Welcome to Today’s Webinar
DOE's Lithium-Ion Battery Recycling Prize
August 04, 2021
1:30 pm – 4:00 pm EST
Brought to You By:

Presented in Partnership with the NCDEQ Division of Waste Management – Hazardous Waste Section
Webinar Housekeeping

• If You Have Audio Trouble: Switch to phone (see number and code in Audio section of the webinar toolbox)

• Slides, Handouts and Recording will be posted to the ESI Events Website (can be accessed via deq.nc.gov)
Participation

Mute/Unmute

How to Ask Questions:

1. Raise your hand.
2. Use the Question Box.
Environmental Stewardship Initiative

- DEQ recognition program
- Promotes and encourages superior environmental performance
- Voluntary program; no cost
- Going beyond compliance while conserving natural resources and resulting in economic benefits
- Approximately 200 member sites
- Networking and training benefits

For more information contact:
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<table>
<thead>
<tr>
<th>REUSE</th>
<th>2019 ESI MEMBERS REPORTED RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass Recovery**</td>
<td>77,351 Tons</td>
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<tr>
<td>Total Recycled Volume</td>
<td>186,998 Tons</td>
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</tbody>
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<table>
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<tr>
<th>REDUCTIONS</th>
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<tbody>
<tr>
<td>Air Emissions</td>
<td>247 Tons</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions*</td>
<td>24,190 Metric Tons CO\textsubscript{2}e</td>
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<tr>
<td>Hazardous waste</td>
<td>158 Tons</td>
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<tr>
<td>Landfilled waste</td>
<td>803 Tons</td>
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<tr>
<td>Energy</td>
<td>838,230 mmBtu</td>
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<tr>
<td>Water Use</td>
<td>1,050,057,201 Gallons</td>
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<tr>
<td>Material Consumption</td>
<td>265 Tons</td>
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<tr>
<td>Wastewater Pollutants</td>
<td>399,871 Tons</td>
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<tr>
<td>Wastewater Volume</td>
<td>3,630,628,382 Gallons</td>
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**TOTAL COST SAVINGS $ 11,287,397**
ESI Members

[Logos of various companies]
Waste Reduction Partners

• Innovative partnership between NCDEQ and the Land of Sky Regional Council
• Non-regulatory
• Typically no cost
• Assist facilities improve environmental and energy management through efficiency techniques that save money
• Provides consulting services using 40 retired engineers and scientists
• Conducts on-site assessments and provides cost saving strategies and resources
• Client cost savings since the year 2000: $137 Million
• Client energy saving since 2000: 5.66 Trillion BTUs

For Services Contact: Terry Albrecht (828) 251-7475
talbrecht@wrrpnc.org
www.wastereductionpartners.org
Presenters & Panelists

DOE's Lithium-Ion Battery Recycling Prize

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Senior Mechanical Engineer, Battery Recycling Prize Technology Program Manager, National Renewable Energy Laboratory

- David Young: Li Industries (david.young@li-ind.com)
- John Shusterich: Clarios (john.shusterich@clarios.com)
- Lauren Crandon: Onto Technology (lcrandon@onto-technology.com)
- Trish Tran: Smartville (trish@smartville.io)

batteryrecyclingprize@nrel.gov
Li Industries
Machine learning-based, automated Smart Battery Sorting System.
David Young
david.young@li-ind.com

OnTo Technology
Deactivate, identify, sort, and cut (DISC) solution for end-of-life processing.
Lauren Crandon
lcrandon@onto-technology.com

CLARIOS
Powering the Future
Leveraging the existing network of collection for lead-acid batteries to collect end of life LIBs.
John Shusterich
john.shusterich@clarios.com

Renewance
Renewance Connect digital platform tracks and manages LIBs throughout their full life cycle.

SMARTVILLE
Smartville
Distributed heterogeneous unifying battery facilities to reduce costs in the reverse logistics supply chain.
Trish Tran
trish@smartville.io

EVERLEDGER
Team Portables
Reward to Recycle is a smartphone app that rewards consumers for recycling.

TITAN
Titan Advanced Energy Solutions
Battago Battery Market Intelligence platform built to generate, aggregate, and connect data.

https://www.herox.com/BatteryRecyclingPrize
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Thanks for Attending!

Watch for a survey for your feedback and check out the ESI webpage (www.ncesi.org) webinar materials and recording link!