(b) The MoU between SEC and DTU envisages collaborative research through joint supervision of M.Tech and Ph.D theses, practical courses at SEC for DTU students in specialized areas of solar energy, joint refresher courses for the industry and organizing conferences, symposium and workshops on the cutting edge renewable energy technologies. So far SEC has collaborated with DTU in organizing the Second International Symposium on Concentrated Solar Power in June, 2012. A two days refresher course on solar energy for the students and faculty of DTU was organized at SEC in March, 2013. Students of DTU are also pursuing projects at SEC. As a result of sustained R&D activities pursued by the Ministry, under various programmes, so far 10135 villages and hamlets have been provided with electricity, 46.55 lakh biogas plants have been installed, biomass gasifiers of a total capacity of 16.79 MW have been commissioned and photovoltaic systems of aggregate capacity of 124.67 MW have been deployed for providing energy in off-grid mode.

(c) Does not arise.

Viability gap funding for solar projects

3055. SHRI A. ELAVARASAN : Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether the Ministry has come out with the proposed norms for viability gap funding (VGF) for large size solar power projects that would come up in Phase-II of the Jawaharlal Nehru National Solar Mission;

(b) if so, the details thereof;

(c) whether the Ministry has decided to facilitate the creation of 10,000 MW of utility scale solar power capacity under Phase-II; and

(d) if so, the details thereof?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH) : (a) and (b) Yes Sir. The proposal for Viability Gap Funding (VGF) Scheme for large size solar power projects under Batch-1 of Phase-II of Jawaharlal Nehru National Solar Mission (JNNSM) envisages the following main provisions:

- *Coverage*: Solar PV projects of total 750 MW capacity to be set up on Build-Own-Operate basis, with minimum project capacity of 10 MW.
- *Tariff for power purchase*: @ Rs. 5.45/ unit fixed for 25 years.

- *VGF support*: up to 30% of project cost or Rs. 2.5 crore/MW whichever is less, based on bids.

- *Developers' equity contribution*: At least Rs. 1.5 crore/MW. The balance amount can be raised as loan from any source.

This scheme is, however, still under finalisation.

(c) and (d) The Ministry envisages solar power capacity addition of 9,000 MW under JNNSM Phase-II (April, 2013—March, 2017), comprising of 3,000 MW under Central schemes and 6,000 MW under States own initiatives/market mechanisms of Solar Renewable Purchase Obligations (RPOs)/Renewable Energy Certificates (RECs). The capacity addition under Central schemes is envisaged mainly through three different schemes of (i) Bundling with thermal power, (ii) Viability Gap Funding support from National Clean Energy Fund and, (iii) Generation Based Incentive Scheme from Ministry's direct budgetary allocation, in different proportions depending on availability of unallocated quota of thermal power allocation of funds from different sources.

Power generation for renewable energy sources

3056. SHRIMATI VASANTHI STANLEY : Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) the States which are successfully generating power from renewable energy sources; and

(b) the details of new schemes Government proposes for promotion of new and renewable energy?

THE MINISTER OF NEW AND RENEWABLE ENERGY (DR. FAROOQ ABDULLAH) : (a) The total installed capacity of power generation from renewable energy sources in the country is 28,067 MW. Major contribution to this is coming from the States of Tamil Nadu (7849 MW), Maharashtra (4188 MW), Gujarat (4079 MW), Karnataka (3605 MW), Rajasthan (3353 MW) and Andhra Pradesh (1114 MW). State-wise details are given in Statement-I (*See* below).

(b) The Government is continuing various incentive schemes to promote the new and renewable energy sector. Details of the incentives schemes are given in Statement-II (*See* below). Further, It is proposed to introduce instruments like generation based incentives, viable gap funding etc. to further support the Renewable Energy sector.