

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 1062
TO BE ANSWERED ON 27.06.2019

POWER GENERATION THROUGH RENEWABLE ENERGY SOURCES

1062. SHRI AJAY NISHAD

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

- (a) the details of power generated through renewable energy sources in the country during each of the last three years, source and State-wise;
- (b) the quantum of funds allocated and sanctioned to State Governments for power generation through these sources during the said period along with the expenditure incurred by the Union Government, Public Sector Enterprises and Private Sector for the said purpose;
- (c) the details of percentage of funds utilised by the State Governments to develop these sources during the said period, State-wise;
- (d) whether several State Governments have not utilised the funds sanctioned by the Union Government to develop these sources;
- (e) if so, the details thereof and the reasons therefor along with the steps taken by the Union Government thereto; and
- (f) the other steps taken or proposes to be taken by the Union Government to develop these sources in the country?

ANSWER

THE MINISTER OF STATE (I/C) FOR NEW & RENEWABLE ENERGY AND POWER
(SHRI R. K. SINGH)

- (a) The state-wise and source-wise details of the power generated through renewable energy sources in the country during each of the last three years are given in **Annexure I**.
- (b) Central Financial Assistance released to various states and public sector undertakings for implementation of various renewable energy projects during the last three years (2016-17 to 2018-19) is given in statement at **Annexure-II**.
- (c) to (e) The states /nodal agencies are mostly utilizing the released funds for implementation of various renewable energy projects. If the funds are not fully utilized in any case for any reason, further releases are made only after getting Utilization Certificate. In some cases pace of utilization of funds is slow mainly due to delays in identification of the beneficiaries, getting statutory clearances from different organizations, and in finalization of tenders, arranging loans/state's share and in some cases natural calamities etc.

To ensure proper utilization of the funds, MNRE obtains periodic physical & financial progress reports, utilization certificates & audited statements of expenditure. Periodic review meetings are held with the State Departments/State Nodal Agencies and other Stakeholders for timely utilization of funds. Periodic inspection and reviews are also undertaken by the Ministry.

(f) The steps taken by the Government for development of renewable energy sources in the country inter alia, include the following:-

- Announcement of a target of installing 175 GW of renewable energy capacity by March, 2022;
- Waiver of Inter State Transmission System (ISTS) charges and losses for inter-state sale of solar and wind power for projects to be commissioned up to March, 2022.
- Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route.
- Notification of standard bidding guidelines to enable distribution licensee to procure solar and wind power at competitive rates in cost effective manner.
- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2022.
- Implementation of Green Energy Corridor project to facilitate grid integration of large scale renewable energy capacity addition.
- Notified National Offshore Wind Energy Policy;
- Notified standards for deployment of solar photovoltaic systems/devices and
- Launched AtalJyotiYojna for Solar LED street lights in five states.
- Launched New scheme for farmers and SRISTI scheme.

Annexure-I

ANNEXURE-I REFERRED TO IN REPLY TO LOK SABHA UNSTARRED QUESTION NO.1062, Part
(a) TO BE ANSWERED ON 27/6/2019

GENERATION from Various Renewable Energy Sources for the Year 2016 – 17								
								(All figures in MU)
Sl. No.	State/Utility	Wind	Solar	Biomass	Bagasse	Small Hydro	Others	Total
1	Chandigarh	0.00	13.16	0.00	0.00	0.00	0.00	13.16
2	Delhi	0.00	5.68	0.00	0.00	0.00	139.05	144.73
3	Haryana	0.00	19.70	184.66	6.38	238.80	0.00	449.54
4	HP	0.00	0.00	0.00	0.00	2015.58	0.00	2015.58
5	J & K	0.00	0.77	0.00	0.00	325.36	0.00	326.12
6	Punjab	0.00	909.20	528.17	214.14	497.99	0.00	2149.49
7	Rajasthan	5562.52	2131.61	272.97	0.00	6.76	0.00	7973.85
8	Uttar Pradesh	0.00	230.95	165.39	3214.09	27.83	0.00	3638.26
9	Uttarakhand	0.00	37.77	0.00	110.92	850.50	0.00	999.19
10	NTPC (Dadri, Faridabad, Unchahar, Singrauli & Bhadla)	0.00	74.90	0.00	0.00	0.00	0.00	74.90
11	Oil India Ltd	201.61	25.59	0.00	0.00	0.00	0.00	227.20
12	Chhattisgarh	0.00	120.91	1281.10	0.00	44.21	0.00	1446.22
13	NTPC (Rajgarh)	0.00	82.21	0.00	0.00	0.00	0.00	82.21
14	Gujarat	7720.01	1738.28	12.16	0.00	27.54	0.00	9497.99
15	Madhya Pradesh	3563.17	1366.10	86.59	1.82	224.46	26.53	5268.67
16	Maharashtra	7490.75	577.83	573.58	2040.76	609.58	0.20	11292.70
17	Dadra and Nagar Haveli	0.00	1.31	0.00	0.00	0.00	0.00	1.31
18	Daman & Diu	0.00	14.43	0.00	0.00	0.00	0.00	14.43
19	Andhra Pradesh	3187.85	1599.78	350.24	169.74	168.75	6.90	5483.26
20	Telangana	211.93	1337.90	176.01	180.93	52.62	40.48	1999.89
21	Karnataka	6058.65	524.67	157.50	1550.61	1294.25	0.00	9585.68
22	Kerala	72.59	26.52	1.23	0.00	462.38	0.00	562.72
23	NTPC(Ramagundem & Anantapuram)	0.00	350.53	0.00	0.00	0.00	0.00	350.53
24	Tamil Nadu	11935.26	1898.34	349.14	877.34	93.79	0.00	15153.87
25	Lakshadweep	0.00	1.59	0.00	0.00	0.00	0.00	1.59
26	Puducherry	0.00	0.34	0.00	0.00	0.00	0.00	0.34
27	Andaman & Nicobar	0.00	6.17	0.00	0.00	13.86	0.00	20.03
28	Bihar	0.00	109.18	1.72	159.66	21.96	0.00	292.53
29	Jharkhand	0.00	38.47	0.00	0.00	0.00	0.00	38.47
30	Odisha	0.00	210.81	57.85	0.00	239.05	0.00	507.71
31	Sikkim	0.00	0.00	0.00	0.00	35.78	0.00	35.78
32	West Bengal	0.00	14.96	0.00	1433.95	120.86	0.00	1569.77
33	DVC	0.00	0.01	0.00	0.00	14.08	0.00	14.09
34	NTPC (Andaman & Talcher)	0.00	20.00	0.00	0.00	0.00	0.00	20.00
35	Arunachal Pradesh	0.00	0.14	0.00	0.00	27.29	0.00	27.43
36	Assam	0.00	2.69	0.00	0.00	11.47	0.00	14.15
37	Manipur	0.00	0.01	0.00	0.00	0.00	0.00	0.01

38	Meghalaya	0.00	0.00	0.00	0.00	59.10	0.00	59.10
39	Mizoram	0.00	0.00	0.00	0.00	49.62	0.00	49.62
40	Nagaland	0.00	0.00	0.00	0.00	92.73	0.00	92.73
41	Tripura	0.00	0.00	0.00	0.00	46.47	0.00	46.47
42	NEEPCO	0.00	6.89	0.00	0.00	0.00	0.00	6.89
	Total	46004.34	13499.41	4198.30	9960.34	7672.66	213.16	81548.21

Generation from Various Renewable Energy Sources for the Year 2017 – 18

							(All figures in MU)	
Sl. No.	State/Utility	Wind	Solar	Biomass	Bagasse	Small Hydro	Other s	Total
1	Chandigarh	0.00	7.87	0.00	0.00	0.00	0.00	7.87
2	Delhi	0.00	13.41	0.00	0.00	0.00	227.68	241.09
3	Haryana	0.00	64.65	195.66	90.10	210.29	0.00	560.70
4	HP	0.00	0.00	0.00	0.00	1903.05	0.00	1903.05
5	J & K	0.00	0.00	0.00	0.00	324.37	0.00	324.37
6	Punjab	0.00	1432.07	489.68	204.50	217.62	0.00	2343.87
7	Rajasthan	5665.45	3469.25	340.84	0.00	8.69	0.00	9484.23
8	Uttar Pradesh	0.00	637.02	129.30	3809.79	30.18	0.00	4606.29
9	Uttarakhand .	0.00	291.08	0.00	143.81	749.61	0.00	1184.50
10	NTPC (Dadri, Faridabad, Unchahar Singrauli & Bhadla)	0.00	480.99	0.00	0.00	0.00	0.00	480.99
11	Oil India Ltd	225.79	25.46	0.00	0.00	0.00	0.00	251.25
12	Chhattisgarh	0.00	136.54	909.72	0.00	22.94	0.00	1069.21
13	NTPC(Rajgarh, Rojmal & Mandsaur)	41.86	340.13	0.00	0.00	0.00	0.00	381.99
14	Gujarat	9635.65	2048.40	32.65	0.00	42.93	0.00	11759.63
15	Madhya Pradesh	4139.84	1911.70	21.94	54.17	124.11	41.14	6292.90
16	Maharashtra	6541.35	1100.67	539.10	3228.72	627.12	0.01	12036.98
17	Dadra and Nagar Haveli	0.00	5.23	0.00	0.00	0.00	0.00	5.23
18	Daman & Diu	0.00	18.53	0.00	0.00	0.00	0.00	18.53
19	Andhra Pradesh	6354.11	3658.97	206.49	189.03	181.69	7.18	10597.47
20	Telangana	195.29	4013.80	175.48	114.02	51.27	82.43	4632.28
21	Karnataka	7410.29	2391.73	135.60	1921.96	1604.41	0.00	13463.98
22	Kerala	98.46	55.35	0.00	0.00	620.52	0.00	774.32
23	NTPC(Ramagundem & Anantapuram)	0.00	426.37	0.00	0.00	0.00	0.00	426.37
24	Tamil Nadu	12358.01	2906.01	178.33	551.39	186.14	0.00	16179.86
25	Lakshadweep	0.00	1.79	0.00	0.00	0.00	0.00	1.79
26	Puducherry	0.00	1.17	0.00	0.00	0.00	0.00	1.17
27	Andaman & Nicobar	0.00	6.88	0.00	0.00	12.77	0.00	19.65
28	Bihar	0.00	145.34	2.93	152.84	7.95	0.00	309.06
29	Jharkhand	0.00	19.47	0.00	0.00	0.00	0.00	19.47
30	Odisha	0.00	204.77	47.22	0.00	265.57	0.00	517.56
31	Sikkim	0.00	0.00	0.00	0.00	30.54	0.00	30.54
32	West Bengal	0.00	20.47	0.00	1387.01	183.05	0.00	1590.54
33	DVC	0.00	0.06	0.00	0.00	9.47	0.00	9.54

34	NTPC(Andaman & Talcher)	0.00	20.43	0.00	0.00	0.00	0.00	20.43
35	Arunachal Pradesh	0.00	0.23	0.00	0.00	0.47	0.00	0.70
36	Assam	0.00	8.36	0.00	0.00	16.13	0.00	24.49
37	Manipur	0.00	0.15	0.00	0.00	0.00	0.00	0.15
38	Meghalaya	0.00	0.00	0.00	0.00	70.56	0.00	70.56
39	Mizoram	0.00	0.00	0.00	0.00	54.67	0.00	54.67
40	Nagaland	0.00	0.00	0.00	0.00	91.00	0.00	91.00
41	Tripura	0.00	0.00	0.00	0.00	44.48	0.00	44.48
42	NEEPCO	0.00	6.71	0.00	0.00	0.00	0.00	6.71
	Total	52666.09	25871.07	3404.95	11847.35	7691.58	358.45	101839.48

Generation from Various Renewable Energy Sources for the Year 2018 – 19

							(All figures in MU)	
Sl. No.	State/Utility	Wind	Solar	Biomass	Bagasse	Small Hydro	Other s	Total
1	Chandigarh	0.00	13.51	0.00	0.00	0.00	0.00	13.51
2	Delhi	0.00	10.84	0.00	0.00	0.00	276.81	287.65
3	Haryana	0.00	65.95	192.68	146.37	250.84	0.00	655.83
4	HP	0.00	0.00	0.00	0.00	2287.93	0.00	2287.93
5	J & K	0.00	0.00	0.00	0.00	312.20	0.00	312.20
6	Punjab	0.00	1492.90	355.90	245.18	351.23	0.00	2445.21
7	Rajasthan	6322.94	4633.95	345.09	0.00	5.17	0.00	11307.15
8	Uttar Pradesh	0.00	1192.85	104.04	4324.40	19.01	0.00	5640.29
9	Uttarakhand .	0.00	318.29	0.00	109.89	676.79	0.00	1104.97
10	NTPC (Dadri, Faridabad, Unchahar Singrauli & Bhadla)	0.00	498.99	0.00	0.00	12.28	0.00	511.27
11	Oil India Ltd (Rajasthan)	80.85	25.18	0.00	0.00	0.00	0.00	106.04
12	Chhattisgarh	0.00	335.14	529.90	0.00	80.06	0.00	945.09
13	NTPC(Rajgarh, Rojmal & Mandsaur)	86.07	478.88	0.00	0.00	0.00	0.00	564.95
14	Gujarat	11199.51	2410.32	75.28	5.09	86.19	0.00	13776.39
15	Madhya Pradesh	4828.17	2503.41	2.01	110.32	145.47	51.11	7640.49
16	Maharashtra	7575.14	2206.62	445.98	3987.29	759.08	0.80	14974.91
17	Dadra and Nagar Haveli	0.00	5.76	0.00	0.00	0.00	0.00	5.76
18	Daman & Diu	0.00	18.94	0.00	0.00	0.00	0.00	18.94
19	Oil India Ltd(Madhya Pradesh & Gujrat)	241.47	0.00	0.00	0.00	0.00	0.00	241.47
20	Andhra Pradesh	8869.86	4545.80	201.86	312.45	193.12	7.27	14130.35
21	Telangana	274.83	6297.53	152.24	166.21	51.17	89.28	7031.25
22	Karnataka	9778.25	7575.83	155.02	2345.35	1803.09	0.00	21657.53
23	Kerala	107.94	110.84	0.00	0.00	551.55	0.00	770.33
24	NTPC(Ramagundem & Anantapuram)	0.00	434.89	0.00	0.00	0.00	0.00	434.89
25	Tamil Nadu	12600.85	3554.50	127.16	268.00	347.97	0.00	16898.48
26	Lakshadweep	0.00	1.12	0.00	0.00	0.00	0.00	1.12

