

Technology missions for alternative and renewable energy

1158. SHRI SITARAM YECHURY: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether Government has announced several technology missions to promote alternative and renewable energy use;
- (b) if so, the details thereof, mission-wise and the target of energy production;
- (c) whether Government has also announced that tariff would be fixed for solar power to be exported to Grid;
- (d) if so, whether the tariff has been fixed; and
- (e) if so, the details thereof and if not, the reasons therefor?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) to (e) The Government has approved "Jawaharlal Nehru National Solar Mission" (JNNSM) in November 2009 to give a major boost to development and deployment of solar energy technologies in the country. The Mission aims at creating an enabling policy framework for deployment of 20,000 MW of solar power, 2000 MW off-grid applications, including 20 million solar lighting systems and 20 million sq. solar thermal collector area by 2022, split over three phases.

There will be an interim evaluation of progress, review of capacity and targets for subsequent phases, based on emerging cost and technology trends, both domestic and global.

The Government has approved implementation of the first phase upto March 2013 with target of 1,100 MW of grid connected solar power plants (1,000 MW connected at 33 KV and above and 100 MW rooftop and small solar plants connected to LT/11 KV grid), 200 MW capacity equivalent off-grid solar applications and 7 million square metre solar thermal collector area. An amount of Rs.4337 crore has been approved for the proposed first phase activities till March 2013 as per the following details:

- The implementation of the target of 1,000 MW of grid connected (33 KV and above) solar power plants will be through NTPC Vidyut Vyapar Nigam (NVVN), a trading subsidiary of NTPC Limited. NVVN will directly purchase the solar power from the project developers as per the norms and guidelines fixed in this regard.
- 100 MW capacity of solar roof top and small grid connected solar power plants will be connected to LT/11 KV grid of the distribution utility and the solar power will be directly purchased by the distribution utilities as per the norms and guidelines fixed in this regard.
- 200 MW equivalent capacity of off-grid solar applications, both solar thermal and photovoltaic will be implemented through a combination of low interest bearing loans and/or central financial assistance, as per the norms and guidelines fixed in this regard.

- In addition, the Mission will support various activities, as considered necessary, on R&D, Human Resource Development, Technical Assistance, training, publicity and awareness etc. for successful implementation of the Mission.

National Solar Mission

1159. SHRI SITARAM YECHURY: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether Government has announced the National Solar Mission with a target of generating 20,000 MW solar power;
- (b) the details of proposed investment Government has planned to commission under this Mission;
- (c) the manner in which the Mission is going to be commissioned;
- (d) the details of available technologies for Solar power generation;
- (e) the incentives offered to the promoters;
- (f) whether any pilot project has been commissioned under this Mission; and
- (g) if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) Yes, Sir.

(b) and (c) The Mission will be implemented in three phases. Government has approved a target to set up 1,100 MW grid connected solar plants, including 100 MW capacity plants as rooftop and other small solar power plants for the first phase of the Mission till March 2013. In addition, 200 MW capacity equivalent off-grid solar applications and 7 million square metre solar thermal collector area are to be installed. An amount of Rs. 4,337 crores has been approved for the first phase of the Mission.

(d) Solar power projects, based on solar thermal and photovoltaic technology options can be set up under the Mission on build, own and operate basis.

(e) Central Electricity Regulatory Commission has fixed tariff for purchase of solar power from the project developers. The applicable tariff for 2009-10 is Rs. 18.44 per unit for photovoltaic power and Rs. 13.45 per unit for solar thermal power.

(f) and (g) Solar power projects are yet to be commissioned under the Mission. Recently, three grid connected solar PV power projects of a total of 8 MWp capacity have been set up in Punjab, Karnataka and West Bengal. The Ministry has sanctioned generation based incentive under an earlier pilot scheme of the Ministry for the 1 MWp project installed in West Bengal.

Utilisation of bio-diesel and bio-ethanol

1160. SHRI P. RAJEEV: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state: