

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 1992**  
TO BE ANSWERED ON 05.05.2016

**POTENTIAL OF RENEWABLE ENERGY**

1992. SHRI NAGENDRA KUMAR PRADHAN:  
SHRI RAHUL SHEWALE:  
SHRI ADHALRAO PATIL SHIVAJIRAO:  
DR. SHRIKANT EKNATH SHINDE:  
SHRI DHARMENDRA YADAV:  
SHRI VINAYAK BHAURAO RAUT:  
SHRI ANANDRAO ADSUL:

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

- (a) the details of solar, wind, tidal, hydro potential in various States of the country along with the extent to which such potential has been converted so far, State-wise;
- (b) whether the Government has conducted any study under which the country will be electrified completely on renewable energy, if so, the details and outcome therefor;
- (c) whether the country needs around 30,000 skilled managers to handle the entities engaged in this sector, if so, the details thereof along with the plan of the Government to resolve the shortage of skilled officers;
- (d) the assessment made by the Government to generate employment opportunities in the renewable energy sector;
- (e) the details of existing educational institutes providing education related to renewable energy sector in this country;
- (f) whether there is an urgent need to enhance education, training, centres to meet the demand of manpower requirement in the country, if so, the details thereof and the steps taken by the Government taken in this regard; and
- (g) whether the Government is also considering an Indian Energy Service on the lines of Indian Administrative Service, if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR POWER, COAL & NEW AND RENEWABLE ENERGY  
(INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

**(a):** The estimated potential for solar, wind, tidal and small hydro (up to 25 MW) is about 749GW, 302GW, 12.5GW and 20GW respectively. The state-wise potential and converted potential as on 31<sup>st</sup> March, 2016 for these are given in annexure.

**(b):** No, Madam.

**(c):** As per February 2015 Report entitled “Clean Energy Power Local Job Growth in India” and February 2016 Issue Brief entitled “Filling The Skill Gap in India’s Clean Energy Market: Solar Energy Focus” of Natural Resources Defense Council–Council on Energy Environment & Water (NRDC-CEEW) , the country needs an estimated number of Three Lakh highly skilled persons in solar and wind energy sector pertaining to business development, design and pre-construction, construction and commissioning and operation and maintenance activities. In addition, about 11 lakh semi-skilled and low skilled manpower is needed to achieve 100GW solar and 60 GW wind power capacity addition by the year 2022.

To address this need, Ministry of New and Renewable Energy (MNRE) is supporting educational institutes for PhD, M. Tech and M. Sc courses through National Renewable Energy Fellowship and support to lab and Library up-gradation components of Human Resource Development Programme of the MNRE besides supporting short term training programmes as skill development activities.

**(d):** The MNRE had assessed the employment opportunities in Renewable Energy Sector through a study conducted in the year 2010 by the Confederation of Indian Industry(CII) for the MNRE in its report “Human Resource Development Strategies for Indian Renewable Energy Sector”.

**(e):** Renewable Energy is being taught as an optional subject at B.Tech/B.E Courses in most of the Engineering Colleges/Institutes in India. In addition, M.Tech courses in Energy /Energy Studies/Renewable Energy/Energy and Environment are also offered by many institutions. Most of the Universities/Institutes also offer PhD programme in Renewable Energy.

**(f):** Realizing the need of strengthening the education and training requirement in renewable energy sector, a comprehensive HRD programme is being run by the MNRE which includes National Renewable Energy Fellowship, National Solar Science Fellowship, support for lab and library up gradation in educational institutions, institution of Renewable Energy Chairs, support for short term training programmes (skill development programmes) and preparation of course modules.

**(g):** No, Madam.

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