

**GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.2608
ANSWERED ON 17.03.2022**

DEMAND FOR ELECTRICITY

†2608. SHRI GOPAL CHINNAYA SHETTY:

**Will the Minister of POWER
be pleased to state:**

- (a) whether the demand for electricity is increasing continuously in the country resulting in its acute shortage;**
- (b) if so, the details of demand and supply of electricity during the last three years and the current year, State-wise;**
- (c) the details of power generation from various sources during the said period, State-wise; and**
- (d) the details of the infrastructural reforms undertaken to improve the power situation along with the achievements made thereunder?**

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : There is adequate availability of electricity in the country to meet the demand. It is a fact that the demand for electricity is increasing continuously in the country, except during the period of Covid-19 pandemic. The increasing demand of power in the country is being met with commensurate increase in power generation. A generation capacity of 15,978.84 MW has been added during the year 2021-22 (up to 28.02.2022) which includes 3,825 MW of Thermal, 213 MW of Hydro (above 25 MW capacity) and 11,940.84 MW from other renewable energy. As on 28th February, 2022, the installed generation capacity is around 395.6 GW which is sufficient to meet the demand of electricity in the country. The peak demand experienced during the current year was only 203 GW.

The State-wise details of Energy Requirement and Energy Supplied during the last three years and the current year i.e. 2021-22 (period April, 2021 to February, 2022), are given at Annexure-I.

(c) : The State-wise details of Energy Generation (Thermal, Hydro & Nuclear) and generation from other Renewable Energy Sources in the country during the last three years and current year 2021-22 (upto Jan./Feb.,2022) are given at Annexure-II and Annexure-III respectively.

(d) : The details of generation capacity addition during the last three years and the current year are given at Annexure-IV. The details of the measures to improve the power production and improve the overall power situation are given at Annexure-V.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2608 ANSWERED IN THE LOK SABHA ON 17.03.2022

The State-wise details of Energy Requirement and Energy Supplied during the last three years and the current year i.e. 2021-22 (period April, 2021 to February, 2022)

State System Region	April, 2018 - March, 2019			
	Energy Requirement	Energy Supplied	Energy not Supplied	
	(MU)	(MU)	(MU)	(%)
Chandigarh	1,571	1,571	0	0.0
Delhi	32,299	32,282	17	0.1
Haryana	53,665	53,665	0	0.0
Himachal Pradesh	9,850	9,618	232	2.4
Jammu & Kashmir	18,988	15,616	3,372	17.8
Punjab	55,328	55,315	13	0.0
Rajasthan	79,815	79,626	189	0.2
Uttar Pradesh	117,133	116,149	984	0.8
Uttarakhand	13,845	13,753	92	0.7
Northern Region	382,493	377,595	4,898	1.3
Chhattisgarh	26,471	26,417	54	0.2
Gujarat	116,372	116,356	15	0.0
Madhya Pradesh	76,056	76,054	2	0.0
Maharashtra	158,295	158,157	137	0.1
Daman & Diu	2,558	2,558	0	0.0
Dadar Nagar Haveli	6,303	6,302	0	0.0
Goa	4,295	4,292	3	0.1
Western Region	390,349	390,136	212	0.1
Andhra Pradesh	63,861	63,804	58	0.1
Telangana	66,489	66,427	62	0.1
Karnataka	71,764	71,695	69	0.1
Kerala	25,016	24,898	118	0.5
Tamil Nadu	109,482	109,380	102	0.1
Puducherry	2,766	2,756	10	0.3
Lakshadweep #	46	46	0	0.0
Southern Region	339,377	338,960	417	0.1
Bihar	30,061	29,825	236	0.8
DVC	22,745	22,372	372	1.6
Jharkhand	8,737	8,490	247	2.8
Odisha	32,145	32,115	30	0.1
West Bengal	51,471	51,287	184	0.4
Sikkim	527	527	0	0.1
Andaman- Nicobar #	346	323	23	6.7
Eastern Region	145,686	144,616	1,070	0.7
Arunachal Pradesh	869	859	9	1.1
Assam	9,566	9,238	328	3.4
Manipur	905	895	10	1.2
Meghalaya	1,957	1,956	2	0.1
Mizoram	643	635	8	1.2
Nagaland	888	795	93	10.5
Tripura *	1,863	1,841	22	1.2
North-Eastern Region	16,691	16,219	472	2.8
All India	1,274,595	1,267,526	7,070	0.6

Lakshadweep and Andaman & Nicobar Islands are stand- alone systems, power supply position of these, does not form part of regional requirement and energy supplied.

* Excludes energy exported to Bangladesh.

Note: Power Supply Position Report has been compiled based on the data furnished by State Utilities/ Electricity Departments. The MU figures have been rounded off to nearest unit place.

