

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

UNSTARRED QUESTION NO:4746

ANSWERED ON:23.04.2010

COST EFFECTIVENESS OF RENEWABLE SOURCES OF ENERGY

Swamygowda Shri N Cheluvarya Swamy

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

(a) whether the Government has made any assessment regarding the cost effectiveness of power generated from the renewable sources of energy in the country; and

(b) if so, the details thereof ?

Answer

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

(a)& (b): The cost effectiveness of power generation from renewable sources of energy is highly site and resource specific and also depends on other factors such as project capacity, chosen technology and need for storage. The inherent intermittent nature of these sources leading to low capacity utilization factors ranging from about 17% to 70% is a major factor determining the projects economic viability. Resource-wise details of estimated average annual electricity generation, project installation costs and costs of electricity generation are given in Annexure.

Annexure

ANNEXURE REFERRED TO IN REPLY TO LOK SABHA UNSTARRED QUESTION NO. 4746 FOR 23-04-2010 REGARDING COST EFFECTIVENESS OF RENEWABLE SOURCES OF ENERGY

Resource-wise details of estimated average annual electricity generation, project installation costs and costs of electricity generation

| S. No. | Renewable Resource | Estimated average annual project cost generation MWeq (MU/MW) | Estimated Cost of electricity (Rs. in crore/ Generation MWeq) | Estimated Cost of Electricity (Rs. per kWh) |
|--------|--------------------|---|---|---|
|--------|--------------------|---|---|---|

1. Solar PV Power 1.50 15 - 20 15 - 20

2. Solar Thermal Power 2.00

3. Wind Power 2.00 5-6 2.50 - 3.50

4. Small Hydro Power 3.50 5-7 2.50 - 3.50

5. Biomass Power 4.00 5-6 2.50 - 3.50

6. Bagasse Cogeneration 6.00

7 U&I Waste to Energy 6.00 3-10 3.00 - 5.50