GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY

RAJYA SABHA UNSTARRED QUESTION NO. 300

ANSWERED ON 19.07.2022

IDENTIFICATION OF REGION-SPECIFIC NEEDS AND REQUIREMENTS FOR RENEWABLE ENERGY

300.SHRI SUJEET KUMAR

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

- (a) whether Government has undertaken any research to identify region- specific needs and requirements for Renewable Energy, If so, the details thereof, if not, the reasons therefor; and
- (b) the steps taken to boost employment opportunities in the green energy sector?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a) Ministry has carried out a number of studies to assess the potential of the renewable energy sources in the country. The State-wise estimated renewable energy potential is given in *Annexure*.

Electricity generated from RE sources is mostly injected into the grid, thus contributing to satisfying the overall electricity demand in various parts of the country.

- (b) The Ministry is developing qualified and skilled manpower in Renewable Energy area through its Human Resource Development Programme. The salient components of the programme are as follows:-
- I. Suryamitra Skill Development Programme (Solar PV technician training) was launched by MNRE in 2015 for boosting employment opportunities by creating skilled manpower and for installation, operation and maintenance of solar power projects. A cumulative total of 51331 no. of suryamitras were trained from inception up to May 2022 under this programme out of which 26967 no. of suryamitras got employment.
- II. The Ministry has launched the Jal-Urjamitra Skill Development Programme to train Small Hydro Power Plant Technicians for installation, operation, repair and maintenance of Small Hydro Power Projects.
- III. Vayumitra Skill Development Programme (VSDP) (Phase-1) has been launched for creating skilled and trained manpower for maintenance of Wind power projects.
- IV. Support to educational, training organizations and NGOs to undertake short-term training courses on various aspects of renewable energy, specifically to create trained manpower for system design, installation, operation and maintenance of renewable energy projects.
- V. Ministry is encouraging students to take courses of renewable energy by providing National Renewable Energy Fellowships at M.Tech, M.Sc., and Ph.D levels.

Annexure referred in reply to part (a) of the Rajya Sabha Unstarred Question No. 300 to be answered on 19.07.2022

| State wise Estimated Potential | | | | | | | | |
|--------------------------------|-------------------------|-------------|-------------------------|------------------|-----------------------------|--------------------|-----------|------------|
| | STATES / UTss | Wind Power | Small Hydro Power | Bio-Energy | | | | |
| Sl. No. | | | | Biomass Power | Bagasse Cogenerati on | Waste To Energy | Solar | Total |
| | | (MW) @ 120m | (MW) | (MW) | (MW) | (MW) | (MW) | (MW) |
| 1 | Andhra Pradesh | 74906 | 409.32 | 578 | 300 | 123 | 38440 | 114756 |
| 2 | Arunachal Pradesh | 274 | 2064.92 | 8 | | | 8650 | 10997 |
| 3 | Assam | 246 | 201.99 | 212 | | 8 | 13760 | 14428 |
| 4 | Bihar | 3650 | 526.98 | 619 | 300 | 73 | 11200 | 16369 |
| 5 | Chhattisgarh | 348 | 1098.20 | 236 | | 24 | 18270 | 19976 |
| 6 | Goa | 8 | 4.70 | 26 | | | 880 | 918 |
| 7 | Gujarat | 142560 | 201.97 | 1221 | 350 | 112 | 35770 | 180215 |
| 8 | Haryana | 419 | 107.40 | 1333 | 350 | 24 | 4560 | 6793 |
| 9 | Himachal Pradesh | 151 | 3460.34 | 142 | | 2 | 33840 | 37595 |
| 10 | Jammu & Kashmir | 3 | 1707.45 | 43 | | | 111050 | 112803 |
| 11 | Jharkhand | 0 | 227.96 | 90 | | 10 | 18180 | 18508 |
| 12 | Karnataka | 124155 | 3726.49 | 1131 | 450 | | 24700 | 154162 |
| 13 | Kerala | 2311 | 647.15 | 1044 | | 36 | 6110 | 10149 |
| 14 | Madhya Pradesh | 15404 | 820.44 | 1364 | | 78 | 61660 | 79326 |
| 15 | Maharashtra | 98213 | 786.46 | 1887 | 1250 | 287 | 64320 | 166744 |
| 16 | Manipur | 0 | 99.95 | 13 | | 2 | 10630 | 10745 |
| 17 | Meghalaya | 1 | 230.05 | 11 | | 2 | 5860 | 6104 |
| 18 | Mizoram | 0 | 168.90 | 1 | | 2 | 9090 | 9261 |
| 19 | Nagaland | 0 | 182.18 | 10 | | | 7290 | 7482 |
| 20 | Orissa | 8346 | 286.22 | 246 | | 22 | 25780 | 34681 |
| 21 | Punjab | 278 | 578.28 | 3172 | 300 | 45 | 2810 | 7183 |
| 22 | Rajasthan | 127756 | 51.67 | 1039 | | 62 | 142310 | 271219 |
| 23 | Sikkim | 0 | 266.64 | 2 | | | 4940 | 5209 |
| 24 | Tamil Nadu | 68750 | 604.46 | 1070 | 450 | 151 | 17670 | 88695 |
| 25 | Telangana | 24835 | 102.25 | | | | 20410 | 45347 |
| 26 | Tripura | 0 | 46.86 | 3 | | 2 | 2080 | 2131 |
| 27 | Uttar Pradesh | 101 | 460.75 | 1617 | 1250 | 176 | 22830 | 26434 |
| 28 | Uttarakhandl | 54 | 1664.31 | 24 | | 5 | 16800 | 18547 |
| 29 | West Bengal | 1050 | 392.06 | 396 | | 148 | 6260 | 8246 |
| 30 | Andaman & Nicobar | 1277 | 7.27 | | | | 0 | 1284 |
| 31 | Chandigarh | 0 | 1.41 | | | 6 | 0 | 6 |
| 32 | Dadar & Nagar Haveli | 0 | | | | | 0 | 0 |
| 33 | Daman & Diu | 0 | | | | | 0 | 0 |
| 34 | Delhi | 0 | | | | 131 | 2050 | 2181 |
| 35 | Lakshwadeep | 31 | | | | 131 | 0 | 31 |
| 36 | Pondicherry | 382 | | | | 3 | 0 | 385 |
| 37 | Others | 302 | | | | 1022 | 790 | 1812 |
| 31 | Total | 695509.00 | 21133.62 | 17536.41 | 5000.00 | 2554.00 | 748990.00 | 1490723.03 |