

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 1418**  
ANSWERED ON 01/08/2023

**CANAL TOP PHOTOVOLTAIC TECHNOLOGY PROJECT**

1418. DR. SANTANU SEN

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

- (a) the financial implications and cost factors associated with mounting solar panels on canals, including the estimated cost difference between Canal Top Photovoltaic Technology (CTPV) installations and ground-mounted solar projects;
- (b) the current status and progress of the CTPV projects in the country, including the number of installations and their cumulative capacity;
- (c) the reasons behind the limited progress of CTPV projects compared to ground-mounted solar parks; and
- (d) the steps taken by Government to promote the development of CTPV projects in order to harness the potential benefits of this technology?

**ANSWER**

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

(a) to (d) When compared to ground mounted solar projects, canal top solar projects generally involve a significantly higher expenditure on civil works (including module mounting structures, etc.) for projects to be set up on the canal leading to increase in total project cost. Therefore, the cost of power produced from such Canal Top Photovoltaic Technology (CTPV) projects is generally higher than the cost of power produced from ground mounted solar power projects.

On 05.12.2014, Ministry of New & Renewable Energy (MNRE), Government of India, had notified a scheme for 'Pilot-cum-Demonstration Project for Development of Grid Connected Solar PV Power Plants on Canal Banks and Canal tops', in order to incentivize gainful utilization of the unutilized area on top of canals and also the vacant Government land along the banks of canals wherever available for setting up of solar PV power generation plants. Under this scheme, a total of 9 canal top PV projects with an aggregate capacity of 44 MW were installed by 20.06.2018. In addition to the canal top PV projects set up under the said scheme, Sardar Sarovar Narmada Nigam Limited (SSNNL), Government of Gujarat, has set up another 11 MW Canal Top Solar projects on Narmada Canal. The project cost per MW of the Canal Top Solar Projects commissioned under MNRE's Scheme was in the range of Rs. 7.32 to 9.85 crore per MW in different canal top projects, whereas the project cost for a generic ground mounted solar PV in projects during the same period was around Rs. 5-6 crore per MW.

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