

**PERC solar cell production**

1733. SHRI K. J. ALPHONS: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the objective of Passivated Emitter and Rear Cell (PERC) project;
- (b) whether it has been possible to develop PERC type solar cells; and
- (c) whether commercial production of these cell has been started?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI RAJ KUMAR SINGH): (a) The Ministry of New and Renewable Energy (MNRE) has sanctioned a R&D project "Development of high efficiency (21% 19%) PERC type of mono crystalline silicon (c-Si)/multi-crystalline silicon (mc-Si) solar cells" implemented by Bharat Heavy Electricals Limited (BHEL-ASSCP), Gurugram with the following objectives:—

- (i) Development of unit processes for large area (6" inch x 6" inch), PERC, c-Si / mc-Si solar cells with a targeted efficiency of 21 % and 19% for c-Si and mc-Si respectively.
- (ii) Demonstration of technology at pilot scale, enabling easy transfer to domestic manufacturing.

(b) and (c) While under the above-mentioned PERC project, PERC type solar cell domestic production line will be developed, similar PERC solar cells lines have been developed in other parts of the world with commercial production.

**Solar MSMEs**

1734. SHRI VIJAY PAL SINGH TOMAR: Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether Government is taking any action to support the solar Micro, Small and Medium Enterprises which manufacture solar modules, ancillary products, raw material suppliers in the solar photovoltaic space to boost the sector of solar energy in the country so far; and
- (b) if so, the details thereof?