

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 944
ANSWERED ON 11/02/2025

**POWER GENERATION SOURCES AND FUTURE OF RENEWABLE ENERGY IN
THE COUNTRY**

944. SMT. SULATA DEO

Will the Minister of New and Renewable Energy be pleased to state:

- (a) the total power generation capacity of each State, specifying the sources of energy like coal, natural gas, hydro, solar, wind etc;
- (b) a breakdown of power generation by source for each State over the last three years, year-wise;
- (c) the plans and initiatives proposed by Government to enhance renewable energy capacity in each State, including specific targets and timelines; and
- (d) the challenges faced by States in transitioning to renewable energy and the strategies being implemented to address these challenges?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

- (a) The source-wise and State-wise power generation capacity in the country as on 31.12.2024 is given at **Annexure-I**.
- (b) The State-wise, source-wise and year-wise details of power generation during the last three years are given at **Annexure-II**.
- (c)&(d) In line with Hon'ble Prime Minister's announcement at COP26, Ministry of New and Renewable Energy is working towards achieving 500 GW of installed electricity capacity from non-fossil sources by 2030. The major challenges that are highlighted by the developers of renewable energy projects are Renewable Purchase Obligation compliance and certain delays in transmission connectivity both of which are being addressed. Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country. Details are given at **Annexure-III**.

**Annexure-I referred to in reply of part (a) of the Rajya Sabha Unstarred Question
No. 944 to be answered on 11.02.2025**

State-wise and source-wise power generation capacity (location-wise) as on 31.12.2024

(All figures in MW)

State/UT	Mode-wise breakup							Total
	Coal	Lignite	Gas	Diesel	Hydro	RE Sources (other than Large Hydro)	Nuclear	
Andhra Pradesh	13,190	0	4,678.54	36.8	1610	9,564.62	0	29,079.96
Arunachal Pradesh	0	0	0	0	1115	155.46	0	1,270.46
Assam	750	0	597.36	0	350	221.55	0	1918.9
Bihar	9,060	0	0	0	0	527.96	0	9,587.96
Chhattisgarh	23,688	0	0	0	120	1,687.34	0	25,495.34
Goa	0	0	48	0	0	54.55	0	102.55
Gujarat	14,692	1,400	7,551.41	0	1990	29,492.79	1,840	56,966.2
Haryana	5,330	0	431.59	0	0	2,353.08	0	8,114.67
Himachal Pradesh	0	0	0	0	10,281.02	1,173.42	0	11,454.44
Jammu and Kashmir	0	0	175	0	3360	264.29	0	3,799.29
Jharkhand	5,570	0	0	0	210	224.06	0	6,004.06
Karnataka	9,480	0	0	25.2	3,689.2	18,912.92	880	32,987.32
Kerala	0	0	533.58	159.96	1,904.15	1,656.18	0	4,253.87
Ladakh	0	0	0	0	89	53.59	0	142.59
Madhya Pradesh	22,000	0	0	0	2,235	8,076.94	0	32,311.94
Maharashtra	24,006.01	0	3,207.08	0	3,047	17,574.07	1,400	49,234.16
Manipur	0	0	0	36	105	19.24	0	160.24
Meghalaya	0	0	0	0	322	73.11	0	395.11
Mizoram	0	0	0	0	60	75.86	0	135.86
Nagaland	0	0	0	0	75	35.84	0	110.84
Odisha	9,600	0	0	0	2,154.55	790.77	0	12,545.32
Punjab	5,680	0	0	0	1,096.3	2130.4	0	8,906.7
Rajasthan	9,200	1,580	1,022.83	0	411	31,835.38	1,180	45,229.21
Sikkim	0	0	0	0	2,282	62.67	0	2,344.67
Tamil Nadu	10,522.5	3,640	1,027.18	211.7	2,178.2	22,145.22	2,440	42,164.8
Telangana	9,442.5	0	0	0	2,405.6	5,282.74	0	17,130.84
Tripura	0	0	1,067.6	0	0	37.24	0	1,104.84
Uttar Pradesh	26,715	0	1,493.14	0	501.6	5,667.47	440	34,817.21
Uttarakhand	0	0	664	0	4,035.35	969.13	0	5668.48
West Bengal	13,487	0	80	0	1,341.2	757.48	0	15,665.68
A&N Islands	0	0	0	92.71	0	35.16	0	127.87
Chandigarh	0	0	0	0	0	77.05	0	77.05
Dadra & Nagar Haveli and Daman & Diu	0	0	0	0	0	51.87	0	51.87
Delhi	0	0	2,208.4	0	0	378.9	0	2,587.3
Lakshadweep	0	0	0	26.83	0	4.97	0	31.8
Puducherry	0	0	32.5	0	0	53.26	0	85.76
Total	2,12,413.01	6,620	24,818.21	589.2	46,968.17	1,62,476.58	8,180	4,62,065.16

