

**Growth of renewable energy**

2136. DR. VIKAS MAHATME: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether the Ministry has taken any proactive measures to foster the growth of renewable energy sector in the country;
- (b) if so, the details thereof;
- (c) whether Government is using geothermal energy which is supposed to be economical and eco-friendly, if not, the reasons therefor and if so, the details thereof and the steps taken to increase its generation; and
- (d) whether Government has entered into collaboration with other countries for R&D in this regard?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI PIYUSH GOYAL): (a) and (b) Yes Sir. Proactive measures taken by Ministry of New & Renewable Energy (MNRE) to foster growth of renewable energy sector in the country are as follows:

- Up-scaling of the target of renewable energy capacity to 175 GW by the year 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power.
- Amendments in Tariff Policy for strong enforcement of Renewable Purchase Obligations (RPO) and for providing Renewable Generation Obligation (RGO).
- Setting up of exclusive solar parks.
- Development of power transmission network through Green Energy Corridor project.
- Identification of large Government complexes/buildings for rooftop projects.
- Provision of roof top solar and 10% renewable energy as mandatory under Mission Statement and Guidelines for Development of smart cities.
- Amendments in building bye-laws for mandatory provision of rooftop solar for new construction or higher Floor Area Ratio (FAR).
- Infrastructure status for solar projects.
- Raising tax free solar bonds.

- Making roof top solar a part of housing loan by banks/NHB.
- Incorporating measures in Integrated Power Development Scheme (IPDS) for encouraging distribution companies and making net-metering compulsory.
- Raising funds from bilateral and international donors and also from Green Climate Fund to achieve the target.
- Creation of Surya Mitras for installation and maintenance of the solar projects.

(c) and (d) No Sir, No geothermal power plant has been set up in the country so far. Although geothermal energy is a clean, safe, sustainable & eco-friendly source of energy but it is not economical. The reasons for non-development of geothermal energy are its site-specific nature, high capital cost, low/medium geothermal potential in India and unsustainable project specific tariff. The Government has entered into a Memorandum of Understanding (MoU) with the Governments of Spain, Philippines and Australia for R&D activities in Geothermal Energy.

#### **Cumulative solar power capacity**

2137. SHRI DILIP KUMAR TIRKEY: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) what is the present cumulative solar power capacity of the country and the growth rate in this sector during the last three years the details thereof, region-wise; and
- (b) the steps being taken by Government to popularize and make solar appliances affordable to the general public?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI PIYUSH GOYAL): (a) The present cumulative solar power capacity installed in the country is 8228 MW as on 31.10.2016. The details of the region-wise growth in solar capacity installation during the last three years is given in the Statement (See below).

(b) In order to popularize the National Solar Mission (NSM) and make solar appliances affordable to the general public, the Government has launched several schemes and is providing fiscal and promotional incentives as given below:-

- capital and/or interest subsidy,
- tax holiday on the earnings for 10 years,
- generation based incentive,
- accelerated depreciation,