350	Written Answ	ers to	[RAJYA SABI	HA] Unstarre	Unstarred Questions	
1	2	3	4	5	6	
9.	Andhra Pradesh		A.P.	Ananthapuramu-II Solar Park	250	
11.	Karnataka		Karnataka	Anywhere in State	640	
12.	Karnataka		Karnataka	Pavagada Solar Park	550	
13.	Tamil Nadu		T.N.	Anywhere in State	1345	
14.	Maharashtra		Maharashtra	Anywhere in State	200	
15.	Maharashtra		Maharashtra	Anywhere in State	150	
16.	Maharashtra		Maharashtra	Anywhere in State	50	
17.	Gujarat		Gujarat	Anywhere in State	345	
18.	West Bengal		W.B.		5	
19.	Karnataka		Karnataka	Pavagada Solar Park	500	
20.	Maharashtra		MH	Anywhere in State	235	
21.	Maharashtra		MH	Anywhere in State	1000	
22.	Maharashtra		MH	Anywhere in State	200	
23.	Maharashtra		MH	Anywhere in State	102	
24.	Karnataka		KA(SP)	SP	150	
25.	Karnataka		Karnataka	NSP	100	
26.	Karnataka		Karnataka	NSP	100	
27.	Odisha		Odisha	Anywhere in State	75	
28.	UP		U.P.	Anywhere in State	500	
29.	UP		U.P.	Anywhere in State	550	
	Total				12994	

## Installed capacity of various renewable modes of energy

1069. DR. K. V. P. RAMACHANDRA RAO: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the present installed capacity of various types of renewable energy in the country;

- (b) the installed capacity of solar, bio, wind and small hydro power projects, State-wise; and
- (c) the amount released to States for taking up schemes under renewable energy programme?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI RAJ KUMAR SINGH): (a) and (b) A total of 74.79 GW of renewable energy capacity has been installed in the country as on 31/12/2018 which includes 25.21 GW from Solar, 35.14 GW from Wind, 9.92 GW from Biopower and 4.52 GW from Small Hydro Power. The State-wise and source-wise installed capacity through various renewable energy sources is given in the Statement-I (*See* below).

(c) The State-wise details of amount released in the form of Central Financial Assistance (CFA) during 2018-19 (upto 5/2/2019) under various renewable energy schemes/programmes of the Ministry of New and Renewable Energy in the country are given in the Statement-II.

State-wise installed capacity of Grid Interactive Renewable Power as on 31.12.2018

S1. 1	No. States/UTs	Small Hydro Power	Wind Power	Bio Power	Solar Power	Total Capacity
		(MW)	(MW)	(MW)	(MW)	(MW)
1	2	3	4	5	6	7
1.	Andhra Pradesh	162.11	4076.45	500.34	2641.76	7380.66
2.	Arunachal Pradesh	107.100			5.39	112.49
3.	Assam	34.11			16.68	50.79
4.	Bihar	70.70		121.20	142.45	334.35
5.	Chhattisgarh	76.00		230.50	231.35	537.85
6.	Goa	0.05			1.69	1.74
7.	Gujarat	35.10	5955.07	77.30	1827.38	7894.85
8.	Haryana	73.50		205.66	217.09	496.25
9.	Himachal Pradesh	860.61		7.20	3.89	871.70

