Development Programme (RE-RTD):** MNRE supports a scheme "Renewable Energy Research and Technology Development Programme (RE-RTD)" through various research institutions and industry to enable indigenous technology development and manufacture for wide spread applications of new and renewable energy in efficient and cost effective manner across the country with the ultimate aim of increasing share of renewables in the energy mix in the country.

**Annexure referred to in reply of parts (b) & (c) of the Lok Sabha Unstarred Question No. 3501 for 10.08.2023 regarding 'Domestic Manufacturing Capacity in Renewable Energy Sector'**

**Subsidies being provided as Central Financial Assistance (CFA) for the implementation of major renewable energy schemes/ programmes.**

Scheme/ Programmes	Incentive presently eligible as per the Scheme
a) Grid Connected Rooftop Solar PV Power Projects	<p>(i) For Residential Sector</p> <ul style="list-style-type: none"> <li>• Central Financial Assistance (CFA) up to 40% for capacity up to 3 kWp</li> <li>• CFA up to 20% for capacity beyond 3 kWp and up to 10 kWp</li> <li>• CFA up to 20% for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp)</li> </ul> <p>(ii) For DISCOMs 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. The revised rates are as follows:</p> <p>For general category States/UTs:</p> <ul style="list-style-type: none"> <li>• Individual Household - For first 3 kW: Rs. 14588/ kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 7294/kW.</li> <li>• Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 7294/kW for common facilities up to 500 kWp @ 10 kWp per house.</li> </ul> <p>For special category States/UTs:</p> <ul style="list-style-type: none"> <li>• Individual Household - For first 3 kW: Rs. 17662/ kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 8831/kW.</li> <li>• Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 8831/kW for common facilities up to 500 kWp @ 10 kWp per house.</li> </ul>
b) Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme)	Viability Gap Funding (VGF) support up to Rs 55 lakhs per MW to the CPSUs/Govt. Organizations entities selected through competitive bidding process.
c) PLI Scheme 'National Programme on High Efficiency Solar PV Modules'	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: (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.
d) Solar Park Scheme	Up to 25 lakhs per Solar park, for preparation of Detailed Project Report (DPR). 20 Lakh per MW or 30% of the project cost, whichever is lower, for development of infrastructure.

Scheme/ Programmes	Incentive presently eligible as per the Scheme
e) PM-KUSUM scheme	<p><b>Component A:</b> 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 payable to DISCOMs is up to Rs. 33 Lakh per MW.</p> <p><b>Component B:</b> Installation of 20 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 &amp; Kashmir, Ladakh, Himachal Pradesh and Uttarakhand, Lakshadweep and A&amp;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><b>Component C:</b> Solarisation of 15 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation.</p> <p>Benefit available:</p> <ul style="list-style-type: none"> <li>• 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 &amp; Kashmir, Ladakh, Himachal Pradesh and Uttarakhand, Lakshadweep and A&amp;N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component is provided.</li> <li>• 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 as provided by MNRE. However in North Eastern States, Sikkim, Jammu &amp; Kashmir, Ladakh, Himachal Pradesh, Uttarkhand, Lakshadweep and Andaman &amp; Nicobar Island, CFA of Rs. 1.75 crore per MW is provided.</li> </ul>
f) Green Energy Corridor Scheme (for development of intra-state transmission system for RE projects)	<p>GEC Phase-I: CFA of 40 % of DPR cost or awarded cost whichever is lower.</p> <p>GEC Phase-II: CFA of 33 % of DPR cost or awarded cost whichever is lower.</p>
g) Biomass Programme	<p>(a) For Briquette/Pellet manufacturing plants: Rs. 9.00 Lakhs/ MTPH (Maximum CFA- Rs. 45 Lakh per project)</p> <p>(b) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakh/ Megawatt (Maximum CFA- Rs. 5 crore per project)</p>
h) Waste to Energy Programme	<p>(i) for Biogas generation: Rs 0.25 crore per 12000 cum/day (Maximum CFA- Rs.5 crore/project)</p> <p>(ii) for BioCNG/Enriched Biogas/Compressed Biogas generation: (Maximum CFA- Rs.10 crore/project)</p> <ul style="list-style-type: none"> <li>• BioCNG generation from new Biogas plant- Rs 4.0 crore per 4800 Kg/day;</li> <li>• BioCNG generation from existing Biogas plant- Rs 3.0 crore per 4800 Kg/day;</li> </ul>

Scheme/ Programmes	Incentive presently eligible as per the Scheme
	<p>(iii) for Power generation based on Biogas (Maximum CFA- Rs. 5.00 crore/project):-</p> <ul style="list-style-type: none"> <li>• Power generation from new biogas plant: Rs 0.75 crore per MW</li> <li>• Power generation from existing biogas plant: Rs 0.5 crore / MW</li> </ul> <p>(iv) for Power generation based on bio &amp; agro-industrial waste (other than MSW through incineration process):- Rs. 0.40 crore/MW (Maximum CFA - Rs.5.00 Crore/Project)</p> <p>(v) for Biomass Gasifier for electricity/ thermal applications:</p> <ul style="list-style-type: none"> <li>• Rs. 2,500 per kW<sub>e</sub> with dual fuel engines for electrical application</li> <li>• Rs. 15,000 per kW<sub>e</sub> with 100% gas engines for electrical application</li> <li>• Rs. 2 lakh per 300 kW<sub>th</sub> for thermal applications.</li> </ul> <p>Note:</p> <ul style="list-style-type: none"> <li>• In case, the Waste to Energy plants are set up in Special Category States (NE Region, Sikkim, Himachal Pradesh and Uttarakhand), Jammu &amp; Kashmir, Ladakh, Lakshadweep and Andaman &amp; Nicobar Islands, the eligible CFA would be 20% higher than Standard CFA pattern given above.</li> <li>• 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.</li> </ul>
i) Biogas Programme	<p>(i) 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>(ii) 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 NER, Island, Registered Gaushalas and SC/ST beneficiaries.</p>
j) R&D programme	<p>The Ministry encourages research and technology development proposals in collaboration with the industry and provides upto 100% financial support to Government/non-profit research organizations and upto 50-70% to Industry, Start-ups, Private Institutes, Entrepreneurs and Manufacturing units.</p>
k) National Green Hydrogen Mission	<p>The SIGHT scheme guidelines under the Mission have been notified for Electrolyser Manufacturing and Mode-I for Green Hydrogen production.</p> <p>SIGHT programme for Electrolyser manufacturing has an allocation of Rs. 4440 crores by 2029-30. The incentives start from Rs. 4440 per kW in the first year and end at Rs. 1480 per kW in the fifth year.</p> <p>SIGHT programme for Green Hydrogen production (Mode-I) provides incentives for Green Hydrogen production, which are capped at Rs. 50/kg, Rs. 40/kg and Rs. 30/kg for the first, second and third year respectively.</p>