

1	2	3	4	5	6	7
17.	Ranga Reddy	80	400	300	427	334
18.	Srikakulam	750	900	1225.	1225	1250
19.	Visakhapatnam	369	459	603	756	900
20.	Vizianagaram	500	600	540	702	702
21.	Warangal	303	520	402	252	702
22.	West Godawari	250	400	150	603	801
23.	Kadapa	1	0	0	0	0
24.	East Godawari	0	5	0	0	0
TOTAL:		10725	10827	13699	16146	15046

#### Renewable purchase obligation targets

2584. SHRI N.K. SINGH: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the details of the Renewable Purchase Obligations (RPO) targets in India for the last three years, as on 2012, State-wise;

(b) the details of the power sourced under RPO, State-wise; and

(c) the measures being proposed by Government to increase the percentage of electricity generated from renewable sources from 5 per cent in 2009-10 by 1 per cent every year to reach 15 per cent by 2019-20, as envisioned in the National Action Plan on Climate Change (NAPCC)?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) The Electricity Act, 2003 mandates State Electricity Regulatory Commissions (SERCs) to specify a percentage of total power consumed by the obligated entities from renewable energy in the respective States and also ensure compliance. RPO targets as specified by the respective SERCs for last three years, as on 2012 are given in the Statement-I (*See* below).

According to Central Electricity Authority's estimates the share of electricity generated from renewable energy sources, including small hydro upto 25 MW capacity,

in the total electricity mix in 2011-12 and during the period April-August 2012 was 5.52 per cent and 7 per cent respectively. State-wise break up of electricity generated from renewable energy sources during the period April-August 2012 is given in the Statement-II (*See below*).

(c) The measures for promoting renewable energy sources based power generation include regulatory interventions by SERCs such as determination of preferential tariffs, specifying Renewable Purchase Obligation (RPO), facilitating grid integration and market based Renewable Energy Certificate mechanism. Besides, Government of India has been providing fiscal and financial incentives for setting up renewable energy sources based power generation systems and quantum and type of incentive depends upon area, capacity, renewable energy technology, and category of beneficiary etc.

***Statement-I***

*State-wise renewable purchase obligation (in percentage)*

Sl. No.	Name of the States/UTs	2010-11	2011-12	2012-13
1	2	3	4	5
1.	Andhra Pradesh	5.00%	5.00%	5.00%
2.	Arunachal Pradesh			4.20%
3.	Assam	1.40%	2.80%	4.20%
4.	Bihar	1.50%	2.50%	4%
5.	Chhattisgarh	5%	5.25%	5.75%
6.	Delhi	2.00%	3.40%	4.80%
7.	Goa and UTs	1%	2%	3%
8.	Gujarat	5%	6%	7%
9.	Haryana	1.50%	2%	2%
10.	Himachal Pradesh		10.01%	10.25%
11.	Jammu and Kashmir	1%	3%	5%
12.	Jharkhand	2%	3%	4%

1	2	3	4	5
13.	Karnataka*	10.25%; 7.25% and 5%	10.25%; 7.25% and 5%	10.25%; 7.25% and 5%
14.	Kerala	3.00%	3.30%	3.63%
15.	Madhya Pradesh	0.80%	2.50%	4%
16.	Maharashtra	6.00%	7.00%	8.00%
17.	Manipur	2%	3%	5%
18.	Meghalaya	0.50%	0.75%	1%
19.	Mizoram	5%	6%	7%
20.	Nagaland	6%	7%	8%
21.	Odisha	4.50%	5.00%	5.50%
22.	Punjab	2.40%	2.90%	3.50%
23.	Rajasthan		6.00%	7.10%
24.	Tamil Nadu		9%	
25.	Tripura	1%	1%	2%
26.	Uttar Pradesh	4.00%	5.00%	6.00%
27.	Uttarakhand	9%	10%	
28.	West Bengal	2%	3%	4%

\*10.25% for BESCOM, MESCOM and CESC; and 7.25% for HESCOM, GESCOM and HUKERI RECS and 5% for captive users.

