

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA

UNSTARRED QUESTION NO. 2628

TO BE ANSWERED ON 01.12.2016

WIND AND SOLAR POWER

2628. SHRI C. MAHENDRAN:

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

- (a) whether the wind and solar power in the coming years will form a sizable part of generation feeding the grid in the country;
- (b) if so, the details thereof;
- (c) whether the renewable energy sources in the country are concentrated in few States;
- (d) if so, the details thereof, State-wise;
- (e) whether other States are not interested in renewable energy sources; and
- (f) if so, the details thereof and the reasons therefor along with the steps being taken by the Union Government in this regard?

ANSWER

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

(a) & (b): The target of grid connected solar and wind power has been up-scaled to 1,00,000 MW and 60,000 MW respectively by 2022.

(c) & (d): The potential of renewable energy sources is available all over the country and tapping of resource specific renewable energy depends on the region and local conditions that vary widely. State-wise and source-wise details of the estimated potential available in the country is given in Annexure-I.

(e) & (f): The states are taking interest for the promotion of power from various Renewable Energy sources. The Ministry of New and Renewable Energy is implementing its programmes / schemes in all the states of the country. The State-wise details of Grid Interactive Renewable Power installed capacity, as on 31-10-2016, is given in Annexure-II.

Further, steps taken by Government for promoting renewable energy sources in the country includes:

- Up-scaling of the target of renewable energy capacity to 175 GW by the year 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power
- amendments in the Tariff Policy for strong enforcement of Renewable Purchase Obligation (RPO) and for providing Renewable Generation Obligation (RGO);
- setting up of exclusive solar parks;
- development of power transmission network through Green Energy Corridor project;
- identification of large government complexes/ buildings for rooftop projects;
- provision of roof top solar and 10 percent renewable energy as mandatory under Mission Statement and Guidelines for development of smart cities;
- amendments in building bye-laws for mandatory provision of roof top solar for new construction or higher Floor Area Ratio (FAR);
- infrastructure status for solar projects;
- raising tax free solar bonds;
- making roof top solar a part of housing loan by banks/NHB;
- incorporating measures in Integrated Power Development Scheme (IPDS) for encouraging distribution companies and making net-metering compulsory
- raising funds from bilateral and international donors as also from the Green Climate Fund to achieve the target. and
creation of Surya Mitras for installation and maintenance of the Solar Projects.

Statement referred to in reply to parts (c) & (d) of Lok Sabha Unstarred Question No. 2628 for 1/12/2016 regarding ' Wind and Solar power'

State-wise & source-wise estimated potential of Renewable Energy.

Sl. No.	STATES / Uts	Wind Power (MW) @ 100m	Small Hydro Power (MW)	Bio-Energy			Solar (MW)	Total (MW)
				Biomass Power (MW)	Bagase Cogeneration (MW)	Waste To Energy (MW)		
1	Andhra Pradesh	44229	978	578	300	123	38440	84648
2	Arunachal Pradesh		1341	8			8650	10000
3	Assam		239	212		8	13760	14218
4	Bihar		223	619	300	73	11200	12415
5	Chhattisgarh	77	1107	236		24	18270	19714
6	Goa	1	7	26			880	913
7	Gujarat	84431	202	1221	350	112	35770	122086
8	Haryana		110	1333	350	24	4560	6377
9	Himachal Pradesh		2398	142		2	33840	36382
10	Jammu & Kashmir		1431	43			111050	112523
11	Jharkhand		209	90		10	18180	18489
12	Karnataka	55857	4141	1131	450		24700	86279
13	Kerala	1700	704	1044		36	6110	9595
14	Madhya Pradesh	10484	820	1364		78	61660	74406
15	Maharashtra	45394	794	1887	1250	287	64320	113933
16	Manipur		109	13		2	10630	10755
17	Meghalaya		230	11		2	5860	6103
18	Mizoram		169	1		2	9090	9261
19	Nagaland		197	10			7290	7497
20	Odissa	3093	295	246		22	25780	29437
21	Punjab		441	3172	300	45	2810	6768
22	Rajasthan	18770	57	1039		62	142310	162238
23	Sikkim		267	2			4940	5209
24	Tamil Nadu	33800	660	1070	450	151	17670	53800
25	Telangana	4244					20410	24654
26	Tripura		47	3		2	2080	2131
27	Uttar Pradesh		461	1617	1250	176	22830	26333
28	Uttarakhandl		1708	24		5	16800	18537
29	West Bengal	2	396	396		148	6260	7202
30	Andaman & Nicobar Islands	8	8				0	16
31	Chandigarh					6	0	6
32	Dadra & Nagar Haveli						0	0
33	Daman & Diu						0	0
34	Delhi					131	2050	2181
35	Lakshwadeep	8					0	8
36	Pondicherry	153				3	0	156
37	Others					1022	790	1812
	Total	302251	19749	17536	5000	2554	748990	1096081