State /	April, 2019-March, 2020			
System /	Energy Requirement	Energy Supplied	Energy not Supplied	
Region	(MU)	(MU)	(MU)	(%)
Chandigarh	1,732	1,732	0	0.0
Delhi	33,086	33,077	9	0.0
Haryana	54,505	54,492	13	0.0
Himachal Pradesh	10,424	10,353	71	0.7
UT of J&K and Ladakh	20,025	16,259	3,767	18.8
Punjab	56,776	56,770	6	0.0
Rajasthan	81,281	81,222	58	0.1
Uttar Pradesh	122,549	121,004	1,545	1.3
Uttarakhand	14,472	14,376	96	0.7
Northern Region	394,851	389,285	5,566	1.4
Chhattisgarh	30,111	30,107	4	0.0
Gujarat	113,940	113,939	1	0.0
Madhya Pradesh	76,172	76,172	0	0.0
Maharashtra	155,167	155,166	0	0.0
Daman & Diu	2,574	2,574	0	0.0
Dadar Nagar Haveli	6,528	6,528	0	0.0
Goa	4,350	4,350	0	0.0
Western Region	388,841	388,836	5	0.0
Andhra Pradesh	65,452	65,414	38	0.1
Telangana	68,306	68,303	3	0.0
Karnataka	72,799	72,796	3	0.0
Kerala	26,315	26,265	50	0.2
Tamil Nadu	108,816	108,812	4	0.0
Puducherry	2,847	2,846	1	0.0
Lakshadweep #	46	46	0	0.0
Southern Region	344,535	344,436	99	0.0
Bihar	31,627	31,533	94	0.3
DVC	22,429	22,427	2	0.0
Jharkhand	8,941	8,872	69	0.8
Odisha	29,692	29,692	0	0.0
West Bengal	52,948	52,824	124	0.2
Sikkim	554	554	0	0.0
Andaman- Nicobar #	346	323	23	6.7
Eastern Region	146,191	145,902	289	0.2
Arunachal Pradesh	753	749	4	0.5
Assam	9,804	9,288	516	5.3
Manipur	924	917	6	0.7
Meghalaya	2,112	2,064	48	2.3
Mizoram	647	643	4	0.7
Nagaland	814	809	5	0.7
Tripura *	1,538	1,515	23	1.5
North-Eastern Region	16,591	15,984	607	3.7
All India	1,291,010	1,284,444	6,566	0.5

Lakshadweep and Andaman & Nicobar Islands are stand- alone systems, power supply position of these, does not form part of regional requirement and energy supplied.

* Excludes energy exported to Bangladesh.

Note: Power Supply Position Report has been compiled based on the data furnished by State Utilities/ Electricity Departments. The MU figures have been rounded off to nearest unit place.

State/ System / Region	April, 2020 - March, 2021			
	Energy Requirement	Energy Supplied	Energy not Supplied	
	(MU)	(MU)	(MU)	(%)
Chandigarh	1,523	1,523	0	0.0
Delhi	29,560	29,555	4	0.0
Haryana	53,161	53,108	53	0.1
Himachal Pradesh	10,186	10,130	56	0.5
Jammu & Kashmir	19,773	17,222	2,551	12.9
Punjab	58,445	58,377	67	0.1
Rajasthan	85,311	85,205	106	0.1
Uttar Pradesh	124,367	123,383	984	0.8
Uttarakhand	13,827	13,818	8	0.1
Northern Region	396,151	392,323	3,829	1.0
Chhattisgarh	30,472	30,449	22	0.1
Gujarat	111,622	111,622	0	0.0
Madhya Pradesh	83,437	83,437	0	0.0
Maharashtra	150,679	150,663	16	0.0
Daman & Diu	2,223	2,223	0	0.0
Dadar Nagar Haveli	5,497	5,497	0	0.0
Goa	4,083	4,083	0	0.0
Western Region	388,013	387,975	38	0.0
Andhra Pradesh	62,080	62,076	4	0.0
Telangana	66,998	66,994	4	0.0
Karnataka	68,851	68,831	19	0.0
Kerala	25,118	25,102	16	0.1
Tamil Nadu	101,194	101,189	5	0.0
Puducherry	2,644	2,644	0	0.0
Lakshadweep #	56	56	0	0.0
Southern Region	326,885	326,836	48	0.0
Bihar	34,171	34,018	153	0.4
DVC	21,368	21,368	0	0.0
Jharkhand	9,953	9,675	278	2.8
Odisha	29,848	29,848	0	0.0
West Bengal	51,644	51,543	100	0.2
Sikkim	546	546	0	0.0
Andaman- Nicobar #	346	323	23	6.7
Eastern Region	147,530	146,999	531	0.4
Arunachal Pradesh	719	714	5	0.7
Assam	10,192	9,815	377	3.7
Manipur	974	969	5	0.5
Meghalaya	2,031	2,005	26	1.3
Mizoram	728	723	4	0.6
Nagaland	826	822	4	0.5
Tripura	1,484	1,481	3	0.2
North-Eastern Region	16,955	16,531	424	2.5
All India	1,275,534	1,270,663	4,871	0.4

Lakshadweep and Andaman & Nicobar Islands are stand- alone systems, power supply position of these, does not form part of regional requirement and energy supplied.

* Excludes energy exported to Bangladesh.

Note: Power Supply Position Report has been compiled based on the data furnished by State Utilities/ Electricity Departments. The MU figures have been rounded off to nearest unit place.

State / System / Region	April, 2021-February, 2022*			
	Energy Requirement	Energy Supplied	Energy not Supplied	
	(MU)	(MU)	(MU)	(%)
Chandigarh	1,498	1,498	0	0.0
Delhi	28,867	28,861	6	0.0
Haryana	51,068	50,879	189	0.4
Himachal Pradesh	11,080	11,053	27	0.2
Jammu & Kashmir	18,097	16,718	1,380	7.6
Punjab	58,328	57,924	404	0.7
Rajasthan	81,625	81,215	410	0.5
Uttar Pradesh	118,536	117,441	1,095	0.9
Uttarakhand	14,120	14,049	70	0.5
Northern Region	383,220	379,639	3,581	0.9
Chhattisgarh	28,654	28,620	34	0.1
Gujarat	112,485	112,127	358	0.3
Madhya Pradesh	78,365	78,319	46	0.1
Maharashtra	155,819	155,819	0	0.0
Daman & Diu	2,362	2,353	9	0.4
Dadar Nagar Haveli	6,241	6,237	4	0.1
Goa	4,032	4,026	6	0.1
Western Region	387,957	387,499	458	0.1
Andhra Pradesh	61,539	61,415	124	0.2
Telangana	62,462	62,452	10	0.0
Karnataka	64,396	64,382	14	0.0
Kerala	23,953	23,946	7	0.0
Tamil Nadu	99,259	99,250	9	0.0
Puducherry	2,633	2,633	0	0.0
Lakshadweep #	50	50	0	0.0
Southern Region	314,241	314,077	164	0.1
Bihar	33,265	32,877	388	1.2
DVC	21,650	21,647	3	0.0
Jharkhand	10,090	9,641	449	4.4
Odisha	34,757	34,753	4	0.0
West Bengal	49,002	48,951	51	0.1
Sikkim	550	550	0	0.0
Andaman- Nicobar #	308	300	8	2.5
Eastern Region	149,314	148,420	895	0.6
Arunachal Pradesh	791	791	1	0.1
Assam	9,960	9,941	19	0.2
Manipur	931	930	1	0.1
Meghalaya	2,057	2,043	13	0.7
Mizoram	601	589	12	1.9
Nagaland	787	786	1	0.1
Tripura	1,455	1,455	0	0.0
North-Eastern Region	16,581	16,535	47	0.3
All India	1,251,314	1,246,170	5,144	0.4

Lakshadweep and Andaman & Nicobar Islands are stand- alone systems, power supply position of these, does not form part of regional requirement and energy supplied.

* Excludes energy exported to Bangladesh.

Note: Power Supply Position Report has been compiled based on the data furnished by State Utilities/ Electricity Departments. The MU figures have been rounded off to nearest unit place.

**ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 2608
ANSWERED IN THE LOK SABHA ON 17.03.2022**

The State-wise details of Renewable Energy Generation in the country during 2018-19, 2019-20, 2020-21 and current year 2021-22 (upto Jan./Feb., 2022).

STATE-WISE GENERATION DETAILS FROM 2018-19 TO 2021-22 (UPTO FEB 22)*						
State	CATEGORY	Monitored Capacity as on 31.02.2022 MW	GENERATION (MU)	2020-21	2019-20	2018-19
			2021-22 (upto- Feb, 22)* MU			
DELHI	THERMAL	2208.40	4590.72	5304.01	6015.11	7136.04
DELHI Total		2208.40	4590.72	5304.01	6015.11	7136.04
HARYANA	THERMAL	5761.59	20548.51	14896.38	17317.01	25435.43
HARYANA Total		5761.59	20548.51	14896.38	17317.01	25435.43
HIMACHAL PRADESH	HYDRO	10065.02	34513.71	37473.47	40834.88	35908.55
HIMACHAL PRADESH Total		10065.02	34513.71	37473.47	40834.88	35908.55
JAMMU AND KASHMIR	THERMAL	175.00	0.00	0.00	0.00	0.00
	HYDRO	3360.00	15721.57	17002.68	18094.12	16541.58
JAMMU AND KASHMIR Total		3535.00	15721.57	17002.68	18094.12	16541.58
LADAKH	HYDRO	89.00	388.34	376.21	270.28	-
LADAKH Total		89.00	388.34	376.21	270.28	-
PUNJAB	THERMAL	5680.00	21573.32	17994.79	20901.67	26364.26
	HYDRO	1096.30	3403.46	4747.03	5123.48	4335.40
PUNJAB Total		6776.30	24976.78	22741.82	26025.15	30699.66
RAJASTHAN	THERMAL	11503.13	45674.74	46235.27	46884.62	48245.58
	NUCLEAR	1180.00	7498.46	7386.05	8451.58	8034.28
	HYDRO	411.00	394.96	469.63	606.18	698.40
RAJASTHAN Total		13094.13	53568.16	54090.95	55942.38	56978.26
UTTAR PRADESH	THERMAL	25882.14	119961.19	122063.71	119315.45	118434.15
	NUCLEAR	440.00	3263.04	3284.81	3791.29	3161.89
	HYDRO	501.60	1297.26	1572.35	1073.48	1176.36
UTTAR PRADESH Total		26823.74	124521.49	126920.87	124180.22	122772.40
UTTARAKHAND	THERMAL	450.00	1012.32	721.97	1986.79	1254.24
	HYDRO	3855.35	13394.51	13592.49	14554.53	13741.12
UTTARAKHAND Total		4305.35	14406.83	14314.46	16541.32	14995.36
CHHATTISGARH	THERMAL	23688.00	127224.97	134614.50	117992.27	115471.25
	HYDRO	120.00	377.26	419.19	236.79	243.08
CHHATTISGARH Total		23808.00	127602.23	135033.69	118229.06	115714.33
GOA	THERMAL	48.00	0.00	0.00	0.00	0.00
GOA Total		48.00	0.00	0.00	0.00	0.00
GUJARAT	THERMAL	23643.41	51938.13	95936.00	98106.04	94548.61
	NUCLEAR	440.00	3167.60	3712.96	3428.60	999.93
	HYDRO	1990.00	2457.29	4233.36	5414.68	1042.81
GUJARAT Total		26073.41	57563.02	103882.32	106949.32	96591.35
MADHYA PRADESH	THERMAL	21950.00	117044.76	123089.78	114818.28	118281.10
	HYDRO	2235.00	4269.74	6477.33	6281.74	3396.67
MADHYA PRADESH Total		24185.00	121314.50	129567.11	121100.02	121677.77
MAHARASHTRA	THERMAL	27063.08	110614.27	104137.26	115001.20	121180.50
	NUCLEAR	1400.00	7788.78	7886.62	10536.43	10766.42
	HYDRO	3047.00	5206.73	5548.46	5880.58	5076.86
MAHARASHTRA Total		31510.08	123609.78	117572.34	131418.21	137023.78
ANDHRA PRADESH	THERMAL	16525.34	49680.62	49468.95	59929.69	60870.88
	HYDRO	1610.00	2918.94	3280.12	3013.43	2272.94
ANDHRA PRADESH Total		18135.34	52599.56	52749.07	62943.12	63143.82
KARNATAKA	THERMAL	9505.20	26560.29	19861.24	23836.42	30352.74
	NUCLEAR	880.00	6811.77	7093.92	7278.22	7216.53
	HYDRO	3689.20	12377.89	12587.35	14014.27	12187.69
KARNATAKA Total		14074.40	45749.95	39542.51	45128.91	49756.96
KERALA	THERMAL	693.54	0.00	109.24	12.04	4.88
	HYDRO	1856.50	8548.59	6628.39	5454.04	7320.21
KERALA Total		2550.04	8548.59	6737.63	5466.08	7325.09
PUDUCHERRY	THERMAL	32.50	231.64	232.15	255.79	229.88
PUDUCHERRY Total		32.50	231.64	232.15	255.79	229.88
TAMIL NADU	THERMAL	14913.88	55904.53	51200.05	65746.45	70863.38
	NUCLEAR	2440.00	14130.91	13664.72	12986.33	7633.54
	HYDRO	2178.20	4850.66	5212.71	4765.24	5281.59
TAMIL NADU Total		19532.08	74886.10	70077.48	83498.02	83778.51

