GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY RAJYA SABHA UNSTARRED QUESTION NO. 1576

ANSWERED ON 20.12.2022

TARGETS AND ACHIEVEMENTS IN POWER GENERATION FROM RENEWABLE ENERGY SOURCES

1576. SHRI NARESH BANSAL

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

- (a) the details of targets set and achievements made in power generation from renewable energy sources in the country, State-wise and source-wise, especially in case of Uttarakhand; and
- (b) whether schemes for development of renewable energy sources have been successful in various States, if so, the details thereof, and if not, the reasons therefor?

ANSWER

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

(a) & (b) 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.

So far, a total of 166.36 GW of renewable energy capacity has been installed in the country as on 30.11.2022 which includes 61.97 GW Solar Power, 41.89 GW Wind Power, 10.73 GW Bio-Power, 4.92 GW Small Hydro Power and 46.85 GW Large Hydro Power.

The source-wise and state-wise details of the renewable energy capacity installed in the country including the state of Uttarakhand as on 30.11.2022 are given in **Annexure-I**.

The details of major renewable energy schemes/ programmes being implemented by the Ministry of New & Renewable Energy in the country to promote renewable energy sources are given in **Annexure-II.**

Implementation of all above schemes/ programmes by the Ministry of New & Renewable Energy have resulted in capacity addition of 83.66 GW of renewable energy from the year 2014-15 to 2022-23 (up to Nov 2022).

Annexure-I referred to in reply to part (a) & (b) of Rajya Sabha Unstarred Question No. 1576 for 20/12/2022 regarding 'Targets and achievements in power generation from renewable energy sources'

| State-wise Installed Capacity of Renewable Power as on 30.11.2022 | | | | | | | |
|---|----------------------|-------------------------|---------------|------------------|--|-------------------------|--------------------------------|
| S. No. | STATES / UTs | Small Hydro Power | Wind Power | Bio Power | Solar Power | Large Hydro Power | Total Installed Capacity |
| | | (MW) | (MW) | (MW) | (MW) | (MW) | (MW) |
| 1 | Andhra Pradesh | 162.11 | 4096.65 | 566.04 | 4508.45 | 1610.00 | 10943.25 |
| 2 | Arunachal Pradesh | 133.11 | | 0.00 | 11.23 | 1115.00 | 1259.34 |
| 3 | Assam | 34.11 | | 2.00 | 147.93 | 350.00 | 534.04 |
| 4 | Bihar | 70.70 | | 126.02 | 192.88 | 2 | 389.60 |
| 5 | Chhatisgarh | 76.00 | | 275.00 | 803.43 | 120.00 | 1274.43 |
| 6 | Goa | 0.05 | | 0.34 | 26.40 | | 26.79 |
| 7 | Gujarat | 89.39 | 9860.62 | 110.73 | 8369.89 | 1990.00 | 20420.63 |
| 8 | Haryana | 73.50 | | 258.88 | 968.67 | | 1301.05 |
| 9 | Himachal Pradesh | 960.71 | | 10.20 | 87.38 | 10263.02 | 11321.31 |
| 10 | Jammu & Kashmir | 144.68 | | 0.00 | 48.90 | 3449.00 | 3642.58 |
| 11 | Jharkhand | 4.05 | | 4.30 | 94.07 | 210.00 | 312.42 |
| 12 | Karnataka | 1280.73 | 5268.15 | 1902.15 | 7879.54 | 3689.20 | 20019.77 |
| 13 | Kerala | 266.52 | 62.50 | 2.50 | 653.96 | 1864.15 | 2849.63 |
| 14 | Ladakh | 40.79 | | 0.00 | 7.80 | 0.00 | 48.59 |
| 15 | Madhya Pradesh | 123.71 | 2844.29 | 131.75 | 2765.57 | 2235.00 | 8100.32 |
| 16 | Maharashtra | 381.08 | 5012.83 | 2636.42 | 3503.09 | 3047.00 | 14580.42 |
| 17 | Manipur | 5.45 | | 0.00 | 12.28 | 105.00 | 122.73 |
| 18 | Meghalaya | 32.53 | | 13.80 | 4.16 | 322.00 | 372.49 |
| 19 | Mizoram | 41.47 | | 0.00 | 8.02 | 60.00 | 109.49 |
| 20 | Nagaland | 31.67 | | 0.00 | 3.04 | 75.00 | 109.71 |
| 21 | Odisha | 115.63 | | 59.22 | 452.71 | 2154.55 | 2782.11 |
| 22 | Punjab | 176.10 | | 498.94 | 1143.41 | 1096.30 | 2914.75 |
| 23 | Rajasthan | 23.85 | 4681.82 | 125.08 | 15626.03 | 411.00 | 20867.78 |
| 24 | Sikkim | 55.11 | | 0.00 | 4.69 | 2282.00 | 2341.80 |
| 25 | Tamil Nadu | 123.05 | 9936.02 | 1042.70 | 6333.46 | 2178.20 | 19613.43 |
| 26 | Telangana | 90.87 | 128.10 | 219.74 | 4640.02 | 2405.60 | 7484.33 |
| 27 | Tripura | 16.01 | | 0.00 | 16.30 | | 32.31 |
| 28 | Uttar Pradesh | 49.10 | | 2192.89 | 2467.78 | 501.60 | 5211.37 |
| 29 | Uttarakhand | 218.82 | | 139.44 | 575.45 | 3975.35 | 4909.06 |
| 30 | West Bengal | 98.50 | | 323.70 | 179.82 | 1341.20 | 1943.22 |
| 31 | Andaman & Nicobar | 5.25 | | 0.00 | 29.91 | | 35.16 |
| 32 | Chandigarh | | | 0.00 | 58.69 | | 58.69 |
| | Dadar & Nagar | | | Mark (1,000,000) | (Securior and the Conference of the Conference o | | |
| 33 | Haveli | | | 0.00 | 5.46 | | 5.46 |
| 34 | Daman & Diu | | | 0.00 | 41.01 | | 41.01 |
| 35 | Delhi | | - | 84.00 | 211.12 | | 295.12 |
| 36 | Lakshwadeep | | | 0.00 | 3.27 | | 3.27 |
| 37 | Pondicherry | | | 0.00 | 35.53 | 2 | 35.53 |
| 38 | Others | | 4.30 | 0.00 | 45.01 | | 49.31 |
| 2.0000000 | Total (MW) | 4924.65 | 41895.28 | 10725.84 | 61966.36 | 46850.17 | 166362.30 |

