GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY

LOK SABHA UNSTARRED QUESTION NO. 803

ANSWERED ON 02.12.2021

PRODUCTION OF NEW AND RENEWABLE ENERGY

803.SHRI JAYANT SINHA

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

- (a) the details of installed grid capacity and production under various new and renewable energy projects, State-wise:
- (b) the details of percentage of annual energy requirement that is fulfilled by new and renewable energy; and
- (c) the details of current and upcoming new and renewable energy projects in Jharkhand?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER (SHRI R.K. SINGH)

- (a) The state wise details of installed renewable energy capacity and electricity generation (including large hydro) in the country are given in **Annexure I and II** respectively.
- (b) The share of renewable energy (including large hydro) in the total electricity generation of the country is around 24% for the year 2021-22(upto August' 2021).
- (c) As per information provided by Jharkhand Renewable Energy Development Agency (JREDA), the details of current new and renewable energy project undertaken in the state of Jharkhand, are as follows.
 - i. Installation of 7 MW of grid connected solar rooftop Power plants on various State Government building.
 - ii. Work Order issued for Installation of 7590 nos. of Standalone Solar Pumping System under Component B of PMKUSUM scheme. Out of which JREDA has completed installation of 6325 Nos. for irrigation purpose across the State.
- iii. Installation of 8000 nos. of Solar Street lights at various locations in state.
- iv. Installation of 100 nos. of Solar High Mast systems at various locations in state.
- v. Installation of 2253 nos. of Solar Home Lighting systems at various locations in state.
- vi. Execution of 2 MWp Canaltop Solar Power Plant at Sikidri Canal, Ranchi.
- vii. Installation of 600 kWp grid connected rooftop solar power plants each at the airports of Deoghar, Bokaro, Girdih, Dumka, Dhanbad.
- viii. Installation of 24 nos. of Solar Cold Storage Systems.

Further, the details of proposed new and renewable energy projects in the state of Jharkhand are as follows:-

- i. Installation of 7.5 MWp Grid connected rooftop Power plants on various Governments building.
- ii. Installation of 10,000 nos. of Standalone Solar Pumping System under Component B of PM-KUSUM scheme for irrigation purpose across the State.
- iii. Plan to develop one Solar City with 41 MWp cumulative capacity of Solar Power Plant.
- iv. Installation of 200 nos. of Solar High Mast systems at various locations in state.
- v. Execution of Rural Electrification Works of 07 Villages in districts in Jharkhand through cumulative capacity of 583 kWp Solar Photovoltaic Power Plants (Mini/Micro off-Grid) with distribution network & Connection.
- vi. Development of Solar parks of cumulative capacity of 80 MWp at four locations in the state of Jharkhand.

Annexure-I referred to in reply to part (a) of Lok Sabha Un-starred Question No. 803 for 2/12/2021 regarding 'Production of New and Renewable Energy

Details of cumulative installed capacity under various renewable energy sources (including large hydro) as on 31-10-2021