TELANGANA	THERMAL	7842.50	46459.94	44760.76	47347.78	48218.42
	HYDRO	2405.60	5507.66	3645.38	4507.04	1744.61
TELANGANA Total		10248.10	51967.60	48406.14	51854.82	49963.03
ANDAMAN NICOBAR	THERMAL	40.05	104.12	118.48	96.19	120.73
ANDAMAN NICOBAR Total		40.05	104.12	118.48	96.19	120.73
BIHAR	THERMAL	7740.00	39341.49	33866.14	35360.76	32170.52
BIHAR Total		7740.00	39341.49	33866.14	35360.76	32170.52
JHARKHAND	THERMAL	4250.00	25745.64	27219.97	26072.08	26800.65
	HYDRO	210.00	534.29	223.09	150.96	180.98
JHARKHAND Total		4460.00	26279.93	27443.06	26223.04	26981.63
ODISHA	THERMAL	9540.00	54221.35	55206.47	41525.20	40046.92
	HYDRO	2154.55	4833.88	6859.97	6728.77	6777.45
ODISHA Total		11694.55	59055.23	62066.44	48253.97	46824.37
SIKKIM	HYDRO	2282.00	11023.76	10879.50	11027.36	9022.07
SIKKIM Total		2282.00	11023.76	10879.50	11027.36	9022.07
WEST BENGAL	THERMAL	14257.00	75019.63	72735.07	71395.39	74032.25
	HYDRO	1341.20	3018.37	3212.28	2916.38	2919.81
WEST BENGAL Total		15598.20	78038.00	75947.35	74311.77	76952.06
ARUNACHAL PRADESH	HYDRO	1115.00	3940.77	3451.34	1786.46	1399.02
ARUNACHAL PRADESH Total		1115.00	3940.77	3451.34	1786.46	1399.02
ASSAM	THERMAL	1370.36	6793.55	5698.14	6738.69	5530.62
	HYDRO	350.00	666.14	270.87	1291.68	1694.36
ASSAM Total		1720.36	7459.69	5969.01	8030.37	7224.98
MANIPUR	THERMAL	36.00	0.00	0.00	0.00	0.00
	HYDRO	105.00	435.00	621.62	366.59	602.61
MANIPUR Total		141.00	435.00	621.62	366.59	602.61
MEGHALAYA	HYDRO	322.00	809.12	1151.99	1018.29	929.53
MEGHALAYA Total		322.00	809.12	1151.99	1018.29	929.53
MIZORAM	HYDRO	60.00	122.89	158.85	177.02	168.44
MIZORAM Total		60.00	122.89	158.85	177.02	168.44
NAGALAND	HYDRO	75.00	97.36	203.86	180.85	231.47
NAGALAND Total		75.00	97.36	203.86	180.85	231.47
TRIPURA	THERMAL	1099.60	5719.76	7043.21	6092.94	6630.85
TRIPURA Total		1099.60	5719.76	7043.21	6092.94	6630.85
Bhutan (IMP)	(blank)	0.00	7310.62	8765.50	5794.48	4406.62
Bhutan (IMP) Total		0.00	7310.62	8765.50	5794.48	4406.62
		289203.24	1197046.82	1234607.64	1250783.91	1249336.70

1. Gross Generation from fuel source (Thermal, Hydro and Nuclear) stations of 25MW and above only.

2. LADAKH separated from J&K in 2019-20

*TENTATIVE

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 2608 ANSWERED IN THE LOK SABHA ON 17.03.2022.