Source: Central Electricity Authority (CEA)

State-wise source-wise break-up of Renewable Energy (RE) capacity as on 31.12.2024

(All figures in MW)

Sl. No.	States/UTs	Small Hydro Power	Wind Power	Bio Power Total	Solar Power Total	Large Hydro	Total RE Capacity
1	Andhra Pradesh	163.31	4,096.65	574.39	4,730.27	1,610	11,174.62
2	Arunachal Pradesh	140.61	0	0	14.85	1,115	1,270.46
3	Assam	34.11	0	2	185.44	350	571.55
4	Bihar	70.7	0	140.22	317.04	0	527.96
5	Chhattisgarh	76	0	275	1,336.34	120	1,807.34
6	Goa	0.05	0	1.94	52.56	0	54.55
7	Gujarat	106.64	12,473.78	116.6	16,795.77	1,990	31,482.79
8	Haryana	73.5	0	292.62	1,986.96	0	2,353.08
9	Himachal Pradesh	1,000.71	0	10.2	162.51	10,281.02	11,454.44
10	Jammu & Kashmir	189.93	0	0	74.36	3,360	3,624.29
11	Jharkhand	4.05	0	20.14	199.87	210	434.06
12	Karnataka	1,284.73	6,731.3	1,909.95	8,986.94	3,689.2	22,602.12
13	Kerala	276.52	63.5	2.5	1,313.66	1,904.15	3,560.33
14	Ladakh	45.79	0	0	7.8	89	142.59
15	Madhya Pradesh	123.71	2,844.29	135.36	4,973.58	2,235	10,311.94
16	Maharashtra	384.28	5,216.38	2,984.05	8,989.36	3,047	20,621.07
17	Manipur	5.45	0	0	13.79	105	124.24
18	Meghalaya	55.03	0	13.8	4.28	322	395.11
19	Mizoram	45.47	0	0	30.39	60	135.86
20	Nagaland	32.67	0	0	3.17	75	110.84
21	Odisha	115.63	0	59.22	615.92	2,154.55	2,945.32
22	Punjab	176.1	0	567.25	1,387.05	1,096.3	3,226.7
23	Rajasthan	23.85	5,195.82	126.06	26,489.65	411	32,246.38
24	Sikkim	55.11	0	0	7.56	2,282	2,344.67
25	Tamil Nadu	123.05	11,413.34	1,045.45	9,563.38	2,178.2	24,323.42
26	Telangana	90.87	128.1	221.67	4842.1	2,405.6	7,688.34
27	Tripura	16.01	0	0	21.23	0	37.24
28	Uttar Pradesh	49.1	0	2,271.38	3,346.99	501.6	6,169.07
29	Uttarakhand	233.82	0	142.24	593.07	4,035.35	5,004.48
30	West Bengal	98.5	0	348.36	310.62	1,341.2	2,098.68
31	A&N Islands	5.25	0	0	29.91	0	35.16
32	Chandigarh	0	0	0	77.05	0	77.05
33	Dadra & Nagar Haveli and Daman & Diu	0	0	3.75	48.12	0	51.87
34	Delhi	0	0	84	294.9	0	378.9
35	Lakshadweep	0	0	0	4.97	0	4.97
36	Puducherry	0	0	0	53.26	0	53.26
	Total	5,100.55	48,163.16	11,348.15	97,864.72	46,968.17	2,09,444.75