#### Statement-II

*State-wise break up of electricity generated from renewable energy sources during the period April-August, 2012 (All figures in MU)*

Sl. No.	State	Wind	Solar	Biomass	Bagasse	Small hydel	Others	Total
1	2	3	4	5	6	7	8	9
1.	Andhra Pradesh	210.08	35.72	189.6	63.2	20.76	32.81	552.17

1	2	3	4	5	6	7	8	9
2.	Arunachal Pradesh	0	0	0	0	1.057	0	1.057
3.	Assam	0	0	0	0	0	0	0
4.	Bihar	0	0	0	27.651	21.057	0	48.708
5.	Chhattisgarh	0	0	0	0	1.72	0	1.72
6.	Delhi	0	1.924	0	0	0	30.32	32.244
7.	Gujarat	3375.328	400.196	26.705	0	16.04	0	3818.269
8.	Haryana	0	0	0	0	25.304	0	25.304
9.	Himachal Pradesh	0	0	0	0	0	0	0
10.	Jammu and Kashmir	0	0	0	0	0	0	0
11.	Karnataka	2465.092	5.307	100.428	548.767	484.16	0	3603.754
12.	Kerala	47.859	0	0	21.209	194.085	0	263.153
13.	Madhya Pradesh	293.42	1.38	5.53	0	60.47	2.28	363.08
14.	Maharashtra	2792.477	0	0	0	72.66	0	2865.137
15.	Manipur	0	0	0	0	0	0	0
16.	Meghalaya	0	0	0	0	0	0	0
17.	Nagaland	0	0	0	0	0	0	0
18.	Odisha	0	5.372	23.074	0	62.206	0	90.651
19.	Punjab	0	0	0	0	0	0	0
20.	Rajasthan	2107.46	72.98	128.945	0	1.81	0	2311.195
21.	Tamil Nadu	7617.29	10.699	278.28	843.16	0	0	8749.429
22.	Tripura	0	0	0	0	0	0	0
23.	Uttar Pradesh	0	5.628	28.887	681.008	10.739	17.836	744.098
24.	Uttarakhand	0	0	0	0	52.2	0	52.2

1	2	3	4	5	6	7	8	9
25.	West Bengal	0	0	0	0	0	0	0
26.	DVC*	0	0	0	0	35.575	0	35.575
TOTAL:		18909.01	539.205	781.449	2184.995	1059.842	83.246	23557.74

\*Damodar Vally Corporation

(Source: Central Electricity Authority: "Monthly Generation Report (Renewable Energy Sources) 2012-13 (August, 12)":— Online at [http://www.cea.nic.in/reports/articles/god/renewable\\_energy.pdf](http://www.cea.nic.in/reports/articles/god/renewable_energy.pdf).)

### Penalties for RPO default

2585. SHRIMATI VASANTHI STANLEY: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the number of States that failed to meet the Renewable Purchase Obligations (RPOs) for 2011-12;
- (b) whether penalties are being imposed on non-compliant entities;
- (c) if so, the details thereof;
- (d) whether Government is planning to make any amendments to the Electricity Act, 2003 for making RPO legally binding and thereby ensuring compliance;
- (e) whether any alternative measures are being taken to encourage compliance; and
- (f) if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) to (f) The Electricity Act, 2003 mandates State Electricity Regulatory Commissions (SERCs) to specify a percentage of total power consumed by the obligated entities from renewable energy in their States and also ensure compliance. However, as per available information during 2011-12, the states of Himachal Pradesh, Karnataka, Tamil Nadu and Tripura achieved non-solar Renewable Purchase Obligation (RPO).

Further, the Forum of Regulators (A forum comprising of Chairperson of the Central Electricity Regulatory Commission and Chairpersons of the State Electricity Regulatory