The State-wise details of Renewable Energy Generation in the country during 2018-19, 2019-20, 2020-21 and current year 2021-22 (upto Jan./Feb.,2022).

All India RE Generation Year 2018-19

All Fig in MU

All India RE Generation Year 2018-19 (All Fig in MU)

Name of State/UT	Wind	Solar	Biomass	Bagasse	Small Hydro	Others	Renewable Energy Total
Chandigarh	0.00	13.51	0.00	0.00	0.00	0.00	13.51
Delhi	0.00	10.83	0.00	0.00	0.00	276.81	287.64
Haryana	0.00	72.47	192.68	146.37	250.84	0.00	662.36
HP	0.00	0.00	0.00	0.00	2287.93	0.00	2287.93
J & K	0.00	0.00	0.00	0.00	312.20	0.00	312.20
Ladkh	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Punjab	0.00	1492.90	355.90	245.18	351.22	0.00	2445.20
Rajasthan	6403.78	5109.35	345.09	0.00	5.18	0.00	11863.40
Uttar Pradesh	0.00	1235.08	104.04	4324.40	31.29	0.00	5694.81
Uttarakhand	0.00	318.29	0.00	109.89	676.79	0.00	1104.97
Northern Region	6403.78	8252.45	997.71	4825.84	3915.45	276.81	24672.03
Chhattisgarh	0.00	335.15	529.89	0.00	80.05	0.00	945.10
Gujarat	11389.29	2410.32	75.28	5.09	86.19	0.00	13966.18
Madhya Pradesh	4965.95	2982.29	2.01	110.33	145.47	51.11	8257.15
Maharashtra	7575.14	2206.62	445.98	3987.27	759.07	0.80	14974.88
Dadra and Nagar Haveli	0.00	5.76	0.00	0.00	0.00	0.00	5.76
Daman & Diu	0.00	18.94	0.00	0.00	0.00	0.00	18.94
Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Western Region	23930.38	7959.08	1053.16	4102.69	1070.78	51.91	38168.01
Andhra Pradesh	8869.85	4965.96	201.86	312.45	193.12	7.27	14550.51
Telangana	274.83	6312.26	152.24	166.20	51.17	89.29	7045.99
Karnataka	9778.25	7575.83	155.02	2345.35	1803.09	0.00	21657.54
Kerala	107.94	110.84	0.00	0.00	551.55	0.00	770.32
Tamil Nadu	12600.85	3554.50	127.16	268.01	347.97	0.00	16898.49
Lakshadweep	0.00	1.11	0.00	0.00	0.00	0.00	1.11
Puducherry	0.00	2.58	0.00	0.00	0.00	0.00	2.58
Southern Region	31631.71	22523.09	636.28	3092.01	2946.90	96.55	60926.54
Andaman Nicobar	0.00	13.86	0.00	0.00	16.57	0.00	30.43
Bihar	12.28	179.89	10.59	257.64	27.74	0.00	488.14
Jharkhand	0.00	19.15	0.00	0.81	1.76	0.00	21.72
Orissa	58.23	263.03	66.08	0.00	266.10	0.00	653.43
Sikkim	0.00	0.00	0.00	0.00	28.11	0.00	28.11
West Bengal	0.00	40.65	0.00	1283.69	161.85	0.00	1486.19
Eastern Region	70.51	516.57	76.67	1542.13	502.14	0.00	2708.02
Arunachal Pradesh	0.00	1.20	0.00	0.00	0.55	0.00	1.75
Assam	0.00	6.67	0.00	0.00	14.06	0.00	20.73
Manipur	0.00	1.88	0.00	0.00	0.00	0.00	1.88
Meghalaya	0.00	0.00	0.00	0.00	50.51	0.00	50.51
Mizoram	0.00	0.12	0.00	0.00	39.96	0.00	40.08
Nagaland	0.00	0.00	0.00	0.00	87.46	0.00	87.46
Tripura	0.00	7.14	0.00	0.00	74.94	0.00	82.08
North Eastern Region	0.00	17.00	0.00	0.00	267.48	0.00	284.49
All India Total	62036.38	39268.19	2763.82	13562.67	8702.75	425.28	126759.09

All India RE Generation Year 2019-20 (All Fig in MU)

