

# Environmental impact assessment of lithium battery energy storage



## Overview

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This thesis provides an assessment of the life-cycle environmental impact of a lithium-ion battery pack intended for energy storage applications in 16 different impact categories.

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### [Estimating the environmental impacts of global lithium-ion battery](#)

Understanding the environmental impact of electric vehicle batteries is crucial for a low-carbon future. This study examined the energy use and emissions of current and future battery

### **Environmental Assessment of Lithium-Ion Battery**

This review analyzed the literature data about the global warming potential (GWP) of the lithium-ion battery (LIB) lifecycle, e.g., raw material mining, production,



### **EPA in Florida , US EPA**

Portal for news and information about EPA's efforts in Florida and Hot Topics, Environmental Information, Events, Public Notices and Press Releases, Recent News, Federal &

### [Environmental Impact Assessment in the Entire Life Cycle of Lithium](#)

The growing demand for lithium-ion batteries (LIBs) in smartphones, electric vehicles (EVs), and other energy storage devices should be correlated with their environmental impacts from



### [Life Cycle Assessment of a Lithium-Ion Battery Pack for Energy](#)



### Laws & Regulations , US EPA

Overview of EPA's law and regulatory information, including complying with and enforcing environmental regulations.

This thesis provides an assessment of the life-cycle environmental impact of a lithium-ion battery pack intended for energy storage applications in 16 different impact categories.



### U.S. Environmental Protection Agency , US EPA

Website of the U.S. Environmental Protection Agency (EPA). EPA's mission is to protect human health and the environment.

### [Life cycle assessment of lithium-based batteries: Review of](#)

This review offers a comprehensive study of Environmental Life Cycle Assessment (E-LCA), Life Cycle Costing (LCC), Social Life Cycle Assessment (S-LCA), and Life Cycle Sustainability



### [Environmental Impact of Lithium-Ion Battery Fires vs Other](#)

Research comparing air, water, and soil impacts of lithium-ion battery fires in Energy Storage Systems (ESS) with other common fires.

### Environmental Topics , US EPA

EPA's resources on environmental issues include research, basics, what you can do, and an index

covering more specific terms.



### [Environmental Impact Assessment in the Entire Life Cycle of](#)

This review paper analyses and categorizes the environmental impacts of LIBs from mining their constituents, their usage and applications, illegal disposal, and recycling.



### **Environmental Justice Strategic Plan**

The goals, objectives, priority actions, and metrics identified in this EJ Strategic Plan are rooted in the agency's historic commitment to environmental justice, as demonstrated by over 32 years of



### [Life cycle environmental impact assessment for battery-powered](#)

As an important part of electric vehicles, lithium-ion battery packs will have a certain environmental impact in the use stage. To analyze the comprehensive environmental impact, 11



### **Environmental health**

Healthier environments could prevent almost one quarter of the global burden of disease. The COVID-19 pandemic is a further reminder of the delicate relationship between people and our



### [EPA is Racking Up Massive Environmental](#)



### [Environmental impacts, pollution sources and pathways of spent](#)

Lithium-ion batteries (LIBs) are permeating ever deeper into our lives - from portable devices and electric cars to grid-scale battery energy storage systems, which raises concerns over the safety and



### [Accomplishments Under](#)

Learn about the major strides EPA has taken to safeguard human health and the environment, ensuring clean air, land, and water for every American under the Trump Administration.



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