

GOVERNMENT OF INDIA  
MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO - 1074**  
ANSWERED ON – 04.12.2024

**STRENGTHENING APPRENTICESHIP PROGRAMME**

**1074. SHRI JAGGESH:**

Will the Minister of SKILL DEVELOPMENT AND ENTREPRENEURSHIP be pleased to state:

- (a) whether it is a fact that there is a glaring skill gap of more than million jobs in the renewable energy sector;
- (b) what is the approximate number of job creation in the sector over the next three years and the number of deemed employable from the current pool of engineering graduates;
- (c) whether Government proposes for skilling/reskilling and strengthening apprenticeship programme to meet work force demands; and
- (d) if so, the details thereof, and by when Government will start skilling/ reskilling programme, the details thereof?

**ANSWER**

THE MINISTER OF STATE (INDEPENDENT CHARGE) IN THE MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP

(SHRI JAYANT CHAUDHARY)

**(a) and (b)** Renewable Energy sector has huge potential of job creation based on the targets of the Ministry of New and Renewable Energy (MNRE) of achieving 500 GW Renewable energy capacity by 2030. Based on information from Council on Energy, Environment and Water (CEEW) and other agencies, the renewable energy sector is projected to create about 28 lakhs jobs between August 2024 and March 2030 including 18 lakh jobs in the next three years. A significant part of the requirement is expected to be met by engineering graduates.

**(c) and (d)** Under the flagship scheme of Ministry of Skill Development and Entrepreneurship (MSDE), Pradhan Mantri Kaushal Vikas Yojana (PMKVY), so far 2,55,766 candidates have been trained across 26 job roles in the renewable energy sector till 31.10.2024. The details are given at **Annexure**.

Further, to meet the growing demand for renewable energy and sustainable technologies, Directorate General of Training under MSDE has introduced specialized courses in the areas of solar, hydro and wind energy as well as electric vehicles under Craftsmen Training Scheme (CTS) through Industrial Training Institutes (ITIs) and National Skill Training Institutes (NSTIs).

Apprenticeship training is also one of the key components for creating skilled manpower in India and contributes to 'Skill India'. Various reforms, including amendments in 2014 to the

Apprentices Act, 1961 and the Rules in 2019 and launch of National Apprenticeship Promotion Scheme (NAPS) have been carried out to facilitate the establishments to engage number of apprentices in August 2016.

MNRE has initiated skill development programmes under short term training programme components such as Suryamitra Programme (Solar PV technician) and varunmitra (Solar water pumping Technician) training programme in solar, Vayumitra (Wind Power Plant Technician) programme in wind and Jalurjamitra (Small Hydro Power Technician) programme in Small Hydro Power areas for operation and maintenance of the projects.

Under Prime Minister Surya Ghar Muft Bijli Yojana (PMSGMBY), the Government aims to create more than three lakh skilled manpower through skilling and upskilling including one lakh as solar technicians. Skilled manpower for Green Hydrogen Sector under the National Green Hydrogen Mission (NGHM) is being created through a Scheme on skilling, up-skilling and re-skilling under NGHM.

**ANNEXURE REFERRED TO IN REPLY TO PART (c and d) OF RAJYA SABHA  
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The details of job roles under PMKVY in the renewable energy sector till 31.10.2024:

| S.No. | Job Role Name (PMKVY)  | Total Trained / Oriented | Total Assessed | Total Certified |
|-------|--|--------------------------|----------------|-----------------|
| 1.    | Advance Course on Green Hydrogen   | 332                      | 293            | 291             |
| 2.    | Assistant Technician- Solar Panel Installation                           | 4,298                    | 2,753          | 2,528           |
| 3.    | Concepts of Green Hydrogen   | 59                       | 36             | 36              |
| 4.    | Green Hydrogen Plant Entrepreneur  | 16                       | -              | -               |
| 5.    | Hand Spinning Operator -Solar Operated New Model Charkha                 | 320                      | 157            | 157             |
| 6.    | Junior Technician- Solar EV charging station                             | 90                       | 23             | 23              |
| 7.    | O&M Electrical & Instrumentation Technician- Wind Power Plant            | 160                      | -              | -               |
| 8.    | Rooftop Solar Grid Engineer  | 598                      | 376            | 363             |
| 9.    | Small Hydro Power Plant Technician-(Jal Urja Mitra)                      | 150                      | 103            | 92              |
| 10.   | Solar EV Charging Entrepreneur   | -                        | -              | -               |
| 11.   | Solar LED Technician   | 27,499                   | 17,947         | 16,746          |
| 12.   | Solar Lighting Assembler (Elective: Home Lighting System/ Street Lights) | 4,765                    | 3,896          | 3,739           |
| 13.   | Solar Panel Installation Technician                                      | 1,04,520                 | 93,263         | 82,612          |
| 14.   | Solar Photovoltaic Entrepreneur  | 1,670                    | 1,520          | 1,443           |
| 15.   | Solar Proposal Evaluation Specialist                                     | 360                      | 278            | 273             |

|     |   |                 |                 |                 |
|-----|---|-----------------|-----------------|-----------------|
| 16. | Solar Pump Technician                                       | 36,158          | 26,393          | 23,622          |
| 17. | Solar PV Business Development Executive                     | 626             | 111             | 104             |
| 18. | Solar PV Designer   | 1,896           | 1,277           | 1,239           |
| 19. | Solar PV Engineer (Option: Solar Water Pumping System)      | -               | -               | -               |
| 20. | Solar PV Installer - Civil                                  | 1,542           | 1,311           | 1,253           |
| 21. | Solar PV Installer - Electrical                             | 18,431          | 16,206          | 15,321          |
| 22. | Solar PV Installer (Suryamitra)                             | 48,464          | 39,149          | 37,157          |
| 23. | Solar PV Maintenance Technician - Electrical (Ground Mount) | 1,809           | 1,046           | 1,001           |
| 24. | Solar PV Manufacturing Technician                           | 279             | 220             | 220             |
| 25. | Solar PV Project Helper                                     | 1,537           | 1,253           | 1,210           |
| 26. | Solar PV Project Manager (E&C)                              | 187             | 66              | 64              |
|     | <b>Grand Total</b>  | <b>2,55,766</b> | <b>2,07,677</b> | <b>1,89,494</b> |

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