Name of State/UT	Wind	Solar	Biomass	Bagasse	Small Hydro	Others	Renewable Energy Total
Chandigarh	0.00	13.33	0.00	0.00	0.00	0.00	13.33
Delhi	0.00	136.30	0.00	0.00	0.00	287.37	423.67
Haryana	0.00	125.14	186.90	94.57	326.89	0.00	733.50
HP	0.00	11.66	0.00	0.00	2155.58	0.00	2167.24
J & K	0.00	0.00	0.00	0.00	443.13	0.00	443.13
Ladkh	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Punjab	16.90	1358.22	398.37	252.85	712.77	0.32	2739.43
Rajasthan	6155.80	7776.56	389.94	0.00	9.75	0.00	14332.06
Uttar Pradesh	0.00	1447.05	129.63	3530.10	36.43	0.00	5143.20
Uttarakhand	0.00	341.51	0.00	110.26	742.19	0.00	1193.95
Northern Region	6172.70	11209.77	1104.84	3987.78	4426.73	287.69	27189.51
Chhattisgarh	0.00	326.42	679.70	0.00	101.75	0.00	1107.87
Gujarat	13748.53	3631.86	107.03	15.95	194.80	18.77	17716.93
Madhya Pradesh	4425.99	3496.23	1.81	95.66	246.16	32.02	8297.88
Maharashtra	7984.27	2372.68	411.99	2520.45	695.56	0.84	13985.79
Dadra and Nagar Haveli	0.00	6.19	0.00	0.00	0.00	0.00	6.19
Daman & Diu	0.00	21.83	0.00	0.00	0.00	0.00	21.83
Goa	0.00	0.82	0.00	0.00	0.00	0.00	0.82
Western Region	26158.79	9856.02	1200.53	2632.06	1238.27	51.63	41137.31
Andhra Pradesh	7626.63	5855.11	147.47	58.49	298.19	7.31	13993.20
Telangana	238.25	6263.92	124.30	102.23	46.29	19.25	6794.23
Karnataka	10148.66	11221.20	171.27	2205.38	1901.91	0.00	25648.42
Kerala	119.76	143.59	0.00	11.03	530.36	0.00	804.74
Tamil Nadu	14126.93	4946.63	103.78	350.79	235.76	0.00	19763.89
Lakshadweep	0.00	0.66	0.00	0.00	0.00	0.00	0.66
Puducherry	0.00	4.14	0.00	0.00	0.00	0.00	4.14
Southern Region	32260.23	28435.25	546.81	2727.93	3012.50	26.56	67009.28
Andaman Nicobar	0.00	11.60	0.00	0.00	5.70	0.00	17.30
Bihar	0.00	160.16	19.19	160.35	18.98	0.00	358.68
Jharkhand	0.00	17.47	0.00	1.28	5.43	0.00	24.17
Orissa	54.66	362.29	66.59	0.00	299.65	0.00	783.20
Sikkim	0.00	0.00	0.00	0.00	60.62	0.00	60.62
West Bengal	0.00	64.29	0.00	1295.07	115.68	0.00	1475.04
Eastern Region	54.66	615.81	85.79	1456.69	506.06	0.00	2719.01
Arunachal Pradesh	0.00	1.60	0.00	0.00	0.64	0.00	2.24
Assam	0.00	6.14	0.00	0.00	52.63	0.00	58.77
Manipur	0.00	2.63	0.00	0.00	1.57	0.00	4.20
Meghalaya	0.00	0.00	0.00	0.00	62.73	0.00	62.73
Mizoram	0.00	0.44	0.00	0.00	49.56	0.00	50.00
Nagaland	0.00	0.00	0.00	0.00	75.87	0.00	75.87
Tripura	0.00	3.43	0.00	0.00	24.67	0.00	28.10
North Eastern Region	0.00	14.24	0.00	0.00	267.67	0.00	281.91
All India Total	64646.38	50131.09	2937.97	10804.46	9451.24	365.88	138337.02

All India RE Generation Year 2020-21 (All Fig in MU)

