**GOVERNMENT OF INDIA**
**MINISTRY OF POWER**

**LOK SABHA**
**UNSTARRED QUESTION NO.2781**
**TO BE ANSWERED ON 05.08.2021**

# POWER GENERATION CAPACITY

**†2781. SHRI NARENDRA KUMAR:**

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

**(a) the details of the existing power generation capacity and the sources thereof;**

**(b) the details of future work plan in this regard;**

**(c) the targets fixed for the clean power sector;**

**(d) the measures taken by the Government to become self-reliant in pollution free power generation and to be free from coal and other polluting elements;**

**(e) the quantity of electricity produced in the country, State-wise including Rajasthan; and**

**(f) the demand of electricity along with the measures taken to meet such demand, State-wise including Rajasthan?**

**A N S W E R**

**THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY**

**( SHRI R.K. SINGH)**

**(a) : As on 30.06.2021, the Installed Generation Capacity is 384115.94 MW comprising of 234058.22 MW of Thermal, 46322.22 MW of Hydro, 96955.51 MW of Renewable Energy Sources (RES) and 6780 MW of Nuclear. The source wise details are given at Annexure-I.**

**(b) & (c) : The details of the future generation capacity plans and targets for clean power are as under:**

**(i) Conventional power generation capacity to be commissioned by 2024-25 is at various stages of construction in the country which includes Thermal 36,765 MW, Hydro 10,164.50 MW and Nuclear 4,800 MW.**

**(ii) Government of India have set a target of 1,75,000 MW installed capacity from renewable sources by the end of 2021-22 which includes 1,00,000 MW from Solar, 60,000 MW from Wind, 10,000 MW from Biomass and 5,000 MW from small hydro.**

**(d) :** **The following measures are taken by the Government to become self-reliant in pollution free power generation and to be free from coal and other polluting elements:**

**(i)** **India has committed to cut its greenhouse gas (GHG) emissions intensity of its Gross Domestic Product (GDP) by 33 to 35 percent by 2030 from 2005 levels, and achieve about 40 percent it's cumulative electric power installed capacity from non-fossil fuel based resources by 2030.**

**(ii)** **Thermal power plants are taking various measures like upgradation of Electrostatic precipitators (ESP), installation of flue gas desulfurization (FGD) system and combustion modification to comply with Suspended Particulate Matter (SPM), SO2 and NOx norms.**

**(e) :** **Details of power generation from Conventional fuel sources (Thermal, Hydro & Nuclear) of 25 MW and above in the country, State-wise including Rajasthan, during the last year 2020-21 & current year (upto June 2021) are at Annexure-II.**

**Details of State-wise generation from Renewable Energy Sources during the last year 2020-21 and current year (Up to June, 2021) is at Annexure-III.**

**(f) :** **The details of the State/UT-wise Power Supply Position in the country including Rajasthan, during the last year i.e. 2020-21 and the current year i.e. 2021-22 (upto June, 2021) are at Annexure-IV.**

**The States/UTs meet their respective energy requirement from various sources such as their own generation, share from Inter-State Generating Stations which also includes Central Sector Generating Stations, procuring power on bilateral basis and through Power Exchanges etc.**

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2781 TO BE ANSWERED IN THE LOK SABHA ON 05.08.2021**

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**Source-wise break up of All India Installed Capacity**

**(in MW)**

| | Source-wise breakup | | | | | | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|
| | Thermal | | | | | Nuclear | Hydro | RES | |
| | Coal | Lignite | Gas | Diesel | Total | | | | |
| Capacity | 202004.50 | 6620.00 | 24924.01 | 509.71 | 234058.22 | 6780.00 | 46322.22 | 96955.51 | 384115.94 |
| % Share | 52.59 | 1.72 | 6.49 | 0.13 | 60.93 | 1.77 | 12.06 | 25.24 | 100.00 |

