html

Product Carbon Footprint Dashboard for mrevzfrkld

carboncalcpcf.com

5.506

kgCO2e / unit (Net PCF)

5.506

TOTAL PCF (KGCO2E / UNIT)

11.01

CARBON INTENSITY (KGCO2E / KG)

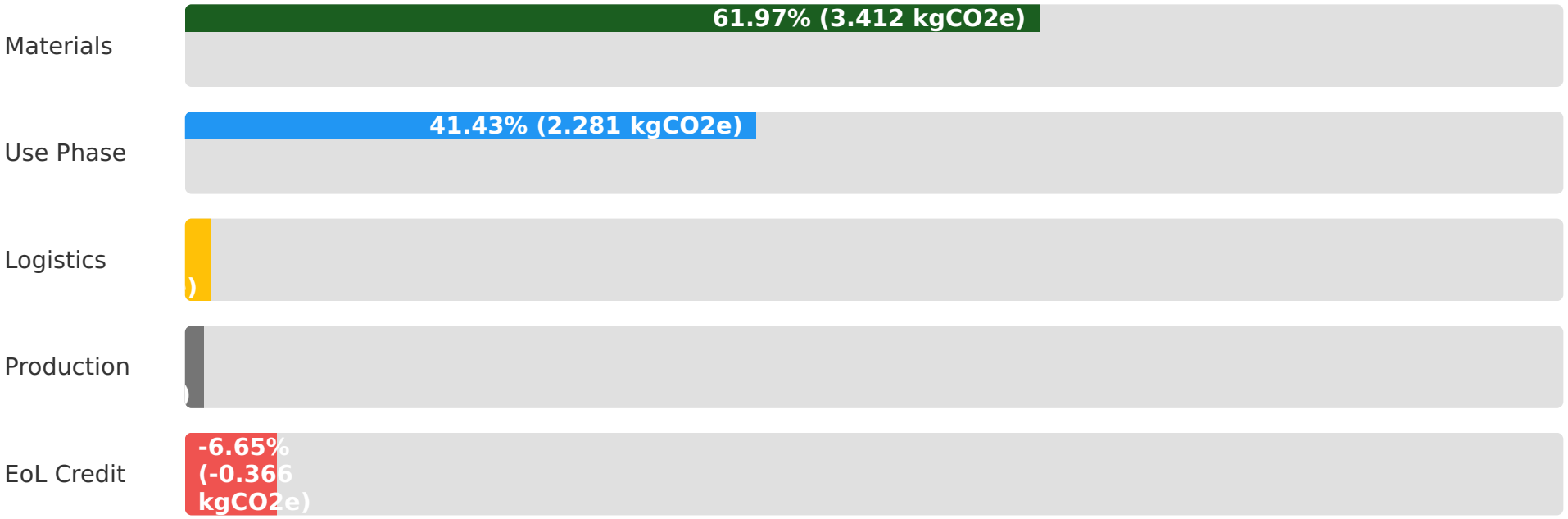
Lithium-ion Battery

TOP MATERIAL HOTSPOT

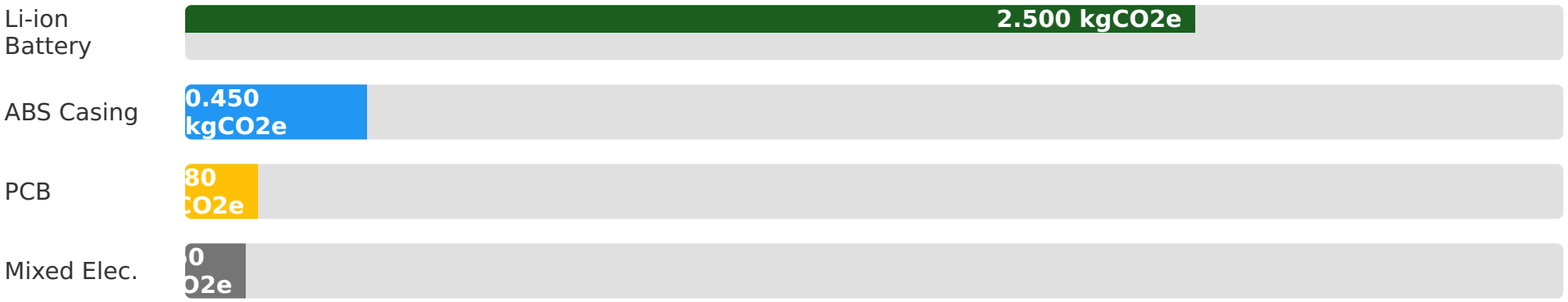
Scope 3

PRIMARY EMISSION SCOPE

Lifecycle Stage Breakdown



Top Material Carbon Impact



Key Highlights

- **Raw Material Acquisition** dominates, accounting for ~62% of emissions, primarily driven by the Lithium-ion battery and plastics.
- The **Use Phase** contributes significantly, around 41% of the total PCF, with its impact heavily dependent on the energy grid mix where the product is used.
- **End-of-Life** initiatives, including high recyclability (70%) and take-back programs, provide a notable reduction of 6.65% to the overall footprint.

Recommendations for Decarbonization

→ **Material Optimization:** Prioritize sourcing lower-carbon alternative materials, especially for batteries and plastics, and investigate higher recycled content.

→ **Energy Efficiency in Use:** Implement further design improvements to reduce the product's energy consumption during its 5-year lifespan. Providing users with clear guidelines can also contribute.

→ **Enhance Circularity:** Continue and expand take-back and recycling programs. Design for even greater recyclability and ease of disassembly to maximize end-of-life benefits.

→ **Supply Chain Engagement:** Actively collaborate with raw material suppliers to identify and reduce emissions at the extraction and processing stages.

→ **Renewable Energy Adoption:** Increase the percentage of renewable energy used in manufacturing facilities and encourage suppliers to do the same.