

Carbon footprint of Japanese and Korean battery companies

In terms of CO₂ emissions, using the most recent data, Japan holds the 5th position with an annual emission of 1.1 gigatons of CO₂, and South Korea the 9th position with 0.61 gigatons (GCA (Global Carbon Atlas), 2021). Both countries launched diverse policy instruments with ambitious goals from mid to long-term to tackle this issue. Both ...

Strong growth in lithium-ion battery (LIB) demand requires a robust understanding of both costs and environmental impacts across the value-chain. Recent announcements of LIB manufacturers to venture into cathode active material (CAM) synthesis and recycling expands the process segments under their influence. However, little research has yet ...

Visualization of the Carbon Footprint; Technology for Carbon Neutral; Trends in information disclosure related to climate change (TCFD) Asia Zero Emission Community (AZEC) Press Releases METI Official's Meetings / International Conferences. The Sixth International Conference on Carbon Recycling Held (October 11, 2024) Clean Energy Public-Private ...

o The study examines how Japan's carbon footprint is calculated and how risks in the supply chain are continuously assessed and reduced (due diligence). At the same time, harmonize with overseas systems while starting trial projects. o Consider measures such as standardization of ...

Reducing the carbon footprint of LIB requires more than just low-carbon electricity during production - it involves concerted efforts among all stakeholders along the industry ...

The Ministry of Economy, Trade and Industry (METI) held a series of meetings of the "Study Group on Product Carbon Footprint Calculations and Verification for Supply Chain-Wide Carbon Neutrality" and compiled a report on the current situation of carbon footprints and the future directions thereof as well as guidelines for ...

Based on the results of the meetings of the Study Group on Product Carbon Footprint Calculations and Verification for Supply Chain-Wide Carbon Neutrality, the Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE) have jointly prepared a practical guide to help companies tackle related efforts involving carbon footprints, ...

Battery cell carbon footprint breakdown (2022) Source: S& P Global Mobility, Battery Cell Carbon Footprint Forecast Data compiled Oct. 10, 2023 13 Battery cell carbon footprint breakdown Battery cell accounts for 43% of the total carbon of materials, and cathode contributes the most with 58%. 43% 18% 6% 5% 4% 3% 14% 0% 20% 40% 60% 80% 100% ...

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Product carbon footprints (PCFs) are playing an increasing role in decisions around sustainability for companies and consumers. Using data reported to CDP, we have previously built a dataset of ...

First, LG Energy Solution introduced the LCA in 2019. This assesses the potential impacts of its battery products. Based on the results, LG Energy Solution calculates the carbon footprint, identifies hot spots in the raw ...

The Ministry of Economy, Trade and Industry (METI) held a series of meetings of the "Study Group on Product Carbon Footprint Calculations and Verification for Supply ...

This report analyses the emissions related to batteries throughout the supply chain and over the full battery lifetime and highlights priorities for reducing emissions. Life cycle analysis of electric cars shows that they already offer emissions reductions benefits at the global level when compared to internal combustion engine cars. Further increasing the sustainability ...

Combining the emission curves with regionalised battery production announcements, we present carbon footprint distributions (5 th, 50 th, and 95 th percentiles) ...

SLCA of LFP battery production does deserve to be emphasized in both material supply concentration and social footprint. The former is not only the basis of social footprint but also the desired topic with a popular practice in research articles recently. Kushnir and Sand#233;n (2012) considered that the lithium batteries production system is more likely to be vulnerable ...

Reducing the carbon footprint of LIB requires more than just low-carbon electricity during production - it involves concerted efforts among all stakeholders along the industry value chain to make significant progress. In this commentary, we emphasize the importance of coordinated actions by these groups and provide an outlook on current and ...

Among the Japanese government"s efforts on climate change, METI will focus its efforts on innovative technologies and financial investments for the decarbonization of all sectors. Interim Report of the Clean Energy Strategy has been compiled by METI in May 2022.

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