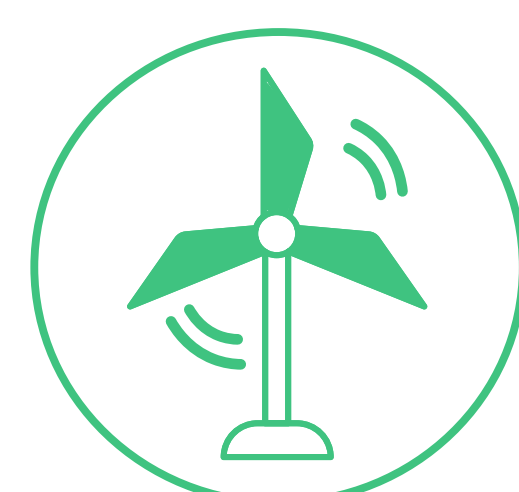


How to recycle wind turbine blades



As blades reach their end-of-life cycle, new techniques drive their recycling so they keep producing energy, this time in photovoltaic panels.

More than **90 %** of a wind turbine's weight can be recycled.

To move closer to **100 %**, the biggest challenge is the blades, which consist of multiple materials.

RECYCLING:

Blade materials can be extracted using various techniques.



THERMAL



THERMOCHEMICAL

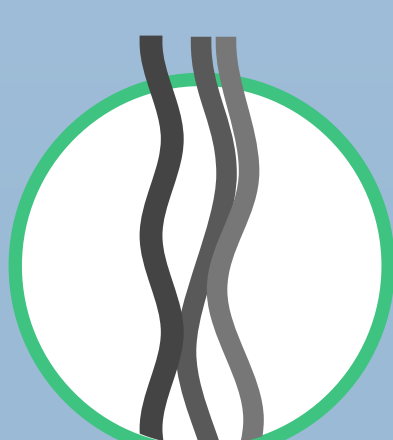


ELECTROMECHANICAL



MECHANICAL

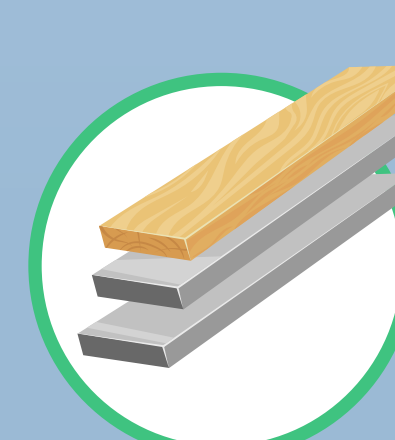
RESULTING MATERIALS



FIBERGLASS



RESIN

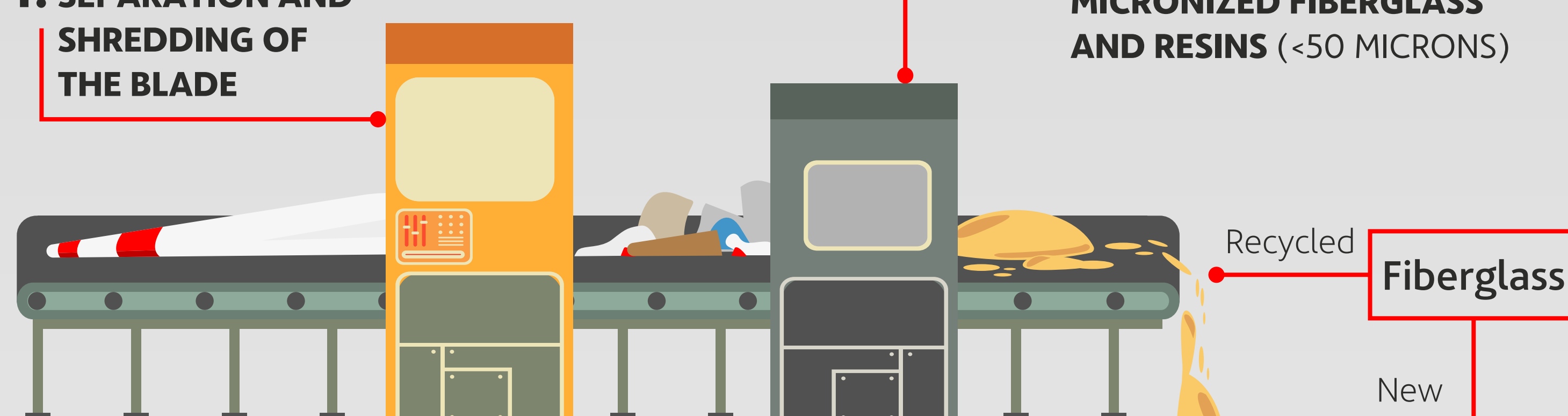


OTHERS
(WOOD AND PLASTICS)

