

html

Product Carbon Footprint: Ifozpzfseo

carboncalcpcf.com

Total Carbon Footprint

120.66 kg CO₂e

Product

Ifozpfseo

1.0 unit

Carbon Intensity

120.66

kg CO2e / unit

Top Material Hotspot

Circuit Board

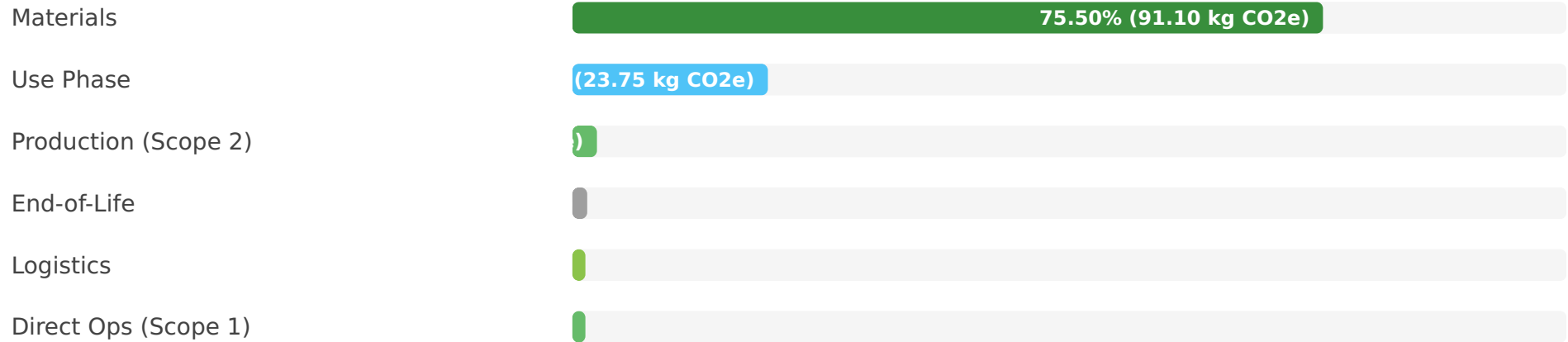
50.0 kg CO2e

Primary Emission Scope

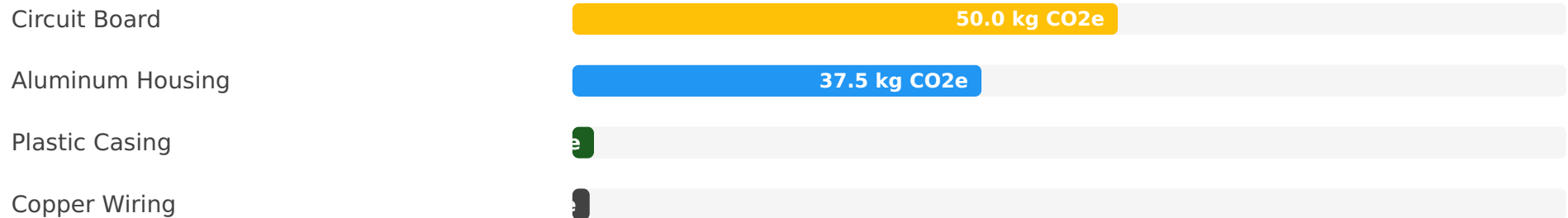
Scope 3

Upstream Materials

Lifecycle Stage Breakdown



Material Carbon Impact



Key Highlights

- The **Upstream Materials** (Scope 3) represent the dominant emission hotspot, contributing 75.50% of the total carbon footprint.
- The **Use Phase** (Scope 3) is the second most significant contributor, accounting for 19.68% of emissions over the product's 5-year lifespan.
- **Circuit Board** and **Aluminum Housing** are the highest-impact materials within the Bill of Materials, indicating critical areas for decarbonization efforts.

Recommendations for Decarbonization

1. **Prioritize Material Decarbonