

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 3958
ANSWERED ON 12.08.2026

SKILL DEVELOPMENT IN RENEWABLE ENERGY SECTOR

3958. SHRI SHASHANK MANI

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

- (a) the initiatives taken by the Government to develop skilled manpower for the renewable energy sector during the last five years, State-wise;
- (b) the details of persons trained and certified under Government supported programmes, State-wise;
- (c) whether specialised training programmes have been organised in eastern Uttar Pradesh and if so, the details thereof; and
- (d) the roadmap of the Government for expanding green employment opportunities through renewable energy adoption?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

- (a) The Ministry of New and Renewable Energy (MNRE) has taken several initiatives to develop skilled manpower through various capacity building and skill developmental programmes in the renewable energy sector in the country, as given at **Annexure-1**.
- (b) As per the records available with this office, the state wise number of trained and certified persons under Government supported programmes during the last five years are given in **Table - 1 to 2** of **Annexure-2**.
- (c) The Ministry of New and Renewable Energy (MNRE) is implementing the trainings under Suryamitra Skill Development programme, PM Surya Ghar Muft Bijli Yojana (*PMSGMBY*) and National Green Hydrogen Mission (NGHM) on a pan-India basis including eastern Uttar Pradesh through approved training centres, as given at **Annexure-1**.
- (d) The adoption of renewable energy (RE) comprising solar, wind, bioenergy, hydropower, green hydrogen and energy storage generates significant employment opportunities across the manufacturing, installation, operation, and maintenance segments of the sector. Accordingly, to develop trained workforce and facilitate employment generation in the renewable energy sector, the MNRE is implementing various skill development programmes, as detailed in part (a) of this reply.

Additionally, to institutionalise renewable energy education and training and meet the requirement for qualified and trained manpower in the country, the Human Resource Development scheme of the MNRE has been continued for the period from FY 2026-27 to FY 2030-31.

Annexure in reply to the Lok Sabha unstarred question no. 3958, Part (a), (Skill Development in Renewable Energy Sector) to be answered on 12.08.2026

The Ministry of New and Renewable Energy (MNRE) is implementing the following capacity building and skill developmental programmes to develop skilled manpower in the renewable energy sector:

- i. Skill development programmes such as Suryamitra (Solar PV Technician), Vayumitra (Wind Power Plant Technician) and Jal-urjamitra (Small Hydro Power Plant Technician) are being implemented under short term training component of Human Resource Development Programme. These programmes are being implemented to equip youth with skills in Solar, Wind and Bio energy through its autonomous research institutions namely National Institute of Solar Energy (NISE) Gurugram, Haryana, National Institute of Wind Energy (NIWE), Chennai, National Institute of Bio Energy (NIBE), Kapurthala, Punjab. The skilling program of the Ministry in hydro power is administered through Hydro and Renewable Energy Department (HRED), IIT Roorkee. The implementing agencies are executing these programmes through empaneled Training centers located throughout the country.
- ii. Under PM Surya Ghar Muft Bijli Yojana (*PMSGMBY*), to build capable local expert workforce for installation/design/ O&M for solar roof top systems throughout the country, trainings for the Technicians/ Electricians/ Installers/ Engineers/ Supervisors / vendors / trainers are being imparted through Directorate General of Training (DGT), National Institute for Entrepreneurship and Small Business Development (NIESBUD), National Institute of Solar Energy (NISE), Skill Council of Green Jobs (SCGJ) and TATA Power Skill Development Institute (TPSDI) etc.
- iii. Further, skilling of manpower is done for Green Hydrogen Sector under the National Green Hydrogen Mission (NGHM) through a scheme on skilling, up-skilling and re-skilling.
- iv. All the skilling programmes are implemented on Pan-India basis except Vayumitra and Jalurjamitra skill development programmes which are implemented in Wind rich and Small Hydro Power (SHP) rich states respectively, as given in table below:

Name of the Programme	Implemented States/UTs
Vayumitra	Rajasthan, Gujarat, Maharashtra, Karnataka, Tamilnadu, Andhra Pradesh, Telangana, Madhya Pradesh & Kerala
Jalurjamitra	J&K, Ladakh, HP, Uttarakhand, Sikkim, Arunachal Pradesh, Kerala, Meghalaya, Jharkhand, Karnataka, Andhra Pradesh, Orissa and NER states.

