

Wind power energy projects

3362. SHRI Y.S. CHOWDARY : Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state :

- (a) whether Government has identified the locations for wind power energy projects across the country;
- (b) if so, the details thereof, State-wise;
- (c) the details of total wind power energy potential available across the country;
- (d) the details of funds earmarked/released for the implementation of wind power energy projects, State-wise; and
- (e) whether there is any time-frame fixed for implementation of these projects?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH) : (a) Suitable sites for wind power energy projects are identified in the Indian Wind Atlas and wind monitoring data. The Ministry has established 653 wind monitoring stations in the country through Centre for Wind Energy Technology (C-WET), Chennai for carrying out wind resource assessment. The wind data of these locations is available with C-WET and is used by developers for setting up of wind power projects.

(b) The State-wise details of wind monitoring stations are given in Statement-I (*See below*).

(c) As per an estimation done by the Centre for Wind Energy Technology (C-WET), Chennai, the wind power potential in the country is estimated at 49,130 MW at a height of 50 m. The State/UT-wise details are given in Statement-II (*See below*).

(d) The Ministry provides funds only for Generation based Incentive (GBI) for wind power energy projects through the Indian Renewable Energy Development Agency (IREDA). The funds released for GBI during 2010-11 and 2011-12 are Rs. 25.00 crore and Rs. 21.18 crore respectively.

(e) Wind Power Installations are taken up in commercial mode with private sector investment under the policies of respective State Governments.

Statement I*State-wise wind monitoring stations*

Sl.No.	State/Union Territory	Total No. of wind monitoring stations Established (MNRE)
1	2	3
1.	Tamil Nadu	68
2.	Gujarat	69
3.	Orissa	9
4.	Maharashtra	112
5.	Andhra Pradesh	78
6.	Rajasthan	36
7.	Lakshadweep	9
8.	Karnataka	49
9.	Kerala	27
10.	Chhattisgarh	7
11.	Madhya Pradesh	37
12.	Andaman and Nicobar Islands	19
13.	Uttarakhand	11
14.	Himachal Pradesh	6
15.	West Bengal	10
16.	Pondicherry	4
17.	Punjab	10
18.	Jammu and Kashmir	24
19.	Haryana	6
20.	Jharkhand	3
21.	Uttar Pradesh	11
22.	Goa	4
23.	Bihar	5
24.	Arunachal Pradesh	6

1	2	3
25.	Assam	6
26.	Tripura	5
27.	Manipur	8
28.	Mizoram	4
29.	Sikkim	4
30.	Nagaland	3
31.	Meghalaya	3
TOTAL :		653

Statement II*State-wise wind power potential*

States/UTs	Installable Potential (MW)
1	2
Andhra Pradesh	5394
Gujarat	10609
Karnataka	8591
Kerala	790
Madhya Pradesh	920
Maharashtra	5439
Rajasthan	5005
Tamil Nadu	5374
West Bengal*	22
Orissa	910
Andaman and Nicobar	2
Arunachal Pradesh*	201
Assam*	53
Chhattisgarh*	23
Himachal Pradesh*	20
Jammu and Kashmir*	5311

1	2
Lakshadweep	16
Manipur*	7
Meghalaya*	44
Nagaland*	3
Sikkim*	98
Uttarakhand*	161
Uttar Pradesh*	137
TOTAL :	49130

*Wind potential has yet to be validated with measurements.

Potential of power generation from renewable sources

3363. SHRI JESUDASU SEELAM : Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state :

(a) the estimated potential of power generation in the country from wind, small hydel, solar and biomass sources;

(b) what is the present installed capacity in the country from various energy sources; and

(c) whether adequate measures have been taken including the increase in share of renewable energy to generate power in tune with India's power potential?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH) : (a) As per various studies undertaken in the past, a potential of about 90,000 MW for power generation from wind, small hydel and biomass sources has been estimated for the country in the medium term (up to 2032). The potential for solar energy has been estimated for most parts of the country at around 30-50 MW per square kilometer of open, shadow free area covered with solar collectors. Resource-wise details are given in Statement (*See below*).

(b) A total power generation capacity of 2,00,037 from various energy sources has been installed in the country as on 31.03.2012, as per the following break-up.

Thermal (Coal/Gas/Oil)	:	1,31,353 MW
Large Hydro	:	38,990 MW
Nuclear	:	4,780 MW
Renewable	:	24,914 MW
		2,00,037 MW