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**ANNEXURE-II**

## ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 2781 TO BE ANSWERED IN THE LOK SABHA ON 05.08.2021

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**Details of power generation from Conventional fuel sources (Thermal, Hydro & Nuclear) of 25 MW and above in the country, State-Wise including Rajasthan, during the last year 2020-21 & current year (upto June 2021)**

| STATE | Generation (MU) | |
|---|---|---|
| | 2021-22 (upto-June 21)* | 2020-21 |
| ANDAMAN NICOBAR | 24.47 | 118.48 |
| ANDHRA PRADESH | 13450.93 | 52749.07 |
| ARUNACHAL PRADESH | 988.01 | 3451.34 |
| ASSAM | 1927.54 | 5969.01 |
| Bhutan (IMP) | 1866.04 | 8765.50 |
| BIHAR | 10592.82 | 33866.14 |
| CHHATTISGARH | 36900.32 | 135033.69 |
| DELHI | 1382.81 | 5304.01 |
| GOA | 0.00 | 0.00 |
| GUJARAT | 19626.37 | 103882.32 |
| HARYANA | 4702.00 | 14896.38 |
| HIMACHAL PRADESH | 9325.51 | 37473.47 |
| JAMMU AND KASHMIR | 5417.87 | 17002.68 |
| JHARKHAND | 7666.24 | 27443.06 |
| KARNATAKA | 11047.74 | 39542.51 |
| KERALA | 2065.06 | 6737.63 |
| LADAKH | 103.05 | 376.21 |
| MADHYA PRADESH | 32976.37 | 129567.11 |
| MAHARASHTRA | 34605.28 | 117572.34 |
| MANIPUR | 81.47 | 621.62 |
| MEGHALAYA | 197.53 | 1151.99 |
| MIZORAM | 8.00 | 158.85 |
| NAGALAND | 13.12 | 203.86 |
| ODISHA | 15304.67 | 62066.44 |
| PUDUCHERRY | 62.27 | 232.15 |
| PUNJAB | 6216.26 | 22741.82 |
| RAJASTHAN | 12816.37 | 54090.95 |
| SIKKIM | 2984.44 | 10879.50 |
| TAMIL NADU | 20460.39 | 70077.48 |
| TELANGANA | 13064.97 | 48406.14 |
| TRIPURA | 1157.19 | 7043.21 |
| UTTAR PRADESH | 33819.01 | 126920.87 |
| UTTARAKHAND | 3229.48 | 14314.46 |
| WEST BENGAL | 21639.91 | 75947.35 |
| Grand Total | 325723.51 | 1234607.64 |

*PROVISIONAL BASED ON ACTUAL-CUM-ASSESMENT

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

2. Ladakh Separated From J&K From 2019-20.

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**ANNEXURE-III**

## ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 2781 TO BE ANSWERED IN THE LOK SABHA ON 05.08.2021

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**Details of State-wise generation from Renewable Energy Sources during the last year 2020-21 and current year (upto June, 2021)**