Statement referred to in reply to parts (e) & (f) of Lok Sabha Unstarred Question No. 2628 for 1/12/2016 regarding ' Wind and Solar Power'

State-wise installed capacity of Grid Interactive Renewable Power as on 31.10.2016.							
S. No.	STATES / Uts	Small Hydro Power	Wind Power	Bio-Power		Solar Power	Total Capacity
				BM Power & Cogeneration	Waste to Energy		
		(MW)	(MW)	(MW)	(MW)	(MW)	(MW)
1	Andhra Pradesh	232.98	2001.75	380.75	58.16	968.05	3641.69
2	Arunachal Pradesh	104.61				0.27	104.87
3	Assam	34.11				10.00	44.11
4	Bihar	70.70		43.42		95.10	209.22
5	Chhattisgarh	76.00		279.90		128.56	484.46
6	Goa	0.05				0.00	0.05
7	Gujarat	16.60	4269.86	56.30		1138.19	5480.95
8	Haryana	73.50		45.30		17.39	136.19
9	Himachal Pradesh	798.81				0.20	799.01
10	Jammu & Kashmir	156.53				1.00	157.53
11	Jharkhand	4.05				16.84	20.89
12	Karnataka	1220.73	3099.45	887.18	1.00	340.08	5548.44
13	Kerala	205.02	43.50			13.05	261.57
14	Madhya Pradesh	86.16	2288.60	35.00	3.90	811.38	3225.04
15	Maharashtra	346.18	4664.40	1245.78	12.72	386.06	6655.14
16	Manipur	5.45				0.00	5.45
17	Meghalaya	31.03				0.00	31.03
18	Mizoram	41.47				0.10	41.57
19	Nagaland	30.67				0.00	30.67
20	Odisha	64.63		20.00		66.92	151.55
21	Punjab	170.90		155.50	9.25	571.2	906.85
22	Rajasthan	23.85	4123.35	113.30		1301.16	5561.66
23	Sikkim	52.11				0.00	52.11
24	Tamil Nadu	123.05	7685.81	641.90	8.05	1555.41	10014.22
25	Telangana		98.70			963.79	1062.49
26	Tripura	16.01				5.00	21.01
27	Uttar Pradesh	25.10		876.00	5.00	143.50	1049.60
28	Uttarakhand	209.33		76.00		41.15	326.48
29	West Bengal	98.50		26.00		11.77	136.27
30	Andaman & Nicobar Islands	5.25				5.10	10.35
31	Chandigarh					6.81	6.81
32	Dadra & Nagar Haveli					0.00	0.00
33	Daman & Diu					4	4.00
34	Delhi				16.00	23.87	39.87
35	Lakshwadeep					0.75	0.75
36	Pondicherry					0.03	0.03
37	Others		4.30			100.92	105.22
	Total (MW)	4323.37	28279.72	4882.33	114.08	8727.64	46327.13

MW = Megawatt