

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

UNSTARRED QUESTION NO:2079
ANSWERED ON:06.08.2010
POWER GENERATION FROM WIND AND SOLAR ENERGY
Singh Baba Shri K.C.

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

- (a) whether any assessment has been made for power generation from the wind and solar energy in the hilly areas of the country including Uttarakhand;
- (b) if so, the details thereof;
- (c) whether the cost of electricity per unit from the conventional sources of energy is much higher than that of non-conventional sources like wind and solar energy in these areas;
- (d) if so, the details thereof;
- (e) whether the Government has taken initiatives to exploit the potential of wind and solar energy in the hilly areas of the country including Uttarakhand; and
- (f) if so, the details thereof?

Answer

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

(a)&(b): Ministry through the Centre for Wind Energy Technology has taken up a wind resource assessment programme to assess wind power potential in the country including Uttarakhand. As a result of this exercise, 233 wind potential locations have been identified so far. The state-wise break-up of wind potential locations is given at Annexure-A.

Regarding solar energy, the daily average solar radiation varies from 4-7 kwh per sq. met. depending upon the location in the country. However, no specific assessment study has been done for hilly regions so far.

(c) & (d): No, Madam. The cost of electricity per unit from solar energy is quite high as compared to conventional sources. As per the Central Electricity Regulatory Commission, the tariff for 2010-11 for Solar Photovoltaics Power Projects is Rs. 17.91 per unit and that for Solar thermal projects is Rs. 15.31 per unit. The cost of generation of electricity from wind power projects varies from Rs. 2.75 to Rs. 3.50 per unit depending upon site, capital cost, debt-equity ratio, and interest rate etc.

(e)&(f): Government is promoting commercial grid connected wind power projects through private sector investment in wind potential states by providing fiscal incentives, loan from Indian Renewable Energy Development Agency (IREDA) and other financial institutions. Technical support including detailed wind resource assessment to identify further potential sites, is provided by the Centre for Wind Energy Technology (C-WET), Chennai. This apart, preferential tariff is being provided to increase wind energy investment in the potential States. Government has recently announced a generation based incentive (GBI) under which Rs. 0.50 per unit generated from wind power projects is provided to the projects which do not avail accelerated depreciation benefit.

The Government has recently announced Jawaharlal Nehru National Solar Mission which provides a policy framework to support promotion and development of grid connected solar power projects and also off-grid solar applications across the country including hilly regions. The achievements so far under SPV programme are given at Annexure-B