

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 1984**  
ANSWERED ON 09.12.2021

**SOLAR POWERED PUMPS**

1984. DR. SHASHI THAROOR

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

- (a) whether the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) scheme launched in 2019, aims to potentially replace one-third to one-fourth of the present nearly 21 million electric and 9 million diesel-based irrigation pumps into solar-powered pumps by the year 2022;
- (b) if so, the details thereof;
- (c) the incentives to encourage beneficiaries to restrict wastefulness of water and use the plummeting groundwater table efficiently in absence of running expenses for solar pumps;
- (d) the details of provisions to utilize surplus power from off-grid solar pumps for rural homes; and
- (e) the details of measures to control over-extraction of ground water owing to availability of surplus solar power?

**ANSWER**

**THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER**

**(SHRI R.K. SINGH)**

(a) & (b) The PM-KUSUM Scheme launched in March, 2019 and scaled-up in November, 2020 envisages installation of 20 lakh standalone off-grid solar water pumps and solarization of 15 lakh existing grid-connected agriculture pumps by 2022.

(c) to (e) To encourage judicious use of ground water and to control over-extraction, following provisions have been made in the PM-KUSUM Scheme:

- (i) Preference for installation of standalone solar pumps and solarization of existing agriculture pumps is given to the farmers using micro irrigation systems or covered under micro irrigation schemes or who opt for micro irrigation systems.
- (ii) The size of standalone solar pump is to be selected on the basis of water table in the area, land covered and quantity of water required for irrigation.
- (iii) Farmers have the option to monetize the surplus power generated under individual pump solarization by selling it to the DISCOM. Further, under feeder level solarization, farmers are incentivised for electricity consumption below the benchmark consumption.
- (iv) New solar pumps are not allowed to be installed in dark zones. Only the existing diesel pumps can be replaced with solar pumps under Component-B and existing electric pumps can be solarized under Component-C in these areas provided they use micro irrigation techniques to save water.

In addition, Universal Solar Pump Controller (USPC) has been introduced to utilize surplus power generated through solar panels installed with off-grid solar pumps when irrigation is not required. USPC helps farmers to run other agriculture equipment such as threshers, chaff cutters, flour mills, etc.

\*\*\*\*\*