**Annexure-II referred to in reply of part (b) of the Rajya Sabha Unstarred Question
No. 944 to be answered on 11.02.2025**

Year-wise, State-wise and source-wise Generation from Conventional and Renewable Sources in the country during the last three years

FY 2021-22

(In Million Units)

Sl. No.	State/UT	Conventional Sources					Renewable Sources						Grand Total
		Thermal	Hydro	Bhutan Import	Nuclear	Conventional Total	Wind	Solar	Bio Power	Small Hydro	Others	Renewable Energy Total	
1	A&N Islands	117.24				117.24	0.00	21.51	0.00	13.26	0.00	34.77	152.01
2	Andhra Pradesh	55421.08	3113.83			58534.91	7134.58	7832.51	177.55	384.08	133.88	15662.61	74197.52
3	Arunachal Pradesh	0.00	4161.28			4161.28	0.00	1.72	0.00	0.41	0.00	2.13	4163.41
4	Assam	7600.55	676.24			8276.79	0.00	81.64	0.00	40.46	0.00	122.10	8398.89
5	Bhutan	0.00		7493.20		7493.20			0.00			0.00	7493.20
6	Bihar	43940.40				43940.40	0.00	163.08	67.98	8.77	0.00	239.83	44180.23
7	Chhattisgarh	140870.87	404.13			141275.00	0.00	436.56	1315.98	185.67	0.00	1938.21	143213.21
8	Delhi	4948.57				4948.57	0.00	225.84	0.00	0.00	232.89	458.73	5407.30
9	Goa	0.00				0.00	0.00	15.93	0.00	0.00	0.89	16.82	16.82
10	Gujarat	56922.27	2621.51		3503.47	63047.25	17854.77	6774.50	18.17	192.10	0.00	24839.53	87886.78
11	Haryana	22967.73				22967.73	0.00	572.85	268.35	270.13	24.09	1135.42	24103.15
12	Himachal Pradesh	0.00	36459.64			36459.64	0.00	44.29	0.00	1999.47	0.00	2043.76	38503.40
13	Jammu and Kashmir	0.00	17074.02			17074.02	0.00	1.71	0.00	414.10	0.00	415.81	17489.83
14	Jharkhand	28338.72	547.96			28886.68	0.00	18.21	0.00	10.49	0.00	28.71	28915.39
15	Karnataka	30505.26	13936.46		7492.05	51933.77	9491.62	13169.43	3512.32	2460.91	0.00	28634.28	80568.05
16	Kerala	0.00	9317.44			9317.44	136.41	496.93	48.92	932.37	0.00	1614.62	10932.06
17	Ladakh	0.00	405.98			405.98	0.00	0.00	0.00	0.00	0.00	0.00	405.98