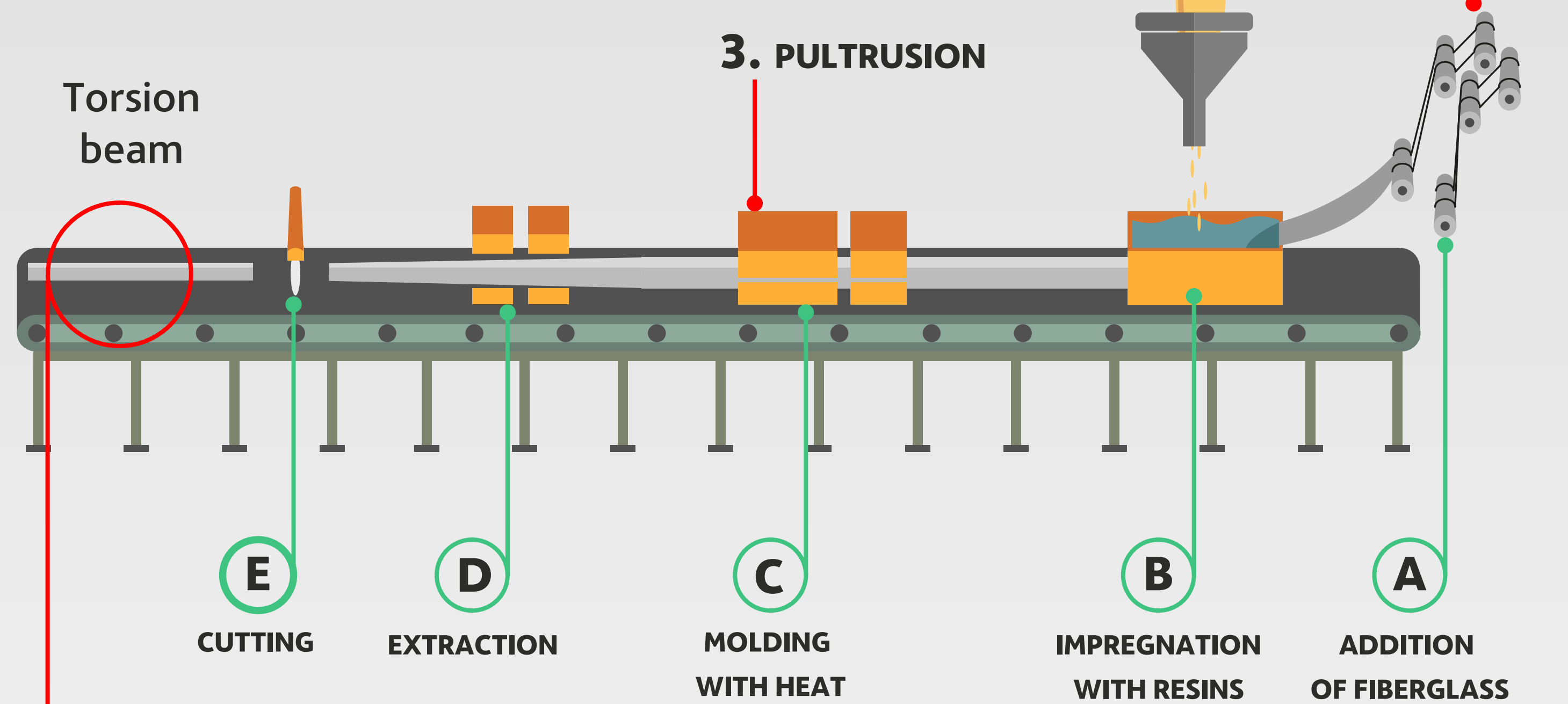
AN EXAMPLE OF RECYCLING: FROM WIND TURBINES TO SOLAR PANELS

The Extremadura I-II-III solar photovoltaic plant beams

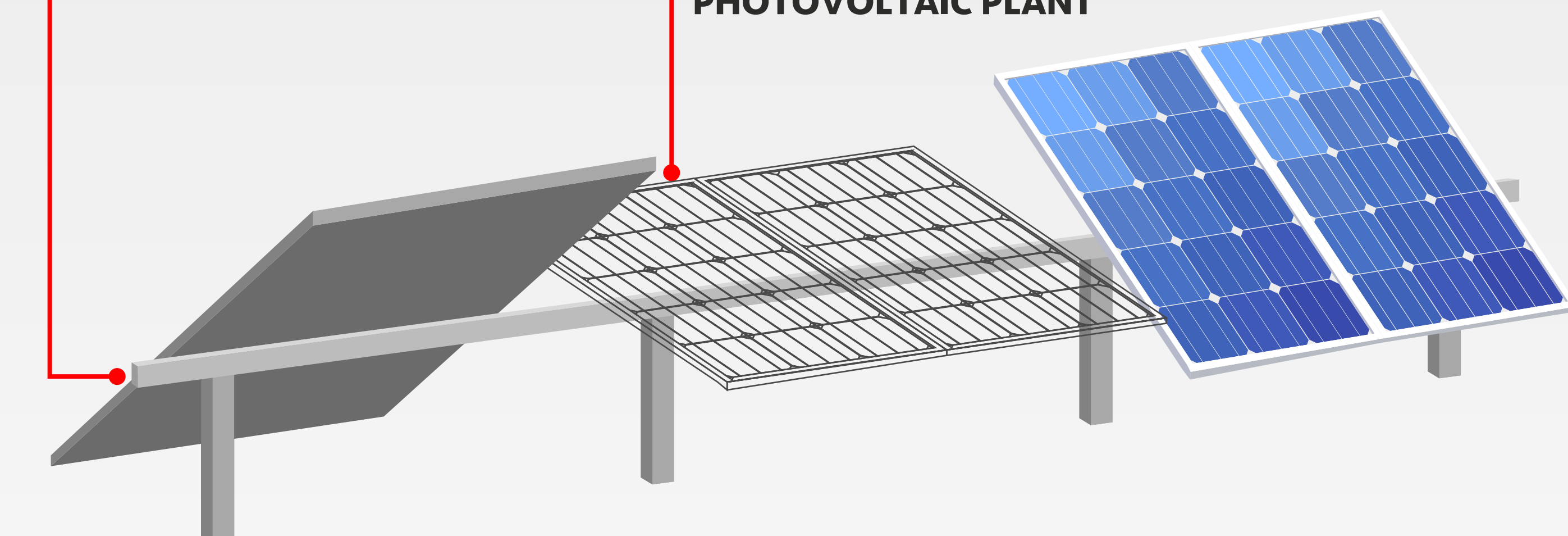
1. SEPARATION AND SHREDDING OF THE BLADE



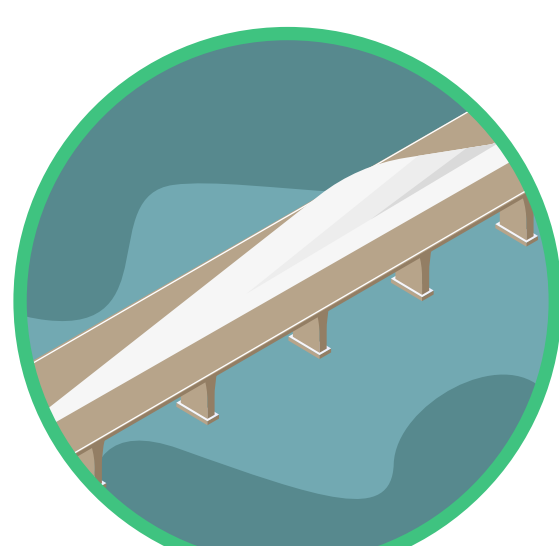