No. States/OTS Hydro Power (MW) White Fower (MW) 1 Andhra Pradesh 162.11 4096.65 2 Arunachal Pradesh 131.105 3 Assam 34.11 4 Bihar 70.70 5 Chhatisgarh 76.00 6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland <t< th=""><th>(MW) 536.04 0.00 2.00 125.70 275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80 0.00</th><th>(MW) 4380.71 11.23 68.55 190.52 501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16 4.08</th><th>(MW) 1610.00 1115.00 350.00 120.00 1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00 322.00</th></t<>	(MW) 536.04 0.00 2.00 125.70 275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80 0.00	(MW) 4380.71 11.23 68.55 190.52 501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16 4.08	(MW) 1610.00 1115.00 350.00 120.00 1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00 322.00
1 Andhra Pradesh 162.11 4096.65 2 Arunachal Pradesh 131.105 3 Assam 34.11 4 Bihar 70.70 5 Chhatisgarh 76.00 6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	536.04 0.00 2.00 125.70 275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	4380.71 11.23 68.55 190.52 501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	1610.00 1115.00 350.00 120.00 120.00 1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
2 Arunachal Pradesh 131.105 3 Assam 34.11 4 Bihar 70.70 5 Chhatisgarh 76.00 6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 5012.83 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	0.00 2.00 125.70 275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	11.23 68.55 190.52 501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	1115.00 350.00 120.00 1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
3 Assam 34.11 4 Bihar 70.70 5 Chhatisgarh 76.00 6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	2.00 125.70 275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	68.55 190.52 501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	350.00 120.00 1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
4 Bihar 70.70 5 Chhatisgarh 76.00 6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	125.70 275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	190.52 501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	120.00 1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
5 Chhatisgarh 76.00 6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	275.00 0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	501.58 18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
6 Goa 0.05 7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	0.34 99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	18.49 6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	1990.00 10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
7 Gujarat 82.69 8952.92 8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	99.88 218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	6092.69 739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
8 Haryana 73.50 9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	218.00 10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	739.05 62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	10065.00 3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
9 Himachal Pradesh 949.31 10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	10.20 0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	62.67 46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
10 Jammu & Kashmir 146.34 11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	0.00 4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	46.87 86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	3360.00 210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
11 Jharkhand 4.05 12 Karnataka 1280.73 5039.40 13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	4.30 1902.15 2.50 0.00 128.00 2632.15 0.00 13.80	86.62 7512.01 326.89 7.80 2673.64 2540.63 12.16	210.00 3689.20 1856.50 89.00 2235.00 3047.00 105.00
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13 Kerala 238.02 62.50 14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	2.50 0.00 128.00 2632.15 0.00 13.80	326.89 7.80 2673.64 2540.63 12.16	1856.50 89.00 2235.00 3047.00 105.00
14 Ladakh 39.64 15 Madhya Pradesh 99.71 2519.89 16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	0.00 128.00 2632.15 0.00 13.80	7.80 2673.64 2540.63 12.16	89.00 2235.00 3047.00 105.00
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16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	2632.15 0.00 13.80	2540.63 12.16	3047.00 105.00
16 Maharashtra 380.58 5012.83 17 Manipur 5.45 18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	0.00 13.80	12.16	105.00
18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	13.80		
18 Meghalaya 32.53 19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82		4.08	322.00
19 Mizoram 36.47 20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82			
20 Nagaland 30.67 21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82		7.88	60.00
21 Odisha 100.63 22 Punjab 174.35 23 Rajasthan 23.85 4326.82	0.00	3.04	75.00
22 Punjab 174.35 23 Rajasthan 23.85 4326.82	59.22	430.49	2142.25
23 Rajasthan 23.85 4326.82	491.65	1093.67	1096.30
3	125.08	8911.26	411.00
	0.00	4.63	2282.00
25 Tamil Nadu 123.05 9846.69	1039.91	4738.23	2178.20
26 Telangana 90.87 128.10	219.33	4036.59	2405.60
27 Tripura 16.01	0.00	14.86	
28 Uttar Pradesh 49.10	2179.67	2032.44	501.60
29 Uttarakhand 214.32	139.44	552.67	3855.35
30 West Bengal 98.50	321.09	163.90	1341.20
31 Andaman & Nicobar 5.25	0.00	29.49	1541.20
32 Chandigarh	0.00	53.45	
Dadar & Nagar	0.00	33.43	
33 Haveli	0.00	5.46	
34 Daman & Diu	0.00	40.72	
35 Delhi	52.00	211.12	
36 Lakshwadeep	0.00	3.27	
37 Pondicherry	0.00	11.52	
38 Others 4.30	0.00	45.01	
Total (MW) 4821.81 39990.10		47665.89	46512.20

Annexure-II referred to in reply to part (a) of Lok Sabha Un-starred Question No. 803 for 2/12/2021 regarding 'Production of New and Renewable Energy'

State-wise Renewable Energy Generation (including large hydro) for the year 2021-22(up to September 21)

(In Million Units)

(In Million				
Name of State/UT	RE Generation(excluding large hydro)	Large Hydro Generation	Total RE Generation including Large Hydro	
Chandigarh	7.28	0.00	7.28	
Delhi	216.47	0.00	216.47	
Haryana	461.54	0.00	461.54	
Himachal Pradesh	1265.04	26221.04	27486.08	
J & K	281.11	11945.45	12226.56	
Ladakh	0.00	289.02	289.02	
Punjab	1872.28	2139.99	4012.27	
Rajasthan	11471.19	52.43	11523.62	
Uttar Pradesh	2090.90	679.18	2770.08	
Uttarakhand	430.02	8367.86	8797.88	
Chhattisgarh	966.29	229.91	1196.20	
Gujarat	13999.51	1418.46	15417.97	
Madhya Pradesh	4954.70	2378.23	7332.93	
Maharashtra	7986.93	3141.87	11128.80	
Dadra and Nagar Haveli	20.55	0.00	20.55	
Daman & Diu	22.73	0.00	22.73	
Goa	0.64	0.00	0.64	
Andhra Pradesh	9536.16	1355.81	10891.97	
Telangana	3530.12	3238.55	6768.67	
Karnataka	15512.18	6822.22	22334.40	
Kerala	829.04	4557.64	5386.68	
Tamil Nadu	16469.81	2457.83	18927.64	
Lakshadweep	0.15	0.00	0.15	
Puducherry	6.12	0.00	6.12	
Andaman Nicobar	16.33	0.00	16.33	
Bihar	86.05	0.00	86.05	
Jharkhand	9.18	373.74	382.92	
Orissa	555.21	2930.72	3485.93	
Sikkim	6.18	8117.33	8123.51	
West Bengal	891.10	1980.29	2871.39	
Arunachal Pradesh	1.03	2706.63	2707.66	
Assam	53.39	464.24	517.63	
Manipur	3.42	265.85	269.27	
Meghalaya	21.75	562.45	584.20	
Mizoram	9.11	39.70	48.81	
Nagaland	30.89	70.07	100.96	
Tripura	4.31	0.00	4.31	
All India Total	93618.70	92806.51	186425.21	