- (b) if so, the reasons therefor;
- (c) if not, the details thereof; and
- (d) whether there is any proposal to bring out a National Policy or legislation to govern the wind energy sector and if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) Yes, Sir. Provisions of the Electricity Act, 2003 and National Tariff Policy-2005 are applicable to the wind energy sector.

- (b) and (c) Electricity Act, 2003 provides for suitable measures for connectivity of wind power projects with the grid and sale of electricity. It also provides for specifying RPO–Renewable Power Obligation (a percentage of the total consumption of electricity in the area of a distribution licensee) for purchase of electricity from renewable energy sources including wind energy. The National Tariff Policy-2005 enjoins upon the state electricity regulators to notify preferential tariff for renewable power, including wind energy.
 - (d) No, Sir.

Grid connectivity to renewable energy sources

2737. DR. JANARDHAN WAGHMARE; SHRI N.K. SINGH:

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

- (a) whether it is a fact that the Central Government is proposing to provide financial assistance to States for grid connectivity to renewable sources of energy;
 - (b) if so, the details thereof;
- (c) what are the major challenges being faced in increasing reliance on renewable sources of energy; and
- (d) what measures have been taken by Government to augment capacity for renewable sources of energy?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) No, Sir.

- (b) Question does not arise.
- (c) The major challenges faced in increasing reliance on renewable sources of energy include their inherent intermittent nature leading to low plant load factor, problems in storing energy; grid synchronization limitations on account of intermittent nature of supply; current high cost particularly of solar power generation; inadequate power evacuation/transmission arrangements; and general difficulties in servicing and maintenance in remote areas. However, constant effort and incentives are now helping in rapid deployment.

- (d) Various measures taken by the Government to augment power generation capacity through renewable sources of energy include:
 - Fiscal and financial incentives such as, capital/interest subsidy/ generation based incentive, accelerated depreciation, concessional excise and customs duties;
 - Directives under Electricity Act 2003 to the states for fixing Renewable Purchase Obligation (RPO);
 - Preferential tariff for grid interactive renewable power in potential States following the provisions made under the National Electricity Policy 2005 and National Tariff Policy 2006; Uniform guidelines by CERC for fixation of such preferential tariffs is being issued every year;
 - Jawaharlal Nehru National Solar Mission to give a boost to deployment of solar energy systems, solar PV as well as solar thermal/achieve reduction in cost of solar power.
 - Periodic review meetings with states to address any policy and regulatory issues and bottlenecks in expeditious completion of projects.

Contribution of renewable sources of energy

2738. SHRI AVINASH PANDE: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the net contribution of renewable forms of energy like solar energy, wind energy and geothermal energy to the total power generation during the last three financial years;
- (b) the details of capacity addition done during the Eleventh Five Year Plan to the renewable sources of power generation;
- (c) whether steps have been taken by Government to encourage the use of clean forms of renewable energy like solar energy, wind energy and geothermal energy;
 - (d) if so, the details thereof; and
- (e) whether Government has taken steps to enforce and promote Clean Development Mechanism and if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) Grid-interactive power generation capacity of 7111.66 MW from wind power and 940.09 MW from solar power has been added in the country during the last 3 years. No capacity addition has taken place from Geothermal energy which is presently at research and development stage.

(b) Renewable power generation capacity addition of 14660.65 MW has taken place during the Eleventh Plan period. This comprises of 10259.60 MW wind