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carboncalcpcf.com

Eco-Smart Gadget X (uyeohzpjor)

Total Carbon Footprint: **7.481 kg CO2e**

Functional Unit: 1.0 unit Standard: GHG Protocol, 2026 LSR Update Production Country: China

System Boundary: Cradle-to-Grave

Total Footprint

7.481 kg CO2e

Carbon Intensity

7.481 kg CO2e/unit

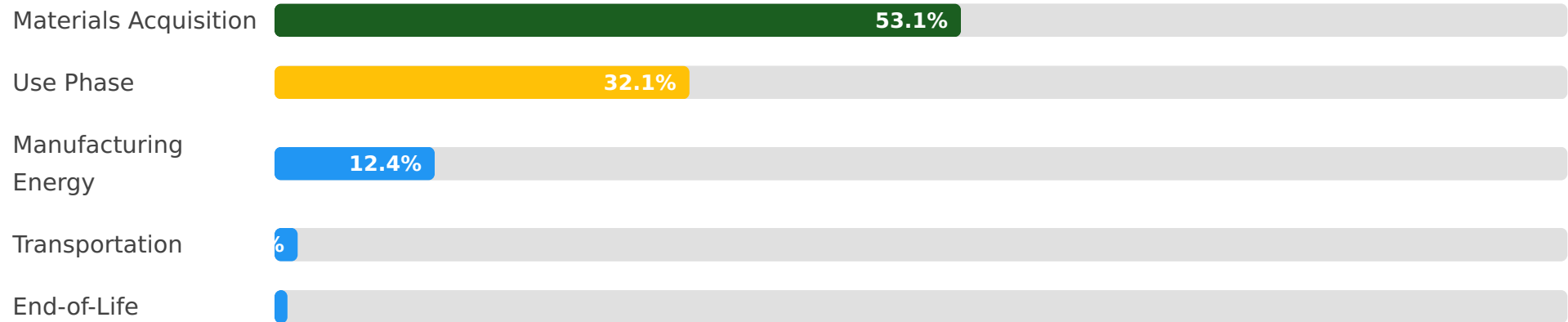
Top Hotspot

Materials (53.1%)

Primary Scope

Scope 3 (Upstream & Downstream)

Lifecycle Stage Breakdown



- **Materials Acquisition & Pre-processing (53.1%):** This stage is the largest contributor, highlighting the significant impact of raw material choices, particularly aluminum and electronic components.
- **Use Phase (32.1%):** The product's energy consumption during its 3-year lifespan contributes substantially, underscoring the importance of energy-efficient design and grid carbon intensity.
- **Manufacturing Energy (12.4%):** Despite 70% renewable energy use, the remaining 30% from China's grid still contributes a noticeable portion to the overall footprint.

Recommendations for Decarbonization

- **Material Optimization:** Explore alternative, lower-carbon materials for high-impact components like the aluminum body and electronic parts. Increase recycled content and design for disassembly.
- **Energy Efficiency in Use:** Enhance the energy efficiency of the product to reduce consumption over its lifespan. Provide clear guidance to consumers on energy-saving practices.
- **Renewable Energy Procurement:** Continuously increase the share of renewable energy in manufacturing facilities and encourage supply chain partners to do the same.
- **Logistics Optimization:** Further optimize transport routes and modes, prioritizing lower-emission options. Leverage the "Integrated Product Take-Back and Remanufacturing Program" for circularity.