| Name of State/UT | Year 2020-21 | Year 2021-22 (Upto June 2021) |
|---|---|---|
| Chandigarh | 10.16 | 4.29 |
| Delhi | 426.70 | 90.15 |
| Haryana | 760.75 | 218.22 |
| Himachal Pradesh | 2160.30 | 311.51 |
| J & K | 439.29 | 151.91 |
| Ladakh | 0.00 | 0.00 |
| Punjab | 2864.47 | 803.29 |
| Rajasthan | 16516.35 | 5509.03 |
| Uttar Pradesh | 5747.78 | 1328.52 |
| Uttarakhand | 1236.85 | 215.01 |
| Northern Region | 30162.65 | 8631.93 |
| Chhattisgarh | 1633.89 | 440.85 |
| Gujarat | 17976.99 | 6807.11 |
| Madhya Pradesh | 8517.85 | 2617.65 |
| Maharashtra | 14232.49 | 4028.98 |
| Dadra and Nagar Haveli | 11.96 | 9.85 |
| Daman & Diu | 40.04 | 12.86 |
| Goa | 1.46 | 0.35 |
| Western Region | 42414.69 | 13917.65 |
| Andhra Pradesh | 14133.82 | 4503.92 |
| Telangana | 6933.09 | 1916.84 |
| Karnataka | 27850.31 | 6641.39 |
| Kerala | 1092.11 | 347.13 |
| Tamil Nadu | 21658.97 | 6522.02 |
| Lakshadweep | 0.45 | 0.10 |
| Puducherry | 6.39 | 3.06 |
| Southern Region | 71675.14 | 19934.45 |
| Andaman Nicobar | 39.51 | 7.67 |
| Bihar | 226.61 | 40.71 |
| Jharkhand | 26.47 | 5.07 |
| Odisha | 877.77 | 238.79 |
| Sikkim | 55.96 | 3.09 |
| West Bengal | 1530.69 | 433.33 |
| Eastern Region | 2757.01 | 728.66 |
| Arunachal Pradesh | 2.10 | 0.53 |
| Assam | 51.51 | 22.90 |
| Manipur | 7.71 | 1.37 |
| Meghalaya | 56.79 | 10.27 |
| Mizoram | 33.52 | 0.75 |
| Nagaland | 70.77 | 3.22 |
| Tripura | 15.62 | 3.09 |
| North Eastern Region | 238.02 | 42.15 |
| All India Total | 147247.51 | 43254.84 |

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**ANNEXURE-IV**

# ANNEXURE REFERRED TO IN REPLY TO PART (f) OF UNSTARRED QUESTION NO. 2781 TO BE ANSWERED IN THE LOK SABHA ON 05.08.2021

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**Details of the State/UT- wise Power Supply Position in the country including Rajasthan, during the last year i.e. 2020-21 and the current year i.e. 2021-22 (upto June, 2021)**

