# GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY

#### LOK SABHA

# **UNSTARRED QUESTION NO. 969**

TO BE ANSWERED ON 21.12.2017

### DEVELOPMENT OF WATERPROOF/WASHABLE SOLAR CELLS

969. SHRI JAYADEV GALLA:

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a): whether new type of waterproof/washable solar cells have been developed by the University of Tokyo; and
- (b): if so, the manner in which the above cells are different from the conventional ones being used now and the advantages thereof?

#### **ANSWER**

THE MINISTER OF STATE FOR POWER AND NEW & RENEWABLE ENERGY (I/C) (SHRI R.K. SINGH)

- (a): It has been reported that waterproof and washable solar cells have been developed by researchers from RIKEN Centre for Emergent Matter Science and University of Tokyo.
- (b): These are extremely thin and flexible organic solar cells having lower efficiency i.e.  $\leq$  8%. These cells made in very small size and of low power, may be integrated with the clothes which can be worn on the body and can be used to power medical devices and sensors. On the other hand, the conventional solar cells are the silicon wafer-based relatively thick and inflexible cells (100-180 microns) and have the efficiencies in the range of 18-26%. These conventional cells are generally used for generation of electric power.

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