(c) and (d) Guidelines for "Rooftop and other small solar power plants" and "Selection of new grid connected solar power projects" have been issued on 16th June, 2010, and 25th July, 2010 respectively.

Use of solar and wind Energy

2369. SHRI H.K. DUA: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether Government is working out detailed plans for use of solar and wind energy in the country and if so, the details thereof;
 - (b) to what extent the solar and wind energy can fill the gap in demand in five years; and
- (c) in view of the high cost of production of solar energy, whether Government is carrying out any research for cheaper ways to produce solar energy at affordable rates and if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH): (a) For use of solar energy, the Government has recently announced Jawaharlal Nehru National Solar Mission (JNNSM) which aims at creating capacity of 20,000 MW grid solar power and 2,000 MW offgrid solar power including 20 million solar lights, and installation of 20 million square meter solar thermal collector area in the country by 2022.

For use of wind energy, the Ministry has taken up a programme to assess wind power potential in the country through the Centre for Wind Energy Technology, Chennai. As a result of this, 233 wind potential locations have been identified so far. The state-wise break-up of wind potential locations is given in Statement (See below).

(b) First phase of the JNNSM (up to 2013) has a target for setting up a capacity of 1,100 MW grid connected solar power plants including 100 MW capacity as roof top and small solar plants, and 200 MW equivalent capacity of off-grid solar photovoltaic, solar thermal and hybrid applications. Regarding wind, the 11th plan target for capacity addition was set at 9000 MW against which 5035 MW has already been achieved.

(c) Research & Development (R&D) is a major initiative under JNNSM. The Ministry is supporting R&D efforts in the area of solar energy covering different aspects of solar photovoltaic and solar thermal technologies, including multi-disciplinary research, with the objective of improving the efficiency, systems performance and reducing the cost. These efforts have focus on development of new materials, devices, storage techniques, and early indigenization of critical materials and components for achieving cost reduction.

Statement
State-wise wind potential locations

SI.No.	States	No. of Wind Potential sites identified for
		Wind Power Projects
1.	Tamil Nadu	45
2.	Gujarat	40
3.	Orissa	6
4.	Maharashtra	39
5.	Andhra Pradesh	32
6.	Rajasthan	8
7.	Lakshadweep	8
8.	Karnataka	26
9.	Kerala	17
10.	Madhya Pradesh	7
11.	West Bengal	1
12.	Andaman & Nicobar Islands	2
13.	Uttarakhand	1
14.	Jammu and Kashmir	1
	TOTAL:	233