18	Madhya Pradesh	129634.45	4686.72			134321.17	4346.66	4006.70	107.55	221.43	34.40	8716.73	143037.90
19	Maharashtra	122610.11	6007.38		8602.18	137219.67	7085.98	3187.18	4785.10	787.16	0.22	15845.64	153065.31
20	Manipur	0.00	455.48			455.48	0.00	6.72	0.00	0.00	0.00	6.72	462.20
21	Meghalaya	0.00	841.82			841.82	0.00	0.47	0.00	44.21	0.00	44.68	886.50
22	Mizoram	0.00	137.44			137.44	0.00	1.68	0.00	26.41	0.00	28.09	165.53
23	Nagaland	0.00	100.55			100.55	0.00	0.00	0.00	63.47	0.00	63.47	164.02
24	Odisha	60161.29	5230.63			65391.92	0.00	603.71	100.08	377.32	0.00	1081.10	66473.02
25	Puducherry	251.13				251.13	0.00	12.24	0.00	0.00	0.00	12.24	263.37
26	Punjab	24175.82	3709.73			27885.55	0.00	1473.41	785.14	983.37	0.24	3242.15	31127.70
27	Rajasthan	51107.41	481.84		8308.85	59898.10	6493.19	17219.88	378.40	7.85	0.00	24099.31	83997.41
28	Sikkim	0.00	11493.90			11493.90	0.00	0.00	0.00	12.35	0.00	12.35	11506.25
29	Tamil Nadu	61182.76	5212.07		15625.26	82020.09	15821.18	7172.88	774.05	293.17	0.00	24061.28	106081.37
30	Telangana	51550.06	5626.63			57176.69	275.69	6536.94	215.07	91.00	227.20	7345.89	64522.58
31	Tripura	6332.25				6332.25	0.00	6.18	0.00	1.44	0.00	7.62	6339.87
32	Uttar Pradesh	131847.42	1402.68		3580.25	136830.35	0.00	2900.41	3245.59	162.54	20.40	6328.94	143159.29
33	Uttarakhand	1012.32	14332.13			15344.45	0.00	301.60	244.02	326.70	0.00	872.32	16216.77
34	West Bengal	83216.77	3189.84			86406.61	0.00	98.24	0.00	152.90	1593.96	1845.09	88251.70
35	Chandigarh	0.00					0.00	14.19	0.00	0.00	0.00	14.19	14.19
36	Dadra and Nagar Haveli and Daman and Diu	0.00					0.00	84.51	12.32	0.00	0.00	96.83	96.83
Grand Total		1114714.48	151627.33	7493.20	47112.06	1320947.07	68640.07	73483.64	16056.58	10463.55	2268.17	170911.99	1491859.06

FY 2022-23

(In Million Units)

Sl. No.	State/UT	Conventional Sources					Renewable Source						Grand Total
		Thermal	Hydro	Bhutan Import	Nuclear	Conventional Total	Wind	Solar	Bio Power	Small Hydro	Others	Renewable Energy Total	
1	A&N Islands	214.57				214.57	0.00	23.94	0.00	13.94	0.00	37.88	252.45
2	Andhra Pradesh	61541.93	3747.58			65289.51	7426.46	8140.72	154.79	410.90	279.04	16411.91	81701.42