2. MICRONIZATION: MICRONIZED FIBERGLASS AND RESINS (<50 MICRONS)



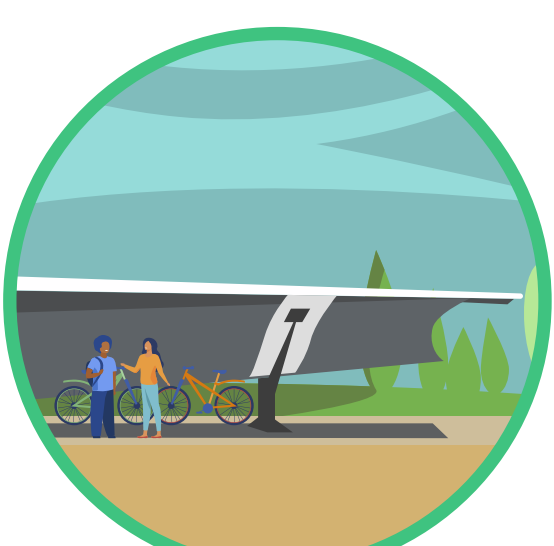
4. ASSEMBLY IN THE PHOTOVOLTAIC PLANT



EXAMPLES OF REUSE: Repurposing cross-sections



Bridges



Canopies



Benches



Playgrounds



Charging stations