

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 922**  
ANSWERED ON 08/02/2024

**GENERATION OF RENEWABLE ENERGY**

922. SHRI C.R. PATIL  
SHRI PRATAP CHANDRA SARANGI

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

- (a) whether the Government has details of schemes to leverage potential for renewable energy generation such as solar, wind, biomass etc., in Navsari, Gujarat and in Balasore, Odisha;
- (b) if so, the details of such schemes being implemented in the said districts and if not, the reasons therefor;
- (c) whether any incentives and subsidies are being provided by the Ministry to promote renewable energy generation in the said districts; and
- (d) if so, the details of such incentives and if not, the reasons therefor?

**ANSWER**

**THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER**

**(SHRI R.K. SINGH)**

(a) & (b): The details of schemes being implemented in the country, including the States of Gujarat and Odisha, to leverage potential for renewable energy generation are given in **Annexure-I**.

As per information provided by Odisha Renewable Energy Development Agency (OREDA), the details of schemes being implemented in Balasore District by OREDA are as follows:

Sl. No.	Scheme	Achievement	Capacity
1.	Grid Connected Rooftop Solar Programme (GCRTS)	1. Collectorate Balasore 2. Modern Engg. & Mgmt studies 3. Balasore Panchayat Samiti 4. Remuna Panchayat Samiti 5. Bhogarai Panchayat Samiti	1) 15 KW 2) 75 KW 3) 15 KW 4) 15 KW 5) 15 KW
2.	PM-KUSUM Component -B	7 Nos 3HP DC Submersible Solar Pump	21 KW
3.	Saurajalani dhi	35 nos 0.5 HP DC surface pump	17.5 KW

As per information provided by Gujarat Energy Development Agency (GEDA), under the Solar Rooftop scheme of Government Buildings, total 1514.54 kilowatt solar system has been installed in 81 buildings in Navsari district till the year 2022-23.

(c) & (d): The details of incentives being provided as Central Financial Assistance (CFA) for the implementation of major renewable energy schemes/ programmes by the Ministry are given in **Annexure-II**.

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**Annexure-I referred to in reply to part (a) of Lok Sabha Unstarred Question No. 922 for 08/02/2024 regarding 'Generation of Renewable Energy'**

**Details of the ongoing major Renewable Energy Schemes / Programmes**

1. Scheme for Development of Solar Parks and Ultra-mega Solar Power Projects with a target of setting up 40,000 MW capacity. Under the scheme, the infrastructure such as land, roads, power evacuation system water facilities are developed with all statutory clearances/approvals. Thus, the scheme helps expeditious development of utility-scale solar projects in the country.
2. Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by Government Producers, using domestically manufactured solar PV cells and modules, with Viability Gap Funding (VGF) support, for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS).
3. Production Linked Incentive scheme 'National Programme on High Efficiency Solar PV Modules' for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules (Tranche- I & II).
4. PM-KUSUM Scheme to promote small Grid Connected Solar Energy Power Plants, stand-alone solar powered agricultural pumps and solarisation of existing grid connected agricultural pumps. The scheme is not only beneficial to the farmers but also States and DISCOMS. States will save on subsidy being provided for electricity to agriculture consumers and DISCOMS get cheaper solar power at tail end saving transmission and distribution losses.
5. Rooftop Solar Programme Phase II for grid connected solar rooftop power plants. Under this Programme, subsidy is provided for residential sector and performance linked incentives to DISCOMS for achieving capacity addition in rooftop solar above baseline.
6. Green Energy Corridors (GEC): to create intra-state transmission system for renewable energy projects. Central Financial Assistance (CFA) is provided to set up transmission infrastructure for evacuation of Power from Renewable Energy projects in total ten States (considering both the phases of GEC).
  - (i) Intra-State Transmission System Green Energy Corridor Phase-I
  - (ii) Intra-State Transmission System Green Energy Corridor Phase-II
7. Bio-Energy Programme:
  - Waste to Energy Programme : Programme on Energy from Urban, industrial and Agricultural Wastes/Residues
  - Biomass Programme: Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries.
  - Biogas Programme : for promotion of family type Biogas plants
8. Renewable Energy Research and Technology Development (RE-RTD) Programme.
9. Human Resource Development Scheme with components such as short term trainings & skill development programmes, fellowships, internships, support to lab upgradation for RE and renewable energy chair.
10. National Green Hydrogen Mission launched with an outlay of Rs. 19,744 crore with aim to make India a Global Hub for production, utilization and export of Green Hydrogen and its derivatives.