3	Arunachal Pradesh	0.00	4820.94			4820.94	0.00	22.27	0.00	2.55	0.03	24.85	4845.79
4	Assam	8393.08	481.60			8874.68	0.00	216.35	0.00	62.66	0.00	279.01	9153.69
5	Bhutan	0.00		6742.40		6742.40			0.00			0.00	6742.40
6	Bihar	55200.21				55200.21	0.00	169.53	106.68	12.63	0.00	288.85	55489.06
7	Chhatisgarh	142599.20	237.37			142836.57	0.00	635.42	1211.71	155.92	0.00	2003.05	144839.62
8	Delhi	3784.30				3784.30	0.00	236.11	0.00	0.00	294.09	530.20	4314.50
9	Goa	0.00				0.00	0.00	14.87	0.00	0.00	5.09	19.96	19.96
10	Gujarat	55481.62	6133.14		3639.91	65254.67	19206.22	10335.32	5.76	213.10	2.24	29762.63	95017.30
11	Haryana	32139.27				32139.27	0.00	555.20	559.08	241.90	63.55	1419.73	33559.00
12	Himachal Pradesh	0.00	38666.98			38666.98	0.00	58.76	0.00	2854.07	0.00	2912.83	41579.81
13	Jammu and Kashmir	0.00	16777.42			16777.42	0.00	0.00	0.00	393.20	0.00	393.20	17170.62
14	Jharkhand	30472.78	305.47			30778.25	0.00	19.70	0.00	2.40	0.00	22.10	30800.35
15	Karnataka	35014.30	13157.34		7443.24	55614.88	9967.89	14153.79	3144.20	2308.59	0.00	29574.48	85189.36
16	Kerala	0.12	7989.00			7989.12	179.32	879.75	62.85	824.34	0.00	1946.26	9935.38
17	Ladakh	0.00	402.78			402.78	0.00	0.00	0.00	0.00	0.00	0.00	402.78
18	Lakshadweep	15.02				15.02	0.00	0.10	0.00	0.00	0.00	0.10	15.12
19	Madhya Pradesh	135838.47	7309.07			143147.54	4486.72	3839.30	151.80	357.97	36.93	8872.72	152020.26
20	Maharashtra	126907.03	5894.29		8985.48	141786.80	7243.06	4387.85	4808.51	766.73	0.44	17206.59	158993.39
21	Manipur	0.00	477.98			477.98	0.00	8.17	0.00	0.00	0.63	8.79	486.77
22	Meghalaya	0.00	980.25			980.25	0.00	0.00	0.00	72.16	0.00	72.16	1052.41
23	Mizoram	0.00	204.13			204.13	0.00	3.21	0.00	59.06	0.00	62.27	266.40
24	Nagaland	0.00	177.37			177.37	0.00	0.00	0.00	111.95	0.00	111.95	289.32
25	Odisha	64874.24	5462.81			70337.05	0.00	706.24	60.95	424.92	0.00	1192.10	71529.15
26	Puducherry	233.07				233.07	0.00	12.24	0.00	0.00	0.00	12.24	245.31
27	Punjab	31506.16	4399.65			35905.81	0.00	2778.66	708.45	682.48	0.00	4169.58	40075.39
28	Rajasthan	57418.72	967.43		6587.27	64973.42	6111.41	34474.43	397.05	7.17	0.00	40990.05	105963.47
29	Sikkim	0.00	11696.79			11696.79	0.00	0.00	0.00	12.35	0.00	12.35	11709.14
30	Tamil Nadu	67083.23	5965.77		16012.57	89061.57	16913.85	9419.39	996.49	296.71	0.00	27626.45	116688.02
31	Telangana	50738.20	6010.07			56748.27	279.23	6745.46	154.42	91.71	159.08	7429.89	64178.16
32	Tripura	7079.48				7079.48	0.00	6.58	0.00	0.00	0.00	6.58	7086.06
33	Uttar Pradesh	152063.22	974.04		3192.62	156229.88	0.00	3674.02	3250.02	234.69	58.45	7217.18	163447.06
34	Uttarakhand	0.00	15435.77			15435.77	0.00	331.80	248.52	352.07	0.00	932.39	16368.16
35	West Bengal	87612.45	3423.73			91036.18	0.00	125.04	0.00	204.44	1629.64	1959.12	92995.30

36	Chandigarh	0.00					0.00	12.61	0.00	0.00	0.00	12.61	12.61
37	Dadra and Nagar Haveli and Daman and Diu	0.00					0.00	27.40	3.22	0.00	0.00	30.62	30.62
Grand Total		1206210.67	162098.77	6742.40	45861.09	1420912.93	71814.16	102014.24	16024.48	11170.61	2529.18	203552.68	1624465.61

FY 2023-24

(In Million Units)

Sl. No.	State/UT	Conventional Sources					Renewable Source						Grand Total
		Thermal	Hydro	Bhutan Import	Nuclear	Conventional Total	Wind	Solar	Bio Power	Small Hydro	Others	Renewable Energy Total	
1	A&N Islands	335.79				335.79	0.00	27.50	0.00	12.00	0.00	39.50	375.29
2	Andhra Pradesh	71243.65	1373.19			72616.84	8644.00	8300.03	85.38	127.10	307.97	17464.48	90081.32
3	Arunachal Pradesh	0.00	4278.18			4278.18	0.00	1.89	0.00	0.66	0.00	2.55	4280.73
4	Assam	8433.38	614.70			9048.08	0.00	316.31	0.00	64.20	0.75	381.26	9429.34
5	Bhutan	0.00		4716.10		4716.10			0.00			0.00	4716.10
6	Bihar	58361.80				58361.80	0.00	195.19	140.98	5.92	0.00	342.08	58703.88
7	Chhatisgarh	162388.63	321.76			162710.39	0.00	943.75	1388.15	145.54	0.00	2477.44	165187.83
8	Delhi	3755.14				3755.14	0.00	206.53	0.00	0.00	522.28	728.81	4483.95
9	Goa	0.00				0.00	0.00	59.99	0.00	0.00	7.96	67.95	67.95
10	Gujarat	84782.49	4556.33		7576.86	96915.68	24794.50	13468.91	2.13	217.68	0.00	38483.22	135398.90
11	Haryana	28197.43				28197.43	0.00	992.91	377.72	222.05	58.82	1651.50	29848.93
12	Himachal Pradesh	0.00	36365.85			36365.85	0.00	59.54	0.00	2526.98	0.00	2586.52	38952.37
13	Jammu and Kashmir	0.00	15874.24			15874.24	0.00	0.00	0.00	408.69	0.00	408.69	16282.93
14	Jharkhand	35764.81	196.80			35961.61	0.00	17.64	0.00	5.52	0.00	23.16	35984.77
15	Karnataka	44466.58	8973.17		7502.65	60942.40	10950.20	15404.09	2801.51	1370.76	0.00	30526.55	91468.95
16	Kerala	0.00	5155.72			5155.72	214.53	1195.28	78.08	716.31	0.04	2204.24	7359.96
17	Ladakh	0.00	388.48			388.48	0.00	0.00	0.00	0.00	0.00	0.00	388.48
18	Lakshadweep	64.79				64.79	0.00	0.09	0.00	0.00	0.00	0.09	64.88

19	Madhya Pradesh	148680.03	6444.78			155124.81	4949.78	4025.19	181.63	469.60	28.83	9655.02	164779.83
20	Maharashtra	136895.63	5264.49		8112.38	150272.50	8228.97	5814.13	3800.43	888.48	33.40	18765.41	169037.91
21	Manipur	0.00	298.18			298.18	0.00	7.73	0.00	0.00	1.23	8.96	307.14
22	Meghalaya	0.00	808.58			808.58	0.00	0.00	0.00	66.55	0.00	66.55	875.13
23	Mizoram	0.00	118.63			118.63	0.00	3.19	0.00	95.93	0.00	99.11	217.74
24	Nagaland	0.00	165.47			165.47	0.00	0.00	0.00	81.14	0.00	81.14	246.61
25	Odisha	66019.81	6162.20			72182.01	0.00	757.69	96.07	407.97	0.00	1261.72	73443.73
26	Puducherry	224.10				224.10	0.00	12.24	0.00	0.00	0.00	12.24	236.34
27	Punjab	32462.85	4676.42			37139.27	0.00	2673.99	811.43	636.97	0.00	4122.40	41261.67
28	Rajasthan	61622.70	1013.97		7059.67	69696.34	8390.67	38363.28	387.55	7.45	0.00	47148.96	116845.30
29	Sikkim	0.00	8609.85			8609.85	0.00	0.00	0.00	12.35	0.00	12.35	8622.20
30	Tamil Nadu	75333.82	3563.28		14811.22	93708.32	16908.08	11737.48	751.75	206.00	0.00	29603.31	123311.63
31	Telangana	56913.73	1243.29			58157.02	304.63	6884.68	105.64	58.87	155.29	7509.10	65666.12
32	Tripura	6353.31				6353.31	0.00	7.01	0.00	0.00	0.00	7.01	6360.32
33	Uttar Pradesh	154124.72	850.64		2874.63	157849.99	0.00	3971.31	2970.20	175.24	84.85	7201.59	165051.58
34	Uttarakhand	609.78	13919.23			14529.01	0.00	331.80	248.52	350.62	0.00	930.94	15459.95
35	West Bengal	89513.96	2816.49			92330.45	0.00	168.32	2.49	204.46	1545.13	1920.39	94250.84
36	Chandigarh	0.00					0.00	11.70	0.00	0.00	0.00	11.70	11.70
37	Dadra and Nagar Haveli and Daman and Diu	0.00					0.00	15.74	13.12	0.00	0.00	28.86	28.86
Grand Total		1326548.93	134053.92	4716.10	47937.41	1513256.36	83385.35	115975.11	14242.78	9485.04	2746.55	225834.83	1739091.19

