RelifeSolar: End-of-Life Retractable Solar Panels

The global flexible solar panels market size is projected to reach \$914.07 million by 2030.

Only a very small fraction of these plastic-plastic panels are recycled and an even smaller fraction gets Re-X'd. There is therefore an urgency in developing the necessary knowhow, processes and infrastructure to avoid tons of plastic films are disposed of into landfills.

Shred Cycle and Mirai Solar propose an innovation that repurposes end-of-life plastic films from the solar industry back into solar panel structures.



Mirai's solar shade structure



Shred Cycle reformed TPU sheets

Decouple solar shade panels and their plastic films from their electronic pieces at end-of-life stages.

Process and repurpose this plastic film to serve as the back panel of Mirai solar shade panels.

Not only reducing the necessity for new materials but also reintegrates waste from one product back into the same product, fostering a Re-X supply chain from emerging markets.

18,000 metric tons



Of potential untreated plastic waste could result from emerging solar products

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