| State / System / Region | April, 2021 - June,2021 | | | | April, 2020 - March,2021 | | | |
|---|---|---|---|---|---|---|---|---|
| | Energy Requirement | Energy Supplied | Energy not Supplied | | Energy Requirement | Energy Supplied | Energy not Supplied | |
| | ( MU ) | ( MU ) | ( MU ) | (%) | ( MU ) | ( MU ) | ( MU ) | ( % ) |
| Chandigarh | 400 | 400 | 0 | 0.0 | 1,523 | 1,523 | 0 | 0.0 |
| Delhi | 7,856 | 7,854 | 1 | 0.0 | 29,560 | 29,555 | 4 | 0.0 |
| Haryana | 13,629 | 13,609 | 20 | 0.1 | 53,161 | 53,108 | 53 | 0.1 |
| Himachal Pradesh | 2,742 | 2,737 | 5 | 0.2 | 10,186 | 10,130 | 56 | 0.5 |
| UT of J&K and Ladakh | 5,086 | 4,674 | 412 | 8.1 | 19,773 | 17,222 | 2,551 | 12.9 |
| Punjab | 15,400 | 15,344 | 56 | 0.4 | 58,445 | 58,377 | 67 | 0.1 |
| Rajasthan | 20,448 | 20,418 | 30 | 0.1 | 85,311 | 85,205 | 106 | 0.1 |
| Uttar Pradesh | 32,788 | 32,457 | 331 | 1.0 | 124,367 | 123,383 | 984 | 0.8 |
| Uttarakhand | 3,543 | 3,538 | 5 | 0.2 | 13,827 | 13,818 | 8 | 0.1 |
| Northern Region | 101,892 | 101,031 | 861 | 0.8 | 396,151 | 392,323 | 3,829 | 1.0 |
| Chhattisgarh | 7,872 | 7,870 | 2 | 0.0 | 30,472 | 30,449 | 22 | 0.1 |
| Gujarat | 30,721 | 30,721 | 0 | 0.0 | 111,622 | 111,622 | 0 | 0.0 |
| Madhya Pradesh | 19,222 | 19,222 | 0 | 0.0 | 83,437 | 83,437 | 0 | 0.0 |
| Maharashtra | 43,707 | 43,707 | 0 | 0.0 | 150,679 | 150,663 | 16 | 0.0 |
| Daman & Diu | 617 | 617 | 0 | 0.0 | 2,223 | 2,223 | 0 | 0.0 |
| Dadar Nagar Haveli | 1,591 | 1,591 | 0 | 0.0 | 5,497 | 5,497 | 0 | 0.0 |
| Goa | 1,143 | 1,143 | 0 | 0.0 | 4,083 | 4,083 | 0 | 0.0 |
| Western Region | 104,872 | 104,871 | 2 | 0.0 | 388,013 | 387,975 | 38 | 0.0 |
| Andhra Pradesh | 17,756 | 17,746 | 9 | 0.1 | 62,080 | 62,076 | 4 | 0.0 |
| Telangana | 16,517 | 16,516 | 1 | 0.0 | 66,998 | 66,994 | 4 | 0.0 |
| Karnataka | 18,274 | 18,273 | 1 | 0.0 | 68,851 | 68,831 | 19 | 0.0 |
| Kerala | 6,489 | 6,485 | 4 | 0.1 | 25,118 | 25,102 | 16 | 0.1 |
| Tamil Nadu | 28,615 | 28,614 | 1 | 0.0 | 101,194 | 101,189 | 5 | 0.0 |
| Puducherry | 761 | 761 | 0 | 0.0 | 2,644 | 2,644 | 0 | 0.0 |
| Lakshadweep # | 15 | 15 | 0 | 0.0 | 56 | 56 | 0 | 0.0 |
| Southern Region | 88,412 | 88,395 | 17 | 0.0 | 326,885 | 326,836 | 48 | 0.0 |
| Bihar | 9,421 | 9,375 | 46 | 0.5 | 34,171 | 34,018 | 153 | 0.4 |
| DVC | 5,819 | 5,819 | 0 | 0.0 | 21,368 | 21,368 | 0 | 0.0 |
| Jharkhand | 2,635 | 2,577 | 57 | 2.2 | 9,953 | 9,675 | 278 | 2.8 |
| Odisha | 9,184 | 9,184 | 0 | 0.0 | 29,848 | 29,848 | 0 | 0.0 |
| West Bengal | 14,674 | 14,648 | 26 | 0.2 | 51,644 | 51,543 | 100 | 0.2 |
| Sikkim | 136 | 136 | 0 | 0.0 | 546 | 546 | 0 | 0.0 |
| Andaman- Nicobar # | 87 | 81 | 6 | 6.7 | 346 | 323 | 23 | 6.7 |
| Eastern Region | 41,869 | 41,739 | 129 | 0.3 | 147,530 | 146,999 | 531 | 0.4 |
| Arunachal Pradesh | 188 | 188 | 1 | 0.3 | 719 | 714 | 5 | 0.7 |
| Assam | 2,697 | 2,679 | 19 | 0.7 | 10,192 | 9,815 | 377 | 3.7 |
| Manipur | 227 | 226 | 1 | 0.4 | 974 | 969 | 5 | 0.5 |
| Meghalaya | 490 | 477 | 13 | 2.7 | 2,031 | 2,005 | 26 | 1.3 |
| Mizoram | 157 | 155 | 2 | 1.3 | 728 | 723 | 4 | 0.6 |
| Nagaland | 206 | 205 | 1 | 0.3 | 826 | 822 | 4 | 0.5 |
| Tripura* | 407 | 407 | 0 | 0.1 | 1,484 | 1,481 | 3 | 0.2 |
| North-Eastern Region | 4,372 | 4,336 | 36 | 0.8 | 16,955 | 16,531 | 424 | 2.5 |
| All India | 341,418 | 340,372 | 1,046 | 0.3 | 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 supply.**

*** Excludes the supply 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.**

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