Note : Generation from Conventional Thermal, Hydro and Nuclear sources is from stations of capacity 25 MW and above.

Source: Central Electricity Authority (CEA)

Annexure-III referred to in reply of parts (c) & (d) of the Rajya Sabha Unstarred Question No. 944 to be answered on 11.02.2025

The Government of India has taken several steps and initiatives to promote and accelerate renewable energy capacity in the country to realize the commitment of 500 GW non-fossil energy capacity by 2030. These include, inter-alia, the following:

- Ministry of New & Renewable Energy (MNRE) has issued Bidding Trajectory for issuance of RE power procurement bids of 50 GW/annum by Renewable Energy Implementing Agencies(REIAs) [REIAs: Solar Energy Corporation of India Limited (SECI), NTPC Limited, NHPC Limited, SJVN Limited] from FY 2023-24 to FY 2027-28.
- Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.
- Inter State Transmission System (ISTS) charges have been waived for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025, for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- To boost RE consumption, Renewable Purchase Obligation (RPO) followed by Renewable Consumption Obligation (RCO) trajectory has been notified till 2029-30. The RCO which is applicable to all designated consumers under the Energy Conservation Act 2001 will attract penalties on non-compliance. RCO also includes specified quantum of consumption from Decentralized Renewable Energy sources.
- Project Development Cell for attracting and facilitating investments has been set up.
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Dispatchable RE (FDRE) projects have been issued.
- Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), PM Surya Ghar Muft Bijli Yojana, National Programme on High Efficiency Solar PV Modules, National Green Hydrogen Mission, Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects have been launched.
- Scheme for setting up of Solar Parks and Ultra Mega Solar Power projects is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.
- Laying of new transmission lines and creating new sub-station capacity has been funded under the Green Energy Corridor Scheme for evacuation of renewable power.
- Electricity (Rights of Consumers) Rules, 2020 has been issued for net-metering up to five hundred Kilowatt or up to the electrical sanctioned load, whichever is lower.

- “National Repowering and Life Extension Policy for Wind Power Projects, 2023” has been issued.
- “Strategy for Establishments of Offshore Wind Energy Projects” has been issued indicating a bidding trajectory of 37 GW by 2030 and various business models for project development.
- The Offshore Wind Energy Lease Rules, 2023 have been notified vide Ministry of External Affairs notification dated 19th December 2023, to regulate the grant of lease of offshore areas for development of offshore wind energy projects.
- Standard & Labelling (S&L) programs for Solar Photovoltaic modules and Grid-connected Solar Inverters have been launched.
- To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2030.
- “The Electricity (Late Payment Surcharge and related matters) Rules (LPS rules) have been notified.
- Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022, has been notified on 06th June 2022 with objective of ensuring access to affordable, reliable, and sustainable green energy for all. Green Energy Open Access is allowed to any consumer with contract demand of 100 kW or above through single or multiple single connection aggregating Hundred kW or more located in same electricity division of a distribution licensee.
- Green Term Ahead Market (GTAM) has been launched to facilitate sale of Renewable Energy Power through exchanges.
- 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.