

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 2558
ANSWERED ON 07/08/2024

HYDRO ENERGY PROJECTS

2558. SMT. MALVIKA DEVI

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

- (a) the steps being taken to ensure that the hydro energy projects are properly set up in areas where there are good flow of water in the rivers;
- (b) whether any new projects are coming up in Odisha specially in Kalahandi and Nuapada and if so, the details thereof;
- (c) whether the Government is planning to provide any subsidies for people who want to set up mini hydro or solar power projects and if so, the details thereof; and
- (d) the details of the companies that will supply solar panels for Odisha in the coming year under the solar project and the manner in which it is proposed to make people aware of procedure to apply for these panels to be installed in their houses specially in Kalahandi and Nuapada?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) **I.** The steps taken by this Ministry to properly set up Small Hydro Power projects (up to 25MW) are given below:

- i. Assessment of Small Hydro Power potential was carried out by Indian Institute of Technology, Roorkee in 2016. As per the report, the estimated potential of Small Hydro Power is 21133 MW from 7133 potential sites. This potential has been assessed for Run-of-River, Canal based and Dam-toe projects.
- ii. Setting up of Small Hydro Power projects depend on water discharge and head available at particular location and are site specific. Hence, this Ministry has also developed 27 nos. of Standards/Guidelines/Manuals during 2013-14 by engaging Indian Institute of Technology, Roorkee to enable proper development of Small Hydro Power projects.

II. For Hydro projects above 25MW, Reassessment Studies have been carried out by Central Electricity Authority (CEA) during 2017-23, considering following factors:-

- Ensuring optimal utilization of river basin
- Availability of sufficient Head
- Availability of adequate hydrology

According to this assessment, hydroelectric power potential (above 25MW) of the country is about 133GW.

(b) The list of upcoming projects in Odisha, including projects in Kalahandi, is given at **Annexure I**. There are no upcoming projects in Nuapada, Odisha.

(c) There is no Small Hydro Power Scheme at present to provide subsidy to the people who want to set up Mini Hydro Power projects. However, Central Financial Assistance (CFA) being

provided for the implementation of solar power projects under various schemes are listed at **Annexure II.**

(d) As on 05.08.2024, a total of 102 vendors are registered for carrying out the installations of the rooftop solar under PM Surya Ghar: Muft Bijli Yojana for the State of Odisha.

Further, to make people aware of the scheme, multiple outreach campaigns have been executed in the State of Odisha, inter alia, including:

- i. TV commercials were aired on prominent news and general entertainment channels such as Kanak TV, Colors Oriya, News 18 Oriya, Kalinga TV, and OTV during prime time;
- ii. Radio jingles were broadcasted on FM channels like Radio Choklate FM, Red FM, Big FM Rourkela, and Radio Choklate FM Rourkela;
- iii. Newspaper advertisements were placed in both national and regional newspapers;
- iv. A Pan-India execution of Google advertisements, social media campaigns, and digital website promotions was carried out; etc.

**Annexure I referred to in reply of part (b) of the Lok Sabha Unstarred Question No. 2558 to be answered
on 07.08.2024**

The list of upcoming projects in Odisha including projects in Kalahandi

a) Hydro Power projects with more than 25MW capacity:

S. No.	Name of the Projects	Capacity (MW)	District
1.	Balimela	510.00	Malkangiri
2.	Hirakud (Burla)	287.80	Sambalpur
3.	Hirakud (Chiplima)	72.00	Sambalpur
4.	Rengali	250.00	Angul
5.	Upper Indravati	600.00	Kalahandi
6.	Upper Kolab	320.00	Koraput
7.	Machkund	114.75	Koraput
8.	Bhimkund	30.00	Keonjhar
9.	Baljori	230.00	Keonjhar
10.	Lodani	64.00	Sundergarh
11.	Tikkarpara	220.00	Angul
12.	Salki	70.00	Boudh
13.	Kharag	63.00	Kandhmal
Total		2831.55	

b) Pumped Storage projects:

S. No.	Name of the Projects	Capacity (MW)	District
1.	Upper Indravati	600.00	Kalahandi
2.	Balimela	500.00	Malkangiri
3.	Upper Kolab	600.00	Koraput
4.	Greenko OD01	1200.00	Kalahandi
5.	Ramial Left	1500.00	Keonjhar
6.	Tainsar	675.00	Deogarh
Total		5075.00	

c) Small Hydro Power projects (up to 25MW capacity):

S. No.	Name of the projects	Capacity (MW)	District
1.	Dumajorhi SHP	15.00	Koraput
2.	Kharagpur SHP	16.50	Koraput
3.	Shaheed Lakhman Nayak SHP	25.00	Koraput
Total		56.50	

d) Biomass Power Projects:

S. No.	Name of the Project	Capacity (MTPH)	Type of output	District
1.	Goodlife Biotech	2.00	Briquette	Baleshwar
Total		2.00		

e) Development of Solar Parks and Ultra-mega Solar Power Projects:

As on date, one Solar Park of 40 MW has been sanctioned under the scheme for "Development of Solar Parks and Ultra Mega Solar Power Projects," which is being developed by NHPC, in Ganjam district of Odisha.

Annexure II referred to in reply of part (c) of the Lok Sabha Unstarred Question No. 2558 to be answered on 07.08.2024

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

Scheme/Programme	Incentives presently available as per the Scheme			
<p>a) PM-Surya Ghar: Muft Bijli Yojana for installing rooftop solar for 1 Crore households.</p>	<p>The details of the CFA pattern for the component “CFA to Residential Consumers” under this scheme are as follows:</p>			
	S. No.	Type of Residential Segment	CFA	CFA (Special Category States/UTs)
	1.	Residential Sector (first 2kWp of Rooftop Solar (RTS) capacity or part thereof)	Rs. 30,000/kWp	Rs. 33,000/kWp
	2.	Residential Sector (with additional RTS capacity of 1kWp or part thereof)	Rs. 18,000/kWp	Rs. 19,800/kWp
	3.	Residential Sector (additional RTS capacity beyond 3kWp)	No additional CFA	No additional CFA
	4.	Group Housing Societies/ Residential Welfare Associations (GHS/RWA) etc. for common facilities including EV charging up to 500kWp (@3 kWp per house)	Rs. 18,000/kWp	Rs. 19,800/kWp
<p>b) Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up grid-connected Solar Photovoltaic (PV) Power projects by Government Producers using domestically manufactured solar PV cells and modules, with Viability Gap Funding (VGF)</p>	<p>Viability Gap Funding (VGF) support up to Rs. 55 Lakh per MW to the CPSUs/Govt. Organizations entities selected through competitive bidding process.</p>			

<p>support, for self-use or use by Government/ Government entities, either directly or through Distribution Companies</p>	
<p>c) 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)</p>	<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> <ol style="list-style-type: none"> 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.
<p>d) 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.</p>	<p>(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.</p>
<p>e) PM-KUSUM Scheme to promote small Grid Connected Solar Energy Power Plants, stand-alone solar powered agricultural pumps and solarization of existing grid connected agricultural pumps.</p>	<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</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.

Component C: Solarization of 35 Lakh Grid Connected Agriculture Pumps including through Feeder Level Solarization

Benefits 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 & 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.

(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 Islands, CFA of Rs. 1.75 Crore per MW is provided.