

**GOVERNMENT OF INDIA
NEW AND RENEWABLE ENERGY
LOK SABHA**

STARRED QUESTION NO:419

ANSWERED ON:31.07.2009

POWER GENERATION FROM RENEWABLE ENERGY SOURCES

Adsul Shri Anandrao Vithoba;Panda Shri Prabodh

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

- (a) whether there is immense potential to meet the country's energy needs through renewable energy sources which are available in abundance in the country;
- (b) if so, the details thereof;
- (c) whether the Government has identified the hurdles coming in exploring the renewable energy sources in the country;
- (d) if so, the details thereof; and
- (e) the remedial measures taken or proposed to be taken by the Government in this regard?

Answer

THE MINISTER OF NEW AND RENEWABLE ENERGY(DR. FAROOQ ABDULLAH)

(a), (b), (c), (d) & (e): A Statement is laid on the Table of the House.

Statement

Statement referred to in reply to parts (a), (b), (c), (d) & (e) of the Lok Sabha Starred Question No.419 for answer on 31.07.2009 regarding Power Generation from Renewable Energy Sources.

(a) & (b): Renewable energy schemes / programmes are only supplementing the energy / electricity needs of the people in the country. A potential of around 90,000 MWeq for energy / power generation from different renewable energy sources (excluding solar) in the country has been estimated which includes 48,561 MW from wind power, 14,294 MW from small hydro power and 26,367 MWeq from bio-power. The potential for solar energy is estimated for most parts of the country at around 20 MW per square kilometer of open, shadow free area covered with solar collectors.

(c) & (d): The major hurdles faced in the exploration of renewable energy sources are:

- # Inherent intermittent nature of renewable energy sources leading to low capacity utilization factors ranging from about 17% to 70%, depending on resource and location; and also need for storage.
- # Grid synchronization limitations on account of intermittent nature of supply;
- # Relatively higher capital investment compared to conventional power projects, Requirement of preferential tariffs apart from other fiscal and/or financial concessions to make investment in renewable power a commercially attractive proposition
- # General difficulties in servicing and maintenance in remote areas where the renewable energy systems are installed.

(e) : While the inherent intermittent nature of renewable energy sources can not be altered, the government is focusing on the following for better exploitation of these sources:

- # Reducing the costs and improving efficiencies & reliability of renewable energy systems through support for research and development activities in identified and development of standardization and testing facilities.
- # Support to industry (concessional loans) for upgradation of technology/ production facilities.
- # Support for manpower/ skill development through fellowships and sector specific training programmes
- # Fiscal and financial incentives, such as, capital/ interest subsidy, accelerated depreciation, nil/ concessional excise and customs duties; preferential tariff for grid interactive renewable power;
- # Extensive publicity and awareness on the use of renewable energy systems/ devices through print and electronic media, and special events.