

LITHIUM-ION BATTERY RECYCLING PRIZE



U.S. DEPARTMENT OF ENERGY

Team Name:	Battery Pack
Primary Submitter Name:	Matthew Weaver
City and State:	Somerville, MA
Member Names (including partners and affiliates):	Magali Spinetta, Tony Dopazo, Matthew Weaver, Sean O'Day, Sean Becker, Reece Daniel, Alan Killian, Jack Hawkins, Ed Gilbert, Newton Resource Recovery Center
Submission Title:	Li ion Share
Submission Track:	Track 5: Other Ideas

A Public Document



Concept

All energy storage has potential, recycled battery packs put that potential back to work. Every recycled battery pack creates local power and brings communities one step closer to sustainability while providing green jobs.

The recycled battery packs will supply stored energy that can be used for transportation and keeping the lights on. And the ability to provide energy storage options at a fraction of the current cost will incentivize complete collection and recycling of lithium ion batteries.

Approach

Through partnerships with local hazardous waste recyclers we will source the batteries needed to create recycled battery packs. Once the batteries are collected, the individual cells will be separated, characterized, sorted, and aggregated into recycled battery packs.

The reuse of lithium ion batteries provides a unique entry point for energy storage in communities. Local processing reduces the cost and barriers to entry so that communities can provide electric transportation and energy storage in a sustainable fashion.

Every recycled battery pack makes the community more resilient and supplies the power needed to recycle more batteries.

Potential Impact

- Creation of green jobs and sparking the conversation around local energy storage.
- Reduction of the cost of hazardous waste disposal on municipalities and recyclers.
- A 500 Watt-hour recycled battery pack can provide 35 miles of pedal assisted mobility.
- With scale and optimization we will provide Mega-Watts of local storage energy.
- Economies benefit from people's ability to move around and access clean affordable energy.
- Increase local awareness in sustainability.