carboncalcpcf.com

nshkhpnuvj (AlphaGadget X1)

Company: imgqqogtyu (EcoSolutions Inc.) | **Standard:** GHG Protocol | **Boundary:** Cradle-to-Grave

24.88
Total PCF (kg CO2e / unit)

Total Footprint

24.88

kg CO2e / unit

Carbon Intensity

26.19

kg CO2e / kg product

Top Material Hotspot

Aluminum Frame

34.48% of material impact

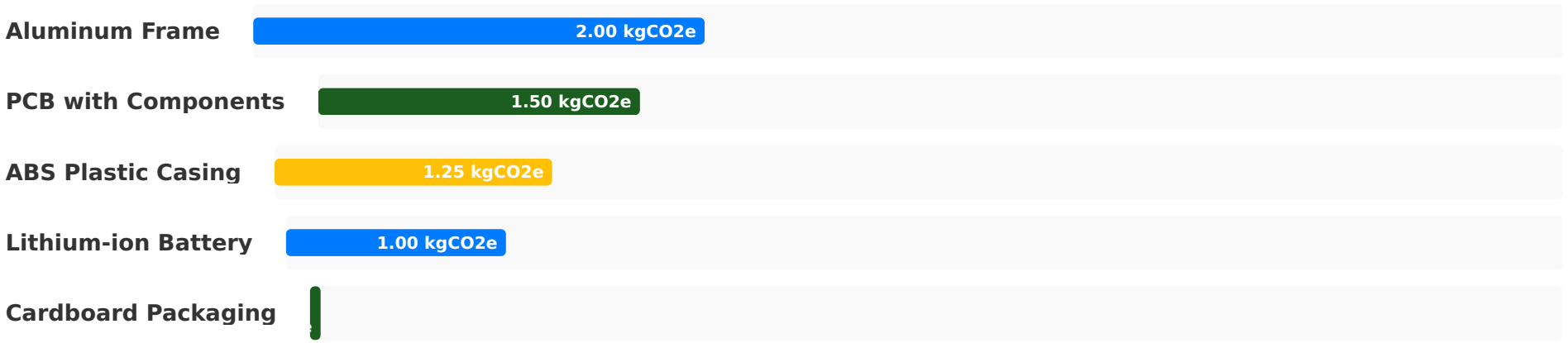
Primary Emission Scope

Scope 3

96.89% of total PCF

Lifecycle Stage Breakdown

Material Im akdown (kgCO2e)



Key Highlights

Use Phase Dominance: The product's Use Phase accounts for a staggering 80.37% of the total carbon footprint, primarily due to electricity consumption over its 5-year lifespan. This is the single largest hotspot.

Material Impact Significant: Material Acquisition & Pre-processing contribute 23.39% to the total PCF, with Aluminum Frame being the top material hotspot, underscoring the importance of sustainable sourcing.

End-of-Life Benefit: A high recyclability rate (70%) combined with the company's take-back program results in a net carbon *reduction* of -1.85 kgCO2e at End-of-Life, showcasing effective circular economy efforts.

Action Plan for Reduction

Optimize Use Phase Efficiency: Implement product design changes for lower energy consumption during the 5-year lifespan and encourage customer use of renewable energy.

Source Sustainable Materials: Prioritize recycled content for components like the Aluminum Frame and explore lower-carbon alternatives or collaborate with suppliers on decarbonization.

Enhance Circularity: Expand the existing take-back programs to maximize product recovery and further increase recycling rates, building on the current End-of-Life benefits.

Improve Data Accuracy: Invest in collecting primary data for high-impact components and obtain specific grid electricity mixes for all manufacturing and user regions for higher precision.