Name of State/UT	Wind	Solar	Biomass	Bagasse	Small Hydro	Others	Renewable Energy Total
Chandigarh	0.00	10.16	0.00	0.00	0.00	0.00	10.16
Delhi	0.00	189.99	0.00	0.00	0.00	236.71	426.70
Haryana	0.00	162.95	178.88	142.34	276.58	0.00	760.75
HP	0.00	36.52	0.00	0.00	2123.78	0.00	2160.30
J & K	0.00	9.42	0.00	0.00	429.88	0.00	439.29
Punjab	0.00	1356.48	585.99	231.50	690.33	0.17	2864.47
Rajasthan	5708.27	10384.24	413.24	0.00	10.64	0.00	16516.38
Uttar Pradesh	0.00	1856.19	135.82	3590.87	164.91	0.00	5747.78
Uttarakhand	0.00	329.64	0.00	85.33	821.88	0.00	1236.85
Northern Region	5708.27	14335.59	1313.92	4050.03	4518.00	236.88	30162.68
Chhattisgarh	0.00	370.80	1089.32	28.25	145.52	0.00	1633.89
Gujarat	13058.52	4633.81	43.15	19.37	211.94	10.61	17977.39
Madhya Pradesh	3913.45	4202.03	0.48	82.57	281.76	37.57	8517.86
Maharashtra	6384.74	3089.46	328.23	3627.43	802.71	0.10	14232.67
Dadra and Nagar Haveli	0.00	11.96	0.00	0.00	0.00	0.00	11.96
Daman & Diu	0.00	29.52	10.53	0.00	0.00	0.00	40.04
Goa	0.00	1.46	0.00	0.00	0.00	0.00	1.46
Western Region	23356.70	12339.03	1471.71	3757.61	1441.93	48.27	42415.27
Andhra Pradesh	6557.75	6956.10	135.21	67.66	351.23	65.88	14133.83
Telangana	220.91	6351.04	164.11	61.00	67.27	69.05	6933.37
Karnataka	9610.91	13238.86	211.79	2589.09	2199.68	0.00	27850.33
Kerala	130.42	275.44	0.00	45.68	640.58	0.01	1092.12
Tamil Nadu	14564.99	6115.48	152.23	581.57	244.77	0.00	21659.05
Lakshadweep	0.00	0.45	0.00	0.00	0.00	0.00	0.45
Puducherry	0.00	6.39	0.00	0.00	0.00	0.00	6.39
Southern Region	31084.98	32943.75	663.34	3344.99	3503.54	134.93	71675.53
Andaman Nicobar	0.00	24.82	0.00	0.00	14.69	0.00	39.51
Bihar	0.00	160.63	21.30	1.48	43.20	0.00	226.61
Jharkhand	0.00	17.16	0.00	0.00	9.31	0.00	26.47
Orissa	0.00	476.26	42.71	0.00	358.80	0.00	877.77
Sikkim	0.00	0.00	0.00	0.00	55.96	0.00	55.96
West Bengal	0.00	73.92	0.00	148.73	107.06	1200.99	1530.70
Eastern Region	0.00	752.78	64.01	150.21	589.03	1200.99	2757.01
Arunachal Pradesh	0.00	1.54	0.00	0.00	0.55	0.00	2.10
Assam	0.00	13.37	0.00	0.00	38.15	0.00	51.51
Manipur	0.00	7.71	0.00	0.00	0.00	0.00	7.71
Meghalaya	0.00	0.00	0.00	0.00	56.79	0.00	56.79
Mizoram	0.00	2.45	0.00	0.00	31.07	0.00	33.52
Nagaland	0.00	0.00	0.00	0.00	69.77	0.00	69.77
Tripura	0.00	6.04	0.00	0.00	9.58	0.00	15.62
North Eastern Region	0.00	31.11	0.00	0.00	205.91	0.00	237.02
All India Total	60149.95	60402.26	3512.98	11302.85	10258.41	1621.06	147247.51

All India RE Generation Year 2021-22 (upto-Jan-22) (All Fig in MU)

Name of State/UT	Wind	Solar	Biomass	Baggasse	Others (Waste to energy)	Small Hydro (Up to 25 MW)	Total
Northern Region							
Chandigarh	0.00	12.21	0.00	0.00	0.00	0.00	12.21
Delhi	0.00	185.76	0.00	0.00	197.04	0.00	382.80
Haryana	0.00	446.94	133.45	55.64	16.53	225.67	878.23
Himachal Pradesh	0.00	37.09	0.00	0.00	0.00	1806.12	1843.21
J & K	0.00	1.71	0.00	0.00	0.00	356.53	358.24
Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Punjab	0.00	1222.03	479.52	123.29	0.23	925.26	2750.34
Rajasthan	5699.34	12736.28	313.16	0.00	0.00	4.69	18753.47
Uttar Pradesh	0.00	2274.16	66.25	2139.47	20.40	121.79	4622.07
Uttarakhand	0.00	246.30	0.00	202.60	0.00	267.80	716.70
Northern Region Total	5699.34	17162.48	992.38	2521.00	234.20	3707.87	30317.28
Chhattisgarh	0.00	343.54	1071.09	4.57	0.00	174.99	1594.19
Gujarat	15478.65	5345.47	0.00	15.19	0.00	148.30	20987.62
Madhya Pradesh	3792.22	3177.39	11.88	44.87	26.88	190.68	7243.91
Maharashtra	6504.46	2583.63	266.28	2905.76	0.11	629.53	12889.77
Dadra and Nagar Haveli	0.00	38.45	0.00	0.00	0.00	0.00	38.45
Daman & Diu	0.00	29.30	10.07	0.00	0.00	0.00	39.37
Goa	0.00	11.80	0.00	0.00	0.27	0.00	12.08
Western Region Total	25775.33	11529.58	1359.32	2970.39	27.26	1143.50	42805.39
Andhra Pradesh	6398.16	6335.67	88.33	47.44	94.91	314.16	13278.68
Telangana	238.11	5248.60	93.60	61.31	193.75	77.93	5913.30
Karnataka	8561.39	10613.14	152.22	2425.70	0.00	2282.45	24034.90
Kerala	118.81	392.66	0.00	40.98	0.00	792.32	1344.77
Tamil Nadu	14734.34	5785.38	96.10	433.19	0.00	265.87	21314.89
Lakshadweep	0.00	0.28	0.00	0.00	0.00	0.00	0.28
Puducherry	0.00	10.20	0.00	0.00	0.00	0.00	10.20
Southern Region Total	30050.81	28385.93	430.26	3008.62	288.66	3732.73	65897.01
Andaman Nicobar	0.00	17.50	0.00	0.00	0.00	11.78	29.28
Bihar	0.00	130.20	2.14	42.97	0.00	5.83	181.14
Jharkhand	0.00	14.50	0.00	0.00	0.00	7.94	22.43
Orissa	0.00	476.83	83.83	0.00	0.00	346.78	907.44
Sikkim	0.00	0.00	0.00	0.00	0.00	10.30	10.30
West Bengal	0.00	77.92	0.00	0.00	1325.63	138.72	1542.27
Eastern Region Total	0.00	716.94	85.97	42.97	1325.63	521.34	2692.85
Arunachal Pradesh	0.00	1.39	0.00	0.00	0.00	0.31	1.71
Assam	0.00	60.73	0.00	0.00	0.00	35.03	95.76
Manipur	0.00	5.45	0.00	0.00	0.00	0.00	5.45
Meghalaya	0.00	0.47	0.00	0.00	0.00	37.22	37.69
Mizoram	0.00	1.51	0.00	0.00	0.00	20.39	21.90
Nagaland	0.00	0.00	0.00	0.00	0.00	57.03	57.03
Tripura	0.00	5.04	0.00	0.00	0.00	1.44	6.48
North Eastern Region Total	0.00	74.59	0.00	0.00	0.00	151.43	226.02
All India Total	61525.49	57869.53	2867.92	8542.98	1875.76	9256.86	141938.54