Annexure-II referred to in reply to part (c)&(d) of Lok Sabha Unstarred Question No. 922 for 08/02/2024 regarding 'Generation of Renewable Energy'

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

<b>Scheme/ Programmes</b>	<b>Incentive presently eligible as per the Scheme</b>
a) Grid Connected Rooftop Solar PV Power Projects	<p>The Ministry of New and Renewable Energy (MNRE) launched the Rooftop Solar Programme Phase-II on 08.03.2019 with the objective to achieve 40 GW of rooftop solar (RTS). The Programme envisages the installation of 4,000 MW of RTS capacity in the residential sector by providing Central Financial Assistance (CFA). The CFA admissible for general category states is Rs. 18000/kW for the first 3 kW RTS capacity and Rs. 9000/kW for RTS capacity beyond 3 kW and up to 10 kW. For special category states (North-eastern states including Sikkim, Uttarakhand, Himachal Pradesh, UT of Jammu &amp; Kashmir, Ladakh, Lakshadweep, and Andaman &amp; Nicobar Islands), the admissible CFA is Rs. 20000/kW for first 3 kW RTS capacity and Rs. 10000 /kW for RTS capacity beyond 3 kW and up to 10 kW. The Resident Welfare Associations/ Group Housing Societies (RWA/GHS) are also eligible to avail CFA for RTS installation in common facilities, up to a maximum of 500 kW capacity. The CFA admissible for RWA/GHS is Rs. 9000/kW in general category states and Rs. 10000/kW in special category states.</p> <p>The Financial outlay of the Phase-II Rooftop Solar (RTS) programme is Rs.11,814 Crore which includes Rs.6,600 Crore of CFA and Rs.4,985 Crore of incentives to the Distribution Companies. The Programme has been extended till 31.03.2026 without change in the financial outlay initially approved for the Programme.</p>
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; (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.
e) PM-KUSUM scheme	<p><b>Component A:</b> Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants 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 14.00 Lakh Stand-alone Solar Pumps 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</p>

Scheme/ Programmes	Incentive presently eligible as per the Scheme
	<p>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><b>Component C:</b> Solarisation of 35 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation Benefit available: (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 &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. 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 &amp; Kashmir, Ladakh, Himachal Pradesh, Uttarkhand, Lakshadweep and Andaman &amp; Nicobar Island, CFA of Rs. 1.75 crore per MW is provided.</p>
f) Green Energy Corridor Scheme (for development of intra-state transmission system for RE projects)	GEC Phase-I: CFA of 40 % of DPR cost or awarded cost whichever is lower. GEC Phase-II: CFA of 33 % of DPR cost or awarded cost whichever is lower.
g) Biomass Programme	<p>(a) For Briquette/Pellet manufacturing plants: Rs. 9.00 Lakhs/ MTPH (Maximum CFA- Rs. 45.00 Lakh per project)</p> <p>(b) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/ Megawatt (Maximum CFA- Rs. 5.00 Crore per project)</p>
h) 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 &amp; 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<sub>e</sub> with duel fuel engines for electrical application</p> <p>ii) Rs. 15,000 per kW<sub>e</sub> with 100% gas engines for electrical application</p> <p>iii) Rs. 2 lakh per 300 kW<sub>th</sub> for thermal applications.</p> <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</li> </ul>

Scheme/ Programmes	Incentive presently eligible as per the Scheme
	<p>Islands, the eligible CFA would be 20% higher than Standard CFA pattern given above.</p> <ul style="list-style-type: none"> <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) <b>Biogas Programme</b>	<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 NER, Island, Registered Gaushalas and SC/ST beneficiaries</p>
j) <b>R&amp;D programme</b>	<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 70% to Industry, Start-ups, Private Institutes, Entrepreneurs and Manufacturing units.</p>
k) <b>National Green Hydrogen Mission</b>	<p>The SIGHT scheme guidelines under the Mission have been notified for Electrolyser Manufacturing and Mode-I for Green Hydrogen production.</p> <p>1. 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>