Annexure in reply to the Lok Sabha unstarred question no. 3958, Part (b), (Skill Development in Renewable Energy Sector) to be answered on 12.08.2026

Table 1: State wise trained and certified candidates under Suryamitra, Jal-urjamitra and Vayumitra skill development programmes during the last five years (FY 2021-22 to 2025-26)

S. No.	State/UT	No. of Trained & Certified candidates			
		Suryamitras	Jalurjamitras	Vayumitras	Total
1	Andaman and Nicobar Islands	0	0	0	0
2	Andhra Pradesh	460	261	41	762
3	Arunachal Pradesh	120	29	0	149
4	Assam	198	0	0	198
5	Bihar	390	0	4	394
6	Chandigarh	53	0	0	53
7	Chhattisgarh	293	0	0	293
8	Dadra and Nagar Haveli & Daman and Diu	0	0	0	0
9	Delhi	44	0	2	46
10	Goa	0	0	0	0
11	Gujarat	439	0	219	658
12	Haryana	257	0	0	257
13	Himachal Pradesh	90	133	0	223
14	Jammu and Kashmir	1377	0	0	1377
15	Jharkhand	120	0	1	121
16	Karnataka	499	53	254	806
17	Kerala	193	0	18	211
18	Ladakh	46	0	0	46
19	Lakshadweep	0	0	0	0
20	Madhya Pradesh	2692	0	131	2823
21	Maharashtra	1189	239	597	2025
22	Manipur	0	0	0	0
23	Meghalaya	60	0	0	60
24	Mizoram	0	0	0	0
25	Nagaland	0	0	0	0
26	Odisha	642	510	0	1152
27	Pondicherry	87	0	4	91
28	Punjab	549	0	0	549
29	Rajasthan	3062	0	391	3453
30	Sikkim	30	0	0	30
31	Tamil Nadu	957	115	1029	2101
32	Telangana	569	0	6	575
33	Tripura	90	0	0	90
34	Uttar Pradesh	3194	0	1	3195
35	Uttarakhand	503	324	0	827
36	West Bengal	503	0	1	504
Total:		18706	1664	2699	23069

Table 2: State wise trained and certified candidates under PM Surya Ghar Muft Bijli Yojana (PMSGMBY) & National Green Hydrogen Mission (NGHM) during the last five years (FY 2021-22 to 2025-26)

S. No.	State /UT	Trained and certified candidates under							
		PMSGMBY						NGHM	
		Solar Installers/Engineers/Technicians	Solar Helpers/Assistant Technicians	Entrepreneurs as Vendors	Rooftop Solar Supervisors	DISCOM Officials	Total	Trained	Certified
1	Andaman & Nicobar Islands	100	-	-	-	-	100	-	-
2	Andhra Pradesh	8,373	26	1863	4	-	10266	331	320
3	Arunachal Pradesh	15	-	-	-	-	15	-	-
4	Assam	764	944	1162	-	-	2870	131	124
5	Bihar	9098	482	4523	45	-	14148	-	-
6	Chandigarh	91	-	30	-	-	121	-	-
7	Chhattisgarh	874	250	861	-	-	1985	-	-
8	Delhi	450	122	-	214	859	1645	269	253
9	Goa	103	-	-	-	-	103	-	-
10	Gujarat	3283	435	1684	122	897	6421	725	643
11	Haryana	6874	579	1085	-	-	8538	676	639
12	Himachal Pradesh	2,952	169	2407	-	-	5528	-	-
13	Jammu And Kashmir	2694	2703	1138	1	-	6536	-	-
14	Jharkhand	1536	1187	1033	564	44	4364	-	-
15	Karnataka	13324	238	317	6	-	13885	177	165
16	Kerala	4309	38	53	61	-	4461	-	-
17	Ladakh	14	-	149	-	-	163	-	-
18	Lakshadweep	-	-	-	-	-	-	-	-
19	Madhya Pradesh	5091	2542	1842	12	1229	10716	684	613
20	Maharashtra	5804	755	1864	813	296	9532	613	539
21	Manipur	38	-	425	-	-	463	-	-
22	Meghalaya	40	-	-	-	-	40	-	-
23	Mizoram	6	-	-	-	-	6	-	-
24	Nagaland	18	-	-	-	-	18	-	-
25	Odisha	3478	544	3297	506	316	8141	384	278
26	Puducherry	217	-	142	-	-	359	-	-
27	Punjab	2126	1352	3899	1	-	7378	-	-
28	Rajasthan	5700	2294	2042	23	1464	11523	653	582
29	Sikkim	90	85	-	-	-	175	-	-
30	Tamil Nadu	2845	451	951	282	71	4600	217	193
31	Telangana	6095	364	293	1	-	6753	-	-
32	Dadra and Nagar Haveli & Daman and Diu	45	-	-	3	-	48	-	-
33	Tripura	498	-	159	-	-	657	-	-
34	Uttar Pradesh	11917	7757	5904	166	4	25748	2831	2468
35	Uttarakhand	1182	366	1623	-	-	3171	240	233
36	West Bengal	297	702	521	334	-	1854	218	198
Total		100341	24385	39267	3158	5180	172331	8149	7248
