

**GOVERNMENT OF INDIA
NEW AND RENEWABLE ENERGY
LOK SABHA**

STARRED QUESTION NO:248
ANSWERED ON:07.02.2014
GENERATION OF SOLAR AND WIND ENERGY
Bhujbal Shri Sameer ;Dias Dr. Charles

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

- (a) the total potential/installed capacity of solar and wind energy in the country, State/UT-wise;
- (b) the details of programmes/schemes for generating solar and wind energy in the country along with targets set and achievements made during each of the last three years and the current year, State/UT-wise;
- (c) the details of the proposals received from the State/UTs in this regard and the funds allocated/released and utilized during the said period, State/UT-wise;
- (d) the details of subsidy provided by the Government to States/private companies for the purpose; and
- (e) whether the Government proposes to work out an exercise to grade the solar panel/equipment available in the market and if so, the details thereof along with the scheme being worked out for the purpose?

Answer

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH)

(a),(b),(c),(d)&(e): A Statement is laid on the Table of the House.

Statement

Statement referred to in reply to Parts (a), (b), (c), (d) & (e) of Lok Sabha Starred Question No. 248 for 07th February, 2014 regarding generation of Solar and Wind Energy

(a): India is endowed with large solar energy potential. About 5000 trillion kWh per year energy is incident over India's land area with most parts receiving 4-7 kWh per sq. m. per day. The details of commissioned grid connected solar power generation capacity till date under JNNSM, State-wise, is given in Annexure- A 1.

The total wind energy potential and installed capacity is at Annexure-A.2.

(b): The schemes implemented by Government of India for promoting the use of solar energy in the first and second phase of Jawaharlal Nehru National Solar Mission (JNNSM) are as under:

- # Off-Grid and Decentralized Solar Applications
- # Demonstration Programme on Grid Interactive Solar PV Power Generation
- # Demonstration Programme on Tail-end Grid Connected Solar PV Power Plants
- # Selection of New Grid Connected Solar Power Projects under Batch-I, Phase-I of JNNSM
- # Selection of New Grid Connected Solar Power Projects under Batch-II, Phase-I of JNNSM
- # Migration Scheme for Grid Connected Projects
- # Rooftop PV and Small Solar Power Generation Programme (RPSSGP)
- # Selection of New Grid Connected Solar Power Projects under Batch-I, Phase-II of JNNSM

The incentives offered under the various schemes for Grid/Off-grid Solar Power Programme are at Annexure-B.

Cabinet has approved application segment wise targets for the three phases of JNNSM. The targets under Phase-I, Phase-II and Phase-III and the achievements till date are as under:

Application Segment	Target for Phase I (2010-13)	Cumulative target Phase-II (2013-17)	Cumulative target Phase-III (2017-22)	Achievement till date
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Grid solar power (large plants, roof Top & distribution)	1,100 MW	10000 MW	20000 MW	2208 MW
		(including those under state		

Grid plants) initiative)

Off-grid solar 200 MW 1000MW 2000 MW 275.2MW
Applications allotment

Regarding Wind Energy, under the Generation Based Incentive (GBI), Rs.0.50/Unit is provided to private developers as incentive for generation of power subject to a ceiling of Rs.1.00 crore/MW. The benefit is to be availed in more than 4 years and less than 10 years. The year-wise targets and achievement in last three years and current year are given below:

Year Target (MW) Achievement (MW)

2010-11	2000	2350
2011-12	2400	3196
2012-13	2500	1700
2013-14	2500	1174 (upto January, 2014)

(c): The grid connected solar power projects under Phase-I of JNNSM have been allocated through bidding process and the bidder has to invest for setting up of the project. Under Phase-II of JNNSM, Grid Connected Projects will be allocated to bidders seeking minimum Viability Gap Funding (VGF). The process of bidding is under progress.

On the Solar PV Off-Grid Applications, the Ministry receives proposals regularly from various States/UTs for installation of systems like, solar home lights, solar street lights, solar lanterns, solar pumps and solar power plants having capacity up to 100 kWp. The State/UT wise detail of funds released each of the last three years and current year is given at Annexure-C.

The wind power development is taking place with private sector investment, for which proposals are not to be submitted in the Ministry. The GBI claims of developers are settled by Indian Renewable Energy Development Agency (IREDA) and as such no proposals are received in the Ministry from States/UTs.

(d): Currently, there is no general scheme for subsidy for grid solar power programme. However, a scheme for tail-end grid solar power plants with limited coverage launched during 11th plan period had provision for 50 % capital subsidy on the installed cost of the plant. The central financial assistance disbursed under that scheme, state-wise and year-wise is at Annexure-D. Some other schemes, again with limited capacities like bundling of solar & thermal power or VGF have provided incentives to the developers in different ways.

Under Off-grid and Decentralized Solar Applications Scheme of JNNSM, the Ministry provides capital subsidy of 30 % ranging from Rs. 30/- to Rs.135/- per Wp capacity solar PV systems/power plants depending upon their configurations and capacities to various categories of the beneficiaries. In special category States and North East the subsidy is 90% ranging from Rs. 90/- to 405/- per wp. However, 90% subsidy will be available to Government Institutions like schools, colleges, hospitals, panchayat ghar, police stations etc.

Regarding Wind Energy, the expenditure under GBI scheme in last three years and current year is given below:-

Year Expenditure (Rs. In crore)

2010-11	25.00
2011-12	21.18
2012-13	44.46
2013-14	224.56

(e): The Government has specified the minimum technical standards for the solar panels to be used in the solar power programme of MNRE. There is no proposal to grade the solar panel equipment available in the market by developing any system other than the accepted standards.