

WHAT TO DO WITH SOLAR WASTE

BBB Industries, LLC



Case Study

People have always looked for new ways to generate electricity. Today, many households and companies are turning to solar panels. Due to availability, energy costs, and environmental benefits, more are expected to install solar systems in the coming years. This technology harnesses the energy from the sun and converts it to electricity.

The International Renewable Energy Agency projects global solar capacity to grow from the 2020 figure of 710 gigawatts to 4,500 GW by 2050, a 2,045% percent growth. To put this in perspective, a 4,500 GW solar farm, if composed of the average panel size (15 Square Feet) and generation capacity (400 Watts), would be about 6 times the size of the city of Dallas or 3 million football fields.



The growth in solar implementations is terrific news for clean energy development, but let's consider another aspect of this new technological growth and the large amount of annual waste expected by the early 2030s. Solar Panels are made of essential materials like glass, silicon, and aluminum. Do we have to throw them away when they are broken?

According to the International Renewable Energy Agency, the average lifespan of a solar panel is 30 years. At this rate we would generate 60 million tons of solar waste by 2050. (The equivalent of 8.5 million adult elephants.)

That is a lot of waste. However, this does not consider general wear and tear or solar panel upgrades. What about hail-cracking glass, other natural disasters, or just general technology faults? With this in mind, The IRENA forecasts 78 million GW of panel waste by 2050. Respectively, that is 8 million tons of solar waste in 2030, only 6 years away!

So, what can we do about this problem? Sustainable manufacturing by TERREPOWER takes broken and worn products and gives them new life. This is a process that can restore the panels to their original capabilities. Sustainable manufacturing is a circular process that has been implemented by BBB Industries since 1987. TERREPOWER focuses on receiving damaged solar panels, identifying their ability to be fixed, and applying the best process. This could be restoring them to their original application or recycling the materials which can unlock critical raw materials and other high-value components.

BBB Industries and its TERREPOWER division, want to make the global transition to solar energy sustainable, ensuring that we take responsibility for every aspect of the value chain, from creation to end-of-useful life and beyond.

References

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