

- Wide publicity on the use and utility of renewable energy through electronic and print media, etc.

Grid integration of renewable energy projects

1970. SHRI THOMAS SANGMA: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether renewable energy poses particular technical and managerial challenges for grid integration;
- (b) if so, the details thereof; and
- (c) the steps taken by Government to address each of such challenges and facilitate grid integration of renewable energy projects in the country and the progress thereof, State-wise?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) and (b) The main technical problems faced with grid integration of renewable power (i) grid-synchronization limitations on account of intermittent nature of supply, (ii) limitations of existing transmission capacity, and (iii) ability of renewable power generating plant to cope with sudden short-term drops in grid voltage, as can be caused by short-circuits.

(c) Most of the above problems can be overcome significantly with the use of digital technology and development of smart grids coupled with general expansion of grid capacity. This technology is applicable mainly for conventional power sector but can be useful for efficient integration of renewable power into the grid by alleviating the cited problems. The Government has set up a task force to develop the same. The Central Electricity Regulatory Commission has also commissioned a study.

Electrification of remote villages

1971. SHRI RAGHUNANDAN SHARMA: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the generation of power in Megawatts from the projects operating under Jawaharlal Nehru National Solar Mission, project-wise;
- (b) whether Government proposes to electrify remote villages of the country through solar power;
- (c) if so, the targets set for villages and by when it would be completed, State-wise;
- (d) whether the remote rural areas of Madhya Pradesh would also be included in this scheme; and
- (e) if so, the details about the areas to be included?