

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 403
ANSWERED ON 24/07/2024

FINANCIAL AND TECHNICAL SUPPORT TO PROMOTE N&RE

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

- (a) whether the Government is providing financial and technical support for the implementation of schemes to promote New and Renewable Energy (N&RE) including Solar, Wind energy and other schemes in the country especially Tamil Nadu and particularly its Chennai South and Vellore Parliamentary Constituencies;
- (b) if so, the details thereof;
- (c) the effective measures taken by the Government to harness the huge potential of N&RE sources and solar energy in Government buildings, Hospitals, Universities and Colleges including the said constituencies; and
- (d) the total production of Renewable Energy in Tamil Nadu during the last five years?

ANSWER

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

(SHRI PRALHAD JOSHI)

(a) & (b) Yes, Sir. The Government provides financial and technical including skilling support under various schemes being implemented by the Ministry of New and Renewable Energy (MNRE) for development and promotion of new and renewable energy in all the states/UTs of the country, including State of Tamil Nadu. The details of Central Financial Assistance (CFA) provided under the various schemes are given in **Annexure**.

(c) The government launched the PM Surya Ghar: Muft Bijli Yojana on 13.02.2024. One of its components involves the saturation of Government buildings with rooftop solar. Operational guidelines, issued on 03.07.2024, delineate the roles of various stakeholders in ensuring the saturation of Government buildings at both the Central and State levels under the Scheme.

Further, as informed by the TANGEDCO (Tamil Nadu Generation and Distribution Corporation), the Tamil Nadu Energy Development Agency (TEDA) is implementing the solarization of Government buildings across the State of Tamil Nadu by installing rooftop solar under the CAPEX mode. This initiative specifically targets Government offices, court complexes, State-run industrial units, and educational institutions.

(d) As per the information received from Central Electricity Authority (CEA), the total Renewable Energy (RE) electricity generation in Tamil Nadu during the last five years and the current year is as under:

Year	RE Generation (in BU)
2019-20	24.53
2020-21	26.87
2021-22	29.27
2022-23	33.59
2023-24	33.17
2024-25 (Up to May)	4.62

Annexure referred to in reply of part (a) & (b) of the Lok Sabha Unstarred Question No. 403 to be answered on 24.07.2024

Incentives being provided as Central Financial Assistance (CFA) for the implementation of major Renewable Energy Schemes/Programmes

Scheme/Programmes	Incentives presently available as per the Scheme			
a) PM Surya Ghar: Muft Bijli Yojana	The details of the CFA pattern for the component “CFA to Residential Consumers” under this scheme are as follows:			
	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
b) Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers	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;			

Scheme/Programmes	Incentives presently available as per the Scheme
	(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	(a) Up to Rs. 25 lakhs per Solar Park, for preparation of Detailed Project Report (DPR). (b) Rs. 20 lakh per MW or 30% of the project cost, whichever is lower, for development of infrastructure.
e) PM-KUSUM scheme	<p>Component A: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants</p> <p>Benefits 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>Component B: Installation of 14 Lakh Stand-alone Solar Pumps</p> <p>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. 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 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, Uttarkhand, Lakshadweep</p>

Scheme/Programmes	Incentives presently available as per the Scheme
	and Andaman & Nicobar Island, CFA of Rs. 1.75 crore per MW is provided.
f) Green Energy Corridor Scheme (for development of intra-state transmission system for RE projects)	(a) GEC Phase-I: CFA of 40% of DPR cost or awarded cost whichever is lower. (b) GEC Phase-II: CFA of 33% of DPR cost or awarded cost whichever is lower.
g) Biomass Programme	(a) For Briquette manufacturing plants: Rs. 9 Lakhs/MTPH (metric ton/hour) [Maximum CFA- Rs. 45 Lakh per project] (b) 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) (c) 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) (d) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/MW (Maximum CFA- Rs. 5 Crore per project)
h) Waste to Energy Programme	(a) For Biogas generation: Rs. 0.25 crore per 12000 cum/day (Maximum CFA- Rs.5 crore/project) (b) For BioCNG/Enriched Biogas/Compressed Biogas generation: (Maximum CFA- Rs.10 crore/project) (i) BioCNG generation from new Biogas plant – Rs. 4 Crore per 4800 Kg/day; (ii) BioCNG generation from existing Biogas plant - Rs 3 Crore per 4800 Kg/day; (c) For Power generation based on Biogas (Maximum CFA - Rs. 5 crore/project): (i) Power generation from new biogas plant: Rs. 0.75 crore per MW (ii) Power generation from existing biogas plant: Rs. 0.5 crore per MW (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) (e) For Biomass Gasifier for electricity/ thermal applications: i) Rs. 2,500 per kW _e with dual fuel engines for electrical application ii) Rs. 15,000 per kW _e with 100% gas engines for electrical application

Scheme/Programmes	Incentives presently available as per the Scheme
	<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.
<p>i) Biogas Programme</p>	<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>
<p>j) R&D programme</p>	<p>The Ministry encourages research and technology development proposals in collaboration with the industry and provides up to 100% financial support to Government/non-profit research organizations and up to 70% to Industry, Start-ups, Private Institutes, Entrepreneurs and Manufacturing units.</p>
<p>k) National Green Hydrogen Mission</p>	<p>The Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme guidelines under the Mission have been notified for Electrolyser Manufacturing and Mode-1, Mode 2A and Mode 2B for Green Hydrogen Production.</p> <p>(a) SIGHT programme for Electrolyser manufacturing has an allocation of Rs. 4440 crore 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-1) 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> <p>For Mode 2A and 2B, the incentives are fixed at Rs. 50/kg, Rs. 40/kg and Rs. 30/kg for the first, second and third year respectively</p>

Scheme/Programmes	Incentives presently available as per the Scheme
	<p>(b) Pilot projects for projects in Mobility sector have an outlay of Rs. 496 crore.</p> <p>(c) Pilot projects in Shipping sector have an outlay of Rs. 115 crore.</p> <p>(d) Pilot projects in Steel sector have an outlay of Rs. 455 crore.</p> <p>(e) Hydrogen hubs have been allocated an outlay of Rs. 200 crore.</p> <p>(f) The R&D program of the Mission has a budget of Rs. 400 crore.</p> <p>(g) Skill Development component of the Mission has an outlay of Rs. 35 crore.</p> <p>(h) The Testing component of the Mission has an outlay of Rs. 200 crore.</p>