27	Puducherry	0.00	2.58	0.00	0.00	0.00	0.00	2.58
28	Andaman & Nicobar	0.00	8.04	0.00	0.00	16.56	0.00	24.60
29	Bihar	12.28	179.89	10.59	257.63	27.74	0.00	488.14
30	Jharkhand	0.00	19.14	0.00	0.00	0.00	0.00	19.14
31	Odisha	58.23	249.13	66.08	0.00	266.10	0.00	639.55
32	Sikkim	0.00	0.00	0.00	0.00	28.10	0.00	28.10
33	West Bengal	0.00	40.61	0.00	1283.69	161.86	0.00	1486.16
34	DVC	0.00	0.06	0.00	0.81	1.76	0.00	2.63
35	NTPC(Andaman & Talcher)	0.00	19.71	0.00	0.00	0.00	0.00	19.71
36	Arunachal Pradesh	0.00	1.21	0.00	0.00	0.55	0.00	1.75
37	Assam	0.00	6.66	0.00	0.00	14.07	0.00	20.73
38	Manipur	0.00	1.88	0.00	0.00	0.00	0.00	1.88
39	Meghalaya	0.00	0.00	0.00	0.00	50.51	0.00	50.51
40	Mizoram	0.00	0.12	0.00	0.00	39.96	0.00	40.09
41	Nagaland	0.00	0.00	0.00	0.00	87.46	0.00	87.46
42	Tripura	0.00	0.00	0.00	0.00	42.98	0.00	42.98
43	NEEPCO	0.00	7.14	0.00	0.00	31.96	0.00	39.10
	Total	62036.38	39268.20	2763.82	13562.67	8702.75	425.28	126759.09

Source: Central Electricity Authority(CEA)

Annexure-II**Annexure-II referred to in reply to part (b) of Lok Sabha Unstarred Question No. 1062 for 27/6/2019 regarding 'Power Generation through Renewable Energy Sources'.**

State-wise and year-wise details of Funds released as Central Financial Assistance during last three years i.e. 2016-17 to 2018-19

(Rs in crore)

S. No.	State / UT Name	2016-17	2017-18	2018-19
1	ANDHRA PRADESH	1.92	4.96	132.86
2	ARUNACHAL PRADESH	20.08	45.16	5.94
3	ASSAM	60.28	24.86	0.20
4	BIHAR	0	0	5.26
5	CHANDIGARH	9.69	2.23	18.76
6	CHHATTISGARH	72.92	161.96	95.81
7	DADRA & NAGAR HAVELI	0	0.34	0
8	DAMAN & DIU	0	0	0
9	DELHI	166.04	311.45	228.25
10	GOA	0.17	0	0
11	GUJARAT	74.09	158.89	361.08
12	HARYANA	16.24	2.16	22.39
13	HIMACHAL PRADESH	36.39	42.30	84.13
14	JAMMU AND KASHMIR	49.67	16.12	85.84
15	JHARKHAND	12.87	5.58	0.99
16	KARNATAKA	52.42	39.54	100.93
17	KERALA	36.17	44.02	20.73
18	LAKSHADWEEP	0.46	3.97	0
19	MADHYA PRADESH	40.16	442.13	105.01
20	MAHARASHTRA	155.21	43.12	147.38
21	MANIPUR	12.53	6.65	0
22	MEGHALAYA	20.52	23.28	2.08
23	MIZORAM	22.38	21.47	7.89
24	NAGALAND	17.97	11.49	2.39
25	ODISHA	21.17	13.55	9.11
26	PUDUCHERRY	1.11	0.31	0.10
27	PUNJAB	9.19	3.42	30.04
28	RAJASTHAN	86.85	103.14	64.52
29	SIKKIM	2.87	0.18	2.74
30	TAMIL NADU	169.28	30.50	54.94
31	TELANGANA	99.19	174.62	98.96
32	TRIPURA	14.57	2.73	0.22
33	UTTAR PRADESH	28.11	36.41	37.85
34	UTTARAKHAND	41.92	43.89	0.45
35	WEST BENGAL	1.37	6.58	4.29
36	ANDAMAN AND NICOBAR	0.48	3.03	0
37	CENTRAL AGENCY (including IREDA,SECI,NISE, NIWE, NIBE, NTPC etc)	1190.92	1874.44	2683.63