

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 859**  
TO BE ANSWERED ON 28.04.2016

**PRODUCTION OF SOLAR ENERGY**

859. SHRI BHEEMRAO B. PATIL:  
SHRI CH. MALLA REDDY:  
SHRI B.S. YEDIYURAPPA:  
SHRIMATI KOTHAPALLI GEETHA:  
SHRI BHAIRON PRASAD MISHRA:

Will the Minister of New and Renewable Energy be pleased to state:

- (a) the total power production increased through solar energy in the country;
- (b) whether the country is capable of producing around five trillion kilowatts of solar energy, if so, the facts thereof;
- (c) whether the Government is targeting 100 gigawatt of solar power generation by 2022, if so, the present status thereof and the steps taken to achieve the target along with the investment made and expenditure incurred for the said purpose;
- (d) whether India along with the other countries has launched the International Solar Alliance at the Climate Change Conference in November last, if so, the vision behind this alliance and the manner in which the alliance mobilise investment or funds for this project;
- (e) whether the Government proposes to increase the subsidy given by different nodal agencies to push the generation of solar energy, if so, the details thereof; and
- (f) whether the Government has received any proposal from various State Governments for providing funds for generation of solar energy, if so, the details thereof and the action taken by the Government thereon, State-wise?

ANSWER

THE MINISTER OF STATE FOR POWER, COAL & NEW AND RENEWABLE ENERGY  
(INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

- (a):** As on 31.3.2016, a capacity of 6763 MW solar power has been installed.
- (b):** At present the estimated potential of India is to generate about 750 GW solar energy, which is estimated to generate 1250 billion units annually at average capacity utilization factor(CUF) of 19%.
- (c):** Yes, Madam. The Government has revised the National Solar Mission target of Grid Connected Solar Power projects from 20,000 MW by 2022 to 1,00,000 MW by 2022. Upto 31.3.2016, a capacity of 6763 MW has been achieved through solar power plants and a cumulative target of 17,000 MW has been kept for 2016-17. Government is providing the following fiscal and promotional incentives for promoting solar industry:-

- capital and/or interest subsidy,
- tax holiday on the earnings for 10 years,
- generation based incentive,
- accelerated depreciation,
- viability gap funding (VGF),
- financing solar rooftop systems as part of home loan,
- concessional excise and custom duties,
- preferential tariff for power generation from renewables, and
- Foreign direct investment up to 100 per cent under the automatic route.

In addition power is offered at lower tariff through schemes like bundling with thermal power and VGF. Keeping in view the solar capacity addition, an investment of about 40, 000 crore has been made by solar power developers. In addition, expenditure of Rs. 2400 Crore has been incurred by MNRE since launch of National Solar Mission for Grid connected Solar projects.

**(d):** International Solar Alliance (ISA), an alliance of 121 solar resource rich countries lying fully or partially between the tropic of Cancer and tropic of Capricorn was jointly launched by the Prime Minister of India and the President of France on 30 November 2015 at Paris, France on the side-lines of the 21st Conference of Parties to the United Nations Framework Convention on Climate Change.

ISA is envisioned as a specialized platform to contribute towards the common goal of increasing utilization and promotion of solar energy and solar applications in its member countries. The Paris declaration on ISA states that the countries share the collective ambition to undertake innovative and concerted efforts for reducing the cost of finance and cost of technology for immediate deployment of competitive solar generation, financial instruments to mobilise more than 1000 Billion US Dollars of investments needed by 2030 for the massive deployment of affordable solar energy and to pave the way for future solar generation, storage and good technologies for countries' individual needs.

**(e):** There is no proposal to increase the percentage of subsidy under off-grid solar programme which is largely implemented through nodal agencies.

**(f):** Solar energy generation projects are set up based on power purchase agreements offered by Distribution Companies. For this they are not required to send proposals to Government of India unless they require support under Government of India schemes for

various components. State-wise details of proposals sanctioned, received in accordance with different scheme guidelines from various State Government are given at Annexure.