ANNEXURE-IV**ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 2608
ANSWERED IN THE LOK SABHA ON 17.03.2022**

The details of generating capacity addition during the last three years and the current year.

YEAR	THERMAL (MW)	HYDRO (MW)	RENEWABLES (MW)	TOTAL (MW)
2018-19	5781.755	140.00	8760.52	14682.275
2019-20	6765.00	300.00	8843.34	15908.34
2020-21	4926.15	510.00	7548.11	12984.26
2021-22* (As on 28.02.2022)	3825.00	213.00	10573.21	14611.21

**ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 2608
ANSWERED IN THE LOK SABHA ON 17.03.2022**

The details of the measures taken to increase power production and improve the overall power situation:

- i. Thermal Projects totaling to 28460 MW are under construction in the country.
- ii. Presently, there are 36 nos. of Large Hydro Projects (above 25 MW) totaling to 12663.5 MW which are under implementation in the country. Out of which, 27 nos. of projects totaling to 11427.5 MW are under active construction and 9 nos. of projects totaling to 1236 MW are presently stalled.
- iii. Nuclear capacity amounting to 8700 MW are under construction capacity and 7000 MW nuclear power projects have been accorded Administrative Approval and Financial Sanction.
- iv. A total of 63,570 Ckm of transmission lines, 2,68,102 MVA of transformation capacity have been added in the country since FY 2018-19 till 28.02.22 for evacuation of power from Intra-State & Inter-State generating stations to load centres through Intra-State and Inter-State Transmission System (ISTS) and for strengthening of existing network to cater to the projected peak demand. Inter-regional capacity has also been increased by 25,800 MW since FY 2018-19 till 28.02.22. The increase in inter-regional transmission capacity would facilitate smooth flow of power from surplus to needy regions.

YEAR	Transmission lines in Ckm	Substations in MVA	IR Capacity in MW
2018-19	22,437	72,705	12,600
2019-20	11,664	68,230	3000
2020-21	16,750	57,575	3000
2021-22	12,719 *(till 28.02.22)	69,592 *(till 28.02.22)	7,200 *(till 28.02.22)
Total	63,570	2,68,102	25,800

- v. Ministry of Power has notified the “Revamped Distribution Sector Scheme: (RDSS)” on 20.07.2021 with an outlay of Rs.3,03,758 Crore and an estimated Gross Budgetary Support (GBS) from Central Government of Rs.97,631 Crore. The Scheme aims to reduce the AT&C losses to pan-India level of 12-15% and ACS-ARR gap to zero by 2024-25). Under the scheme, eligible DISCOMs (all State-owned Distribution companies and State /UT Power Departments excluding private Sector power companies) would be provided financial support for upgradation of the Distribution Infrastructure, Distribution Automation, IT intervention and implementation of SCADA/DMS & Smart Metering system for the Network as well as prepaid smart metering systems for consumers. This will facilitate various infrastructure Reforms in Distribution Sector. States/Utilities are taking action to submit the DPRs for seeking funding under the RDSS Scheme.

Additionally, as per the information provided by Ministry of New and Renewable Energy (MNRE), the Government has taken several measures for the promotion of renewable energy in the country. These inter-alia include:

- i. Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route;

- ii. **Waiver of Inter State Transmission System (ISTS) charges for inter-State sale of solar and wind power for projects to be commissioned by 30th June 2025;**
- iii. **Laying of new transmission lines and creating new sub-station capacity for evacuation of renewable power;**
- iv. **Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2022;**
- v. **Setting up of RE parks to provide land and transmission to RE developers on a plug and play basis;**
- vi. **Schemes such as Pradhan Mantri Kisan Urja Surakshaevam Utthaan Mahabhiyan (PM-KUSUM), Solar Rooftop Phase II, 12000 MW CPSU Scheme Phase II, etc.;**
- vii. **Notification of standards for deployment of solar photovoltaic system/devices;**
- viii. **Setting up of Project Development Cell for attracting and facilitating investments;**
- ix. **Standard Bidding Guidelines for tariff based competitive bidding for procurement of Power from Grid Connected Solar PV and Wind Projects; and**
- x. **Government has issued orders that power shall be dispatched against Letter of Credit (LC) or advance payment to ensure timely payment by distribution licensees to RE generators.**
