

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 62**  
ANSWERED ON 20.07.2023

**PHOTO VOLTAIC WASTE TREATMENT**

62. SHRIMATI RAKSHA NIKHIL KHADSE  
SHRI MANOJ KOTAK

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

- (a) whether the Government proposes to formulate and implement provisions specific to Photo Voltaic (PV)-waste treatment within the ambit of e-waste guidelines and if so, the details thereof;
- (b) whether the Government also proposes to set-up separate regulatory body to protect against financial losses incurred in waste collection and treatment and if so, the details thereof.
- (c) whether the Government also proposes domestic R&D facilities to pay more attention to create and develop PV-waste recycling technologies promoted through appropriate infrastructure to arrest the single module type which would disuniformly depleting certain natural resources and stunt the local capacity for recycling and recovery of critical materials; and
- (d) if so, the details thereof?

**ANSWER**

**THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER**  
**(SHRI R.K. SINGH)**

(a) & (b) Ministry of Environment, Forest and Climate Change, Government of India has notified the E-Waste (Management) Rules, 2022 on 2<sup>nd</sup> November, 2022. These rules replace E-Waste (Management) Rules, 2016 with effect from 1st April, 2023. These rules have been notified for environmentally sound management of e-waste generated from electrical and electronic equipment, including solar photo-voltaic (PV) modules or panels or cells.

As per these rules, every manufacturer and producer of solar photo-voltaic modules or panels or cells has been mandated to obtain registration, maintain inventory of solar PV modules, store the waste generated from Solar PV modules/panels/cells up to the year 2034-35 as per the guidelines laid down under the rules, file annual returns, comply with Standard Operating Procedures, and process the waste other than solar PV modules as per the applicable waste management rules. Further, Recycler of solar photo-voltaic modules or panels or cells shall be mandated for recovery of material as laid down by the Central Pollution Control Board.

Under these rules, the Central Pollution Control Board (CPCB) is mandated to prepare and issue guidelines and Standard Operating Procedures for collection, storage, transportation, segregation, refurbishment, dismantling, recycling and disposal of e-waste, including solar photo-voltaic

modules or panels or cells waste. There is currently no proposal to setup a separate regulatory body in addition to the regulatory framework existent under the E-waste (Management) Rules, 2022 to protect against the financial losses incurred in waste collection and treatment.

(c) & (d) The Ministry of New and Renewable Energy (MNRE) supports a scheme “Renewable Energy Research and Technology Development Programme (RE-RTD)” through various research institutions and industry to enable indigenous technology development and manufacture for wide spread applications of new and renewable energy in efficient and cost-effective manner across the country with the aim of increasing share of renewables in the energy mix in the country.

MNRE has identified Solar PV Recycling as one of the priority thrust areas under RE-RTD in which some research projects have been received for recycling and recovery of critical materials.

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