**ANNEXURE**  
**ANNEXURE REFERRED TO IN REPLY TO PART (f) OF LOK SABHA**  
**UNSTARRED QUESTION NO. 859 FOR 28.4.2016**

**(a) List of Solar Parks approved**

Sl. No.	State	Capacity (MW)	Name of the Solar Power Parks Developer (SPPD)	Land identified at
1.	Andhra Pradesh	1500	AP Solar Power Corporation Pvt. Ltd., JVC of SECI, APGENCO and NREDCAP	NP Kunta of Anantpuramu & Galiveedu of Kadapa Districts
2.	Andhra Pradesh	1000		Kurnool District
3.	Andhra Pradesh	1000		Galiveedu Madal, Kadapa district
4.	Andhra Pradesh	500		Talaricheruvu Village, Tadipathri Mandal, Anathapuramu District of Andhra Pradesh
5.	Arunachal Pradesh	100	Arunachal Pradesh Energy Development Agency (APEEDA)	Tezu township in Lohit district
6.	Assam	69	JVC of APDCL, APGCL & SECI	Amguri in Sibsagar district
7.	Chhattisgarh	500	CREDA	Rajnandgaon, Janjgir Champa districts
8.	Gujarat	700	GPCL	Radhanesda, Vav, Distt. Banaskantha
9.	Haryana	500	Saur Urja Nigam Haryana Ltd (SUN Haryana)	Bugan in Hisar district, Baralu and Singhani in Bhiwani district and Daukhera in Mahendergarh district
10.	Himachal Pradesh	1000	HP State Electricity Board Ltd.	Spiti Valley of Lahaul & Spiti District
11.	Jammu & Kashmir	100	JAKEDA	Mohagarh and Badla Brahmana, District-Samba
12.	Karnataka	2000	Karnataka Solar Power Development Corporation Pvt. Ltd.	Pavagada taluk Tumkur dist.

Sl. No.	State	Capacity (MW)	Name of the Solar Power Parks Developer (SPPD)	Land identified at
			(KSPDCL); JVC of SECI and KREDAL.	
13.	Kerala	200	Renewable Power Corporation of Kerala Limited (RPCKL); JVC of SECI and KSEB	Paivalike, Meenja, Kinanoor, Kraindalam and Ambalathara villages of Kasargode district
14.	Madhya Pradesh	750	Rewa Ultra Mega Solar Limited; a JVC of SECI and MPUVNL	Rewa, MP
15	Madhya Pradesh	1000	Rewa Ultra Mega Solar Limited; a JVC of SECI and MPUVNL	Neemuch, Agar and Mandsaur
16.	Madhya Pradesh	500	Rewa Ultra Mega Solar Limited; a JVC of SECI and MPUVNL	Rajgarh and Shajapur
17.	Madhya Pradesh	500	Rewa Ultra Mega Solar Limited; a JVC of SECI and MPUVNL	Chhattarpur and Morena
18.	Maharashtra	500	M/s Pragat Akshay Urja Ltd	Sakri, Dhule district of Maharashtra
19.	Maharashtra	500	Maharashtra State Electricity Generating Company Ltd. (MAHAGENCO)	Dondaicha, district Dhule, Maharashtra
20.	Maharashtra	500	M/s K. P. Power Pvt. Ltd	Taluka Patoda, district Beed, Maharashtra
21.	Meghalaya	20	Meghalaya Power Generation Corporation Ltd (MePGCL)	West Jaintia Hills & East Jaintia Hills districts
22.	Nagaland	60	Directorate of New & Renewable Energy, Nagaland	Dimapur, Kohima and New Peren districts
23.	Odisha	1000	GEDCOL	Balasore, Keonjhar, Deogarh, Boudh, Kalahandi and Angul

