Energy Storage Association
Corporate Responsibility Initiative

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The U.S. Energy Storage Association is a trade association that works toward a more resilient, efficient, sustainable and affordable electricity grid – as is uniquely enabled by energy storage

- ESA represents a diverse group of companies, including independent power producers, electric utilities, energy service companies, financiers, insurers, law firms, installers, manufacturers, component suppliers and integrators

- ESA encompasses a broad spectrum of energy storage technologies, including mechanical, thermal, electrochemical and pumped hydropower

- ESA’s mission is to accelerate the widespread use of competitive and reliable energy storage systems in North America
ESA Leadership Circle Members 1/1/2020
ESA Full Members 1/1/2020
The Potential of Energy Storage

Because storage lies at the hub of a more resilient, reliable, sustainable and affordable grid, it has the power to revolutionize the energy system.
Global Growth Shows the Great Power of Storage

U.S. lithium-ion battery manufacturing capacity

Source: Bloomberg New Energy Finance & Business Council for Sustainable Energy
2020 Sustainable Energy in America Factbook
(February 2020)

Source: Global Battery Alliance and World Economic Forum
A Vision for a Sustainable Battery Value Chain in 2030
(September 2019)
There’s a Catch – the Parker Principle

“With great power comes great responsibility”

Benjamin Franklin Parker (aka “Uncle Ben”) to Peter B. Parker (aka “Spiderman”)
The ESA Corporate Responsibility Initiative (CRI)

Launched April 18, 2019 at ESA Annual Conference in Phoenix

• 30 initial signatory companies (now 55) who pledge to:
  – engage in a good-faith effort to optimize performance, minimize risk and serve as an exemplary corporate citizen in the implementation and operation of energy storage projects
  – contribute experts in the field to a taskforce that will work to establish best practices in the following areas: potential operational hazards, end-of-life and recycling, and responsible supply chain practices
• ESA membership is not required to become part of the CRI

These three areas listed above correspond to potential adverse impacts that might arise during the rapid expansion of deployed energy storage systems

• Social/environmental harm from inputs used to produce energy storage systems
• Hazards arising from operation of deployed systems
• Environmental and economic impacts of waste from retired facilities
Three products were issued from the CRI Safety Track in 2019*

  - the history of the industry’s attention to thermal event prevention
  - current codes and standards governing thermal event provisions for battery storage systems
    - focus on UL9540 & 9540A, NFPA 855 and DNV GL RP43
    - communication and training best practice guidelines for developers and operators

  - guides users to current codes and standards that support the safe design & planning, operations, and decommissioning of grid-connected energy storage systems
  - presents recommendations for hazard reduction and mitigation

- **Emergency Response Plan** (CRI Template)
  - covers a wide range of emergency situations, e.g. extreme weather, fires, security incidents
  - highest priorities: protect the safety of staff, first responders, the public, and the environment

* Found at https://energystorage.org/about-esa/energy-storage-corporate-responsibility-initiative/
The CRI End-of-Life Track

Two products from the CRI End-of-Life will be released in 2020

  - describes the current state of Li-ion battery disposition requirements and practices, including those that apply to EV batteries
  - Identifies opportunities to improve technologies, markets and industry practices to enhance the rate of material recycling and reuse

  - guides users to current codes, standards and regulations that apply to decommissioned stationary storage systems and their components
  - describes current and likely future markets and practices that might emerge to enable greater reuse and recycling of Li-ion battery systems
The CRI Supply Chain Track

The Supply Chain Track just started planned completion by the end of 2020

• In the process of defining scope and issues to address
  – Relevance to End-of-Life Track via “circular economy” framework, i.e. supply chain may include substantial inputs derived from reuse/recycling activities
  – Many possible related issues – trade policy, national security, critical materials, etc.
  – Some opportunities to coordinate and leverage other parties’ research (e.g., Atlantic Council Global Energy Center)
Not Yet Involved But Interested?

We are still recruiting contributors to this effort! Joining is straightforward:

• Go to [https://energystorage.org/about-esa/energy-storage-corporate-responsibility-initiative/](https://energystorage.org/about-esa/energy-storage-corporate-responsibility-initiative/) for a downloadable copy of the CRI Pledge and answers to Frequently Asked Questions
• Call me if you have additional questions
• Sign the CRI Pledge
  – Signature by Authorized Representative
  – The pledge represents a corporate commitment, not an individual one
• Return signed copy to ESA
  – The pledge becomes a public corporate commitment
• We have a full agenda for 2020 and will appreciate your participation
Thank You!

Questions?

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