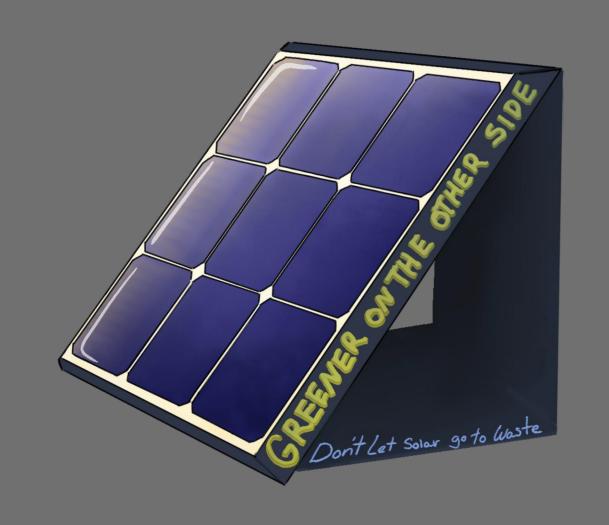


Don't Let Solar Go To Waste

By Nicole Close, Sofia Eckerson, Madison Quattlander, Mackenzie Appleyard Geoffrey Pfeifer, Marja Bakermans



Problem: In the US the recycling of solar panels is not regulated, causing issues with end-of-life treatment resulting in more waste.



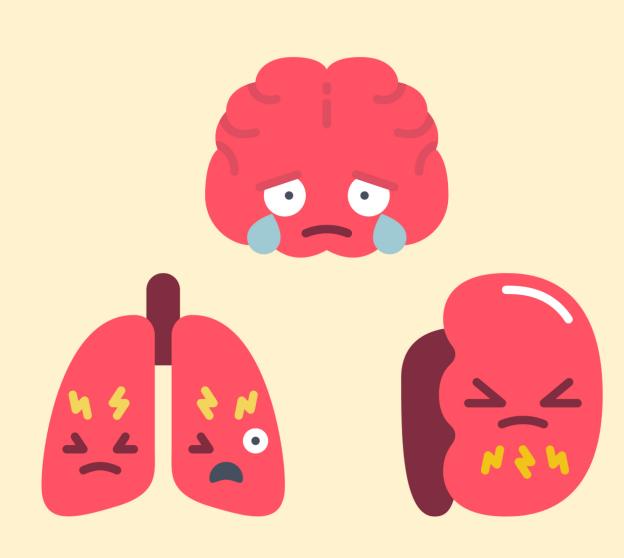
Only 10% of solar panels in the US are currently recycled

By 2050, solar panels will make up 9 million tons of waste - 10% of all e-waste



Cadmium

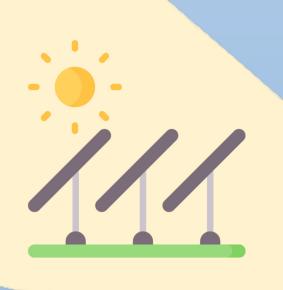
- Kidney Disease
- Liver Disease
- Lung Damage
- Softens Bones
- Cancer



Lead

- Kidney Disease
- Heart Disease
- High BloodPressure
- Depression
- Cancer

California houses 7 out of the 10 largest solar farms in the United States



25% of all energy produced in the state comes from solar power

California is the first state to classify solar panels as universal waste, making recycling easier and cheaper

This is one of only two policies addressing endof-life panel treatment



Methods

Research

Narrow

Analyze

Solutions

Solutions

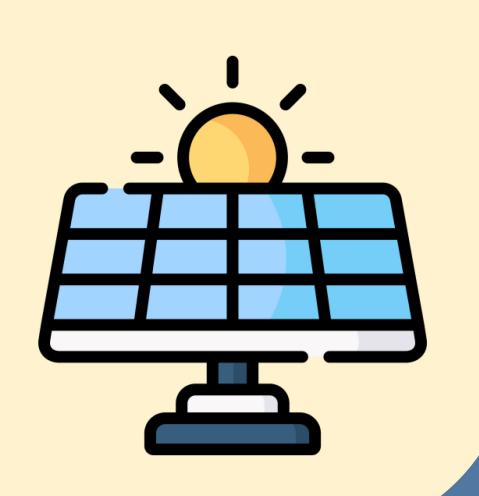


Regulations that hold manufacturers accountable for end-of-life treatment of panels.

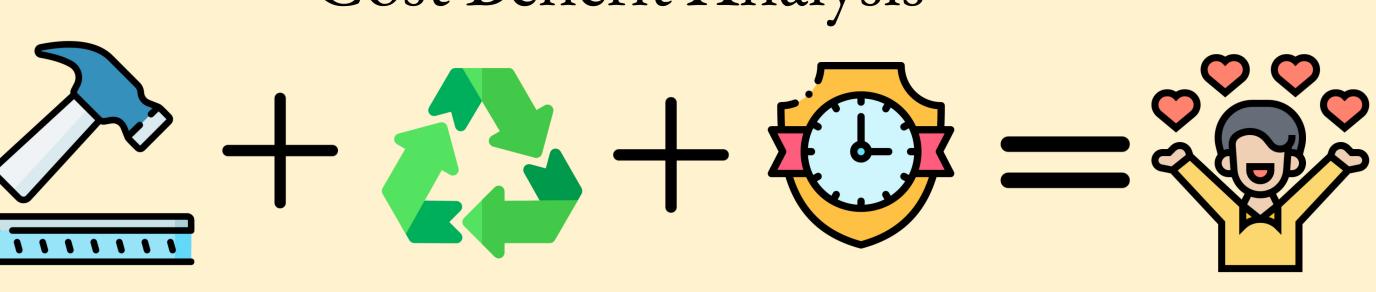
More accessible recycling alternatives such as reuse and refurbishment

Thin Film vs. Crystalline Silicon

- Less Expensive
- Low Efficiency
- Durable
- Available in thin wafer sheets
- More Expensive
- High efficiency
- Fragile
- Long life



Cost Benefit Analysis



Durability + Recyclable + Long Lasting EOL = Customer confidence, market incentive, and accessibility to all!

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