Annexure-II referred to in reply to part (a) & (b) of Rajya Sabha Unstarred Question No. 1576 for 20/12/2022 regarding 'Targets and achievements in power generation from renewable energy sources'

Details of the ongoing major Renewable Energy Schemes / Programmes

- 1. Scheme for Development of solar parks and Ultra-mega Solar Power Projects with a target of setting up 40,000 MW capacity. Under the scheme, the infrastructure such as land, roads, transmission system (internal and external), pooling stations, water feasibility is developed with all statutory clearances/approvals. Thus the solar project developers have plug and play benefit.
- 2. Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for setting up 12,000 MW grid-connected Solar Photovoltaic (PV) Power Projects by Government Producers with Viability Gap Funding (VGF) support, for self-use or use by Government/Government entities, either directly or through Distribution Companies (DISCOMS).
- 3. Production Linked Incentive scheme 'National Programme on High Efficiency Solar PV Modules' for achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules (Tranche-I & II).
- 4. PM-KUSUM Scheme to promote small Grid Connected Solar Energy Power Plants, stand-alone solar powered agricultural pumps and solarisation of existing grid connected agricultural pumps. The scheme is not only beneficial to the farmers but also States and DISCOMs. States will save on subsidy being provided for electricity to agriculture consumers and DISCOMs get cheaper solar power at tail end saving transmission and distribution losses.
- 5. Rooftop Solar Programme Phase II for grid connected solar rooftop power plants. Under this Programme, subsidy is provided for residential sector and performance linked incentives to DISCOMs for achieving capacity addition in rooftop solar above baseline.
- 6. Green Energy Corridors (GEC): to create intra-state transmission system for renewable energy projects. Central Financial Assistance (CFA) is provided to set up transmission infrastructure for evacuation of Power from Renewable Energy projects in total ten States (considering both the phases of GEC).
 - (i) Intra-State Transmission System Green Energy Corridor Phase-I
 - (ii). Intra-State Transmission System Green Energy Corridor Phase-II
- 7. Waste to Energy Programme : Programme on Energy from Urban, industrial and Agricultural Wastes/Residues
- 8. Biomass Programme: Scheme to Support Manufacturing of Briquettes & Pellets land Promotion of Biomass (non-bagase) based cogeneration in Industries.
- 9. Biogas Programme: for promotion of family type Biogas plants
- 10. Renewable Energy Research and Technology Development (RE-RTD) Programme (Support Programme).
- 11. Human Resource Development Scheme with components such as short term trainings & skill development programmes, fellowships, internships, support to lab upgradation for RE and renewable energy chair.
- 12. Information & Public Awareness (I&PA)