

DoE E-SCRAP Challenge: Solar Cell Recycling



Problem / Opportunity

- PV Recycling must improve
 - \circ Landfill concern / public perception
 - $\circ\,$ Helps solve supply constraints
 - $\circ\,$ Necessary for circularizing high growth economy
- Recycling currently uses 2 approaches:
 - $\circ\,$ Thermochemical, resulting in toxic waste stream
 - \circ Electromechanical (EM), with incomplete separation
- Better eddy current separation can improve the EM approach to make material recovery more economical

Team Lunexus Solution

- New eddy current approach to separate smaller particles of metals from silicates
 - $\circ\,$ INCUBATE: Market Analysis, LCA Impact
 - \circ PROTOTYPE: Design & Prototyping
 - \circ DEMONSTRATE: Beta Test at recycler

