

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 1568
ANSWERED ON 14.03.2023

POWER GENERATED UNDER RENEWABLE ENERGY

1568. SHRI SANJEEV ARORA

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

- (a) the details of incentives being given for new projects under new and renewable energy;
and
(b) the details of power generated under renewable energy, State/UT-wise?

ANSWER

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

(a) 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-I.**

(b) The state-wise details of generation from various renewable energy (RE) sources during the current year i.e., 2022-23 (upto Jan 2023) are given in **Annexure-II.**

Annexure-I referred to in reply to part (a) of Rajya Sabha Unstarred Question No. 1568 for 14/03/2023 regarding 'Power generated under renewable energy'**Incentives 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"> • Central Financial Assistance (CFA) up to 40% for capacity up to 3 kWp • CFA up to 20% for capacity beyond 3 kWp and up to 10 kWp • CFA up to 20% for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp) <p>(ii) For Discoms</p> <p>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.</p> <p>The revised rates are as follows:</p> <p>For general category States/UTs:</p> <p>i. Individual Household - For first 3 kW: Rs. 14588/ kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 7294/kW.</p> <p>ii. Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 7294/kW for common facilities up to 500 kWp @ 10 kWp per house.</p> <p>For special category States/UTs:</p> <p>i. Individual Household - For first 3 kW: Rs. 17662/ kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 8831/kW.</p> <p>ii. Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 8831/kW for common facilities up to 500 kWp @ 10 kWp per house.</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>Component A: 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 that payable to DISCOMs is upto Rs. 33 Lakh per MW.</p> <p>Component B: Installation of 20.00 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 & Kashmir, Ladakh, Himachal Pradesh and 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> <p>Component C: Solarisation of 15 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation</p> <p>Benefit available:</p> <p>(a) 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</p>

Scheme/ Programmes	Incentive presently eligible as per the Scheme
	<p>North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh and 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.</p> <p>(b) 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 available from MNRE.</p>
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. 45.00 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 & 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_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.
i) 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) 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>

Annexure referred to in reply to part (b) of Rajya Sabha Unstarred Question No. 1568 for 14/03/2023 regarding 'Power generated under renewable energy'

State-wise details of generation from various renewable energy (RE) sources during the current year i.e., 2022-23 (upto Jan 2023)

(All fig. in MUs)

Name of State/ UT	Wind	Solar	Bio- Power	Small Hydro	Renewable Energy Total	Large Hydro*	Total RE including Large Hydro
Chandigarh	0.00	9.75	0.00	0.00	9.75	0.00	9.75
Delhi	0.00	201.69	225.37	0.00	427.06	0.00	427.06
Haryana	0.00	460.67	518.54	217.50	1196.71	0.00	1196.71
HP	0.00	50.69	0.00	2653.15	2703.84	35805.39	38509.23
J & K	0.00	0.00	0.00	343.15	343.15	14889.29	15232.44
Ladakh	0.00	0.00	0.00	0.00	0.00	373.83	373.83
Punjab	0.00	2165.74	520.96	587.03	3273.73	3753.15	7026.88
Rajasthan	5467.08	28104.14	331.44	5.09	33907.75	773.84	34681.59
Uttar Pradesh	0.00	2945.98	2244.98	195.15	5386.11	826.58	6212.69
Uttarakhand	0.00	276.50	207.10	294.50	778.10	14029.64	14807.74
Chhattisgarh	0.00	482.98	965.36	140.95	1589.29	194.00	1783.29
Gujarat	17062.81	8215.84	8.00	165.11	25451.76	5424.48	30876.24
Madhya Pradesh	4000.28	3155.93	119.51	301.10	7576.81	6346.66	13923.47
Maharashtra	6553.88	3441.24	3597.35	648.18	14240.65	4928.84	19169.49
Dadra and Nagar Haveli and Daman and Diu	0.00	24.46	3.22	0.00	27.68	0.00	27.68
Goa	0.00	11.84	4.24	0.00	16.08	0.00	16.08
Andhra Pradesh	6691.66	6601.74	361.70	332.60	13987.70	3343.21	17330.91
Telangana	244.61	5428.40	242.32	86.20	6001.54	5771.16	11772.70
Karnataka	8657.01	11363.08	2377.83	2154.03	24551.95	11080.07	35632.02
Kerala	165.18	697.67	52.08	767.45	1682.38	7059.12	8741.50
Tamil Nadu	15703.60	7505.74	734.00	268.73	24212.06	5395.05	29607.11
Lakshadweep	0.00	0.09	0.00	0.00	0.09	0.00	0.09
Puducherry	0.00	10.20	0.00	0.00	10.20	0.00	10.20
Andaman Nicobar	0.00	19.49	0.00	12.94	32.43	0.00	32.43
Bihar	0.00	139.53	62.89	10.90	213.32	0.00	213.32
Jharkhand	0.00	16.76	0.00	0.00	16.76	284.85	301.61
Orissa	0.00	571.62	49.88	383.50	1005.00	4802.47	5807.47
Sikkim	0.00	0.00	0.00	10.30	10.30	11138.52	11148.82
West Bengal	0.00	101.50	1369.73	181.55	1652.79	3098.92	4751.71
Arunachal Pradesh	0.00	21.93	0.03	2.40	24.35	4463.11	4487.46
Assam	0.00	174.20	0.00	56.72	230.92	454.02	684.94
Manipur	0.00	6.93	0.01	0.00	6.94	460.49	467.43
Meghalaya	0.00	0.00	0.00	63.92	63.92	918.20	982.12
Mizoram	0.00	2.68	0.00	43.07	45.75	182.63	228.38
Nagaland	0.00	0.00	0.00	105.76	105.76	169.24	275.00
Tripura	0.00	5.49	0.00	0.00	5.49	0.00	5.49
All India Total	64546.10	82214.50	13996.52	10030.98	170788.10	145966.76	316754.86

* Large hydro generation Excluding Import from Bhutan