352	Written Answers to	[RAJY	'A SABHA]		Unstarred	Questions
1	2	3	4	5	6	7
10.	Jammu and Kashmir	179.03			9.85	188.88
11.	Jharkhand	4.05		4.30	32.41	40.76
12.	Karnataka	1230.73	4682.80	1799.80	5255.11	12968.44
13.	Kerala	222.02	52.50	0.72	138.49	413.73
14.	Madhya Pradesh	95.91	2519.890	120.75	1586.25	4322.80
15.	Maharashtra	375.570	4788.13	2528.69	1607.79	9300.18
16.	Manipur	5.45			2.59	8.04
17.	Meghalaya	31.03		13.80	0.08	44.91
18.	Mizoram	36.47			0.20	36.67
19.	Nagaland	30.67			1.00	31.67
20.	Odisha	64.625		59.22	389.40	513.25
21.	Punjab	173.55		326.35	905.62	1405.52
22.	Rajasthan	23.85	4299.72	121.30	3130.99	7575.86
23.	Sikkim	52.11			0.01	52.12
24.	Tamil Nadu	123.05	8631.19	1003.88	2228.44	11986.56
25.	Telangana	90.87	128.10	177.60	3410.26	3806.83
26.	Tripura	16.01			5.09	21.10
27.	Uttar Pradesh	25.10		2117.51	891.01	3033.62
28.	Uttarakhand	214.320		130.50	303.18	648.00
29.	West Bengal	98.50		319.92	42.32	460.74
30.	Andaman and Nicobar Islands	5.25			6.56	11.81
31.	Chandigarh				32.40	32.40
32.	Dadra and Nagar Haveli				5.46	5.46
33.	Daman and Diu				13.38	13.38
34.	Delhi			52.00	124.21	176.21
35.	Lakshadweep				0.75	0.75
36.	Puducherry				1.73	1.73
37.	Others		4.30			4.30
	Total (MW)	4517.445	35138.150	9918.54	25212.26	74786.40

Statement-II

Details showing State-wise amount provided as Central Financial Assistance (CFA) for the promotion of various renewable energy schemes during 2018-19

(As on 5.2.2019)

Sl. No	o. State/UT Name	Total Amount released during 2018-19 (in lakhs)
1	2	3
1.	Maharashtra	9867.34
2.	Telangana	9895.53
3.	Jammu And Kashmir	7141.85
4.	Punjab	2598.15
5.	Rajasthan	5108.98
6.	Kerala	658.47
7.	International Relation-International Corporation Including Investment	n 55.58
8.	Arunachal Pradesh	493.56
9.	Meghalaya	38.22
10.	Uttarakhand	9.02
11.	West Bengal	426
12.	Gujarat	27769
13.	Haryana	1644.87
14.	Odisha	47
15.	Tamil Nadu	5280.72
16.	Chandigarh	1875.56
17.	Central Agency Cireda, SECI Etc.	232153.09
18.	Jharkhand	99.18
19.	Uttar Pradesh	3432.21
20.	Karnataka	8512.43
21.	Chhattisgarh	9526.4
22.	Delhi	2318.05

Written Answers to	[RAJYA SABHA] Unsta	rred Questions
2	3	
Andhra Pradesh	13023.1	9
Assam	19.7	6
Bihar	525.9	4
Himachal Pradesh	8382.4	8
Puducherry	10.4	1
Madhya Pradesh	7495.5	6
Total	358408.5	4
	2 Andhra Pradesh Assam Bihar Himachal Pradesh Puducherry Madhya Pradesh	2       3         Andhra Pradesh       13023.19         Assam       19.70         Bihar       525.90         Himachal Pradesh       8382.40         Puducherry       10.40         Madhya Pradesh       7495.50

## Floating solar plants in India

1070. SHRI V. VIJAYASAI REDDY: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether Ministry has studied the new concept of "floating solar plants" in the country, the first one being set up in Banasura Sagar Reservoir in Kerala;
- (b) whether it is a fact that Government is mandating CPSUs to invest in solar power, if possible, on floating solar plants;
- (c) the advantages of floating solar plants and in what manner can they be compared with conventional solar farms; and
- (d) whether Government has carried out any study of how floating solar farms are working in China and Japan?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI RAJ KUMAR SINGH): (a) Setting floating solar plants is one of the focus areas of the Ministry of New and Renewable Energy (MNRE) and MNRE is actively involved in promoting setting up of floating solar photovoltaic (PV) power plants through Solar Energy Corporation of India Limited (SECI), a Public Sector Enterprise under MNRE.

(b) Though Central Public Sector Undertakings (CPSUs) have not been specifically mandated to invest in floating solar plants, CPSUs like Solar Energy Corporation of India Limited (SECI), NTPC Limited and NLC India Limited are involved in development of floating solar power projects.