

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 4086
TO BE ANSWERED ON 12.12.2019

ASSESSMENT OF SOLAR ENERGY POTENTIAL

4086. SHRI BENNY BEHANAN
SHRI MANOJ KOTAK

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

- (a) whether the Government has made any assessment of solar energy potential in the country;
- (b) if so, the details thereof along with the growth of the solar energy sector, percentage-wise, during the last five years;
- (c) the estimated power in megawatt being produced and likely to be produced from the solar energy;
- (d) the electricity in megawatt generated from the solar energy during the said period;
- (e) the amount of subsidy disbursed by the Government for solar sector during the last two years; and
- (f) the obstacles faced by the said sector along with the steps taken/being taken by the Government to overcome it?

ANSWER

THE MINISTER OF STATE (I/C) FOR NEW & RENEWABLE ENERGY, POWER and MoS for SKILL DEVELOPMENT AND ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) and (b) : Yes, Sir. Government has made assessment of solar energy potential of around 750 GW in the country. The State-wise details are given in **Annexure**. The details of solar power capacity installed during last five years and percentage increase is given below:-

Year	Capacity added during year (MW)	Cumulative capacity (MW)	% increase
2014-15	1112.07	3743.97	42.25%
2015-16	3018.883	6762.853	80.63%
2016-17	5525.98	12288.83	81.71%
2017-18	9362.67	21651.46	76.19%
2018-19	6529.20	28180.66	30.16%

(c) As on 30.11.2019, solar power production capacity of 32527.52 MW has been installed in the country and a target of 1, 00, 000 MW has been fixed for upto 2022.

(d) The details of electricity generation capacity in megawatt from solar energy during last five years is given in reply to part (a) and (b) above.

(e) The Central Financial Assistance released by the Ministry under various schemes of solar power programmes in the country during last two years are given below:-

Year	Total Funds Released (Rs. Crore)
2017-18	1889.93
2018-19	2524.65

(f) The Government has observed obstacles like delays in payments by distribution companies in some States, delays in adoption of tariffs by concerned State Electricity Regulatory Commissions, reopening of contracts by State Government of Andhra Pradesh, etc.

In order to address the issues in Renewable Energy Sector and attract private investment, MNRE has taken the following steps:

(1) The State DISCOMs have been requested to honour Power Purchase Agreements (PPAs) and 'Must Run' status accorded to wind and solar power projects, as per provisions of Indian Electricity Grid Code 2010.

(2) In order to address the issues of delayed payments by State distribution companies to Renewable Energy generators, the Government through Ministry of Power's Order No. 23/22/2019-R&R dated 28.06.2019 has made it mandatory for the Distribution Licensees to open and maintain adequate Letters of Credit (LCs) as Payment Security Mechanism if provided for under Power Purchase Agreements with Distribution Licensees.

(3) Further, in order to strengthen the contractual provisions in the Contract (Power Purchase Agreements) between the solar power generators and the Procurers, and to facilitate setting up of Renewable Energy power projects, the Government, vide notification dated 22.10.2019 from Ministry of New & Renewable Energy, has made following major amendments to the 'Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects':

(i) Solar Power Generators have been allowed to submit documents/Lease Agreement to establish possession/right to use 100% (hundred per cent) of the required land in the name of the Solar Power Generator for a period not less than the complete term of the PPA, on or before the Scheduled Commissioning Date (SCD).

(ii) Clear and elaborate provisions for time extension and compensation to affected party in the event of natural and non-Natural Force Majeure events with specific provisions regarding termination due to natural and non-natural Force Majeure events have been included.

(iii) Quantum of compensation for back-down has been increased from 50% to 100% with provision for recognition of only written instructions of back-down.

(iv) Corresponding time extension in date for achievement of financial closure and scheduled commissioning date, in case there is a delay in adoption of tariff by the concerned State Electricity Regulatory Commission beyond a period of 60 days from the filing of such application.

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a & b) OF LOK SABHA
UNSTARRED QUESTION NO. 4086 FOR 12.12.2019****State-wise estimated Solar Energy Potential in the Country**

Sl. No.	State	Solar Power Potential (GWp)
1.	Andhra Pradesh	38.44
2.	Arunachal Pradesh	8.65
3.	Assam	13.76
4.	Bihar	11.20
5.	Chhattisgarh	18.27
6.	Delhi	2.05
7.	Goa	0.88
8.	Gujarat	35.77
9.	Haryana	4.56
10.	Himachal Pradesh	33.84
11.	Jammu & Kashmir	111.05
12.	Jharkhand	18.18
13.	Karnataka	24.70
14.	Kerala	6.11
15.	Madhya Pradesh	61.66
16.	Maharashtra	64.32
17.	Manipur	10.63
18.	Meghalaya	5.86
19.	Mizoram	9.09
20.	Nagaland	7.29
21.	Odisha	25.78
22.	Punjab	2.81
23.	Rajasthan	142.31
24.	Sikkim	4.94
25.	Tamil Nadu	17.67
26.	Telangana	20.41
27.	Tripura	2.08
28.	Uttar Pradesh	22.83
29.	Uttarakhand	16.80
30.	West Bengal	6.26
31.	UTs	0.79
	Total	748.98