Sl. No.	State	Capacity (MW)	Name of the Solar Power Parks Developer (SPPD)	Land identified at
24.	Rajasthan	680	Rajasthan Solar Park Development Company Ltd. (RSDCL), a subsidiary of RRECL	Bhadla Phase II, Bhadla, Rajasthan
25.	Rajasthan	1000	Surya Urja Company of Rajasthan Ltd; a JVC between State Govt. and IL & FS Energy Development Company Ltd	Bhadla Phase III, Bhadla, Rajasthan
26.	Rajasthan	750	M/s Essel Surya Urja Company of Rajasthan Limited; JV of GoR and Essel Infraprojects Limited	Villages Ugraas, Nagnechinagar & Dandhu, tehsil Phalodi, dist Jodhpur (450 MW) and villages Lavan & Purohitar, tehsil Pokaran, dist Jaisalmer (300 MW)
27.	Rajasthan	500	M/s Adani Renewable Energy Park Rajasthan Limited (AREPRL); a JVC of Government of Rajasthan and APEPRL.	Bhadla Phase IV, Bhadla, Jodhpur Rajasthan
28.	Rajasthan (321 MW through support of Gol out of 1500 MW)	321	M/s Adani Renewable Energy Park Rajasthan Limited (AREPRL); a JVC of Government of Rajasthan and APEPRL.	Fatehgarh & Pokaran, Jaisalmer, Rajasthan
29.	Telangana	500	SECI, Telangana GENCO and Telangana New & Renewable Energy Development Corporation Ltd. (TNREDC)	Gattu, Mehboob Nagar Distt.
30.	Uttar Pradesh	600	Lucknow Solar Power Development Corporation Ltd.; JVC of UPNEDA and SECI	Jalaun, Allahabad, Mirzapur and Kanpur Dehat districts

Sl. No.	State	Capacity (MW)	Name of the Solar Power Parks Developer (SPPD)	Land identified at
31.	Uttarakhand	50	State Industrial Development Corporation Uttarakhand Limited (SIDCUL)	Industrial Area, Sitarganj (Phase I), Industrial Area, Sitarganj (Phase II) and Industrial Area, kashipur
32.	West Bengal	500	West Bengal State Electricity Distribution Company Ltd.	East Mednipur, West Mednipur, Bankura
33.	<b>TOTAL</b>	<b>19400</b>		

**(b) Canal Top and Canal Bank projects approved**

**State-wise Allocation of 50 MW Canal-Top Solar PV projects**

Sl. No.	State	Implementing Agency in the State	Capacity for which in-principle approval has been given (MW)
1	Andhra Pradesh	New and Renewable Energy Development Corporation of Andhra Pradesh (NREDCAP)	1 MW canal-top
2	Gujarat	SardarSarovar Narmada Nigam Limited (SSNNL)	10 MW canal-top
3	Karnataka	Krishna Bhagya Jala Nigam Limited (KBJNL)	10 MW canal-top
4	Kerala	Kerala State Electricity Board Limited (KSEB)	2 MW canal-top
5	Punjab	Punjab Energy Development Agency (PEDA)	20 MW canal-top
6	Uttarakhand	Uttarakhand Jal Vidyut Nigam Limited	1 MW canal-top
7	Uttar Pradesh	Uttar Pradesh Irrigation Department	6 MW canal-top (3.5 MW + 2.5 MW)
	<b>Total</b>		<b>50 MW canal-top</b>

**State-wise Allocation of 50 MW Canal-Bank Solar PV Projects**

Sl. No.	State	Implementing Agency in the State	Capacity for which in-principle approval has been given (MW)
1	Andhra Pradesh	Andhra Pradesh Power Generation Corporation Limited	5 MW canal-bank

		(APGENCO)	
2	Gujarat	SardarSarovar Narmada Nigam Limited (SSNNL)	15 MW canal-bank
3	Kerala	Kerala State Electricity Board Limited (KSEB)	1 MW canal-bank
4	Uttarakhand	Uttarakhand Jal Vidyut Nigam Limited	19 MW canal-bank
5	West Bengal	West Bengal State Electricity Development Corporation Limited (WBSEDCL)	10 MW canal-bank
	<b>Total</b>		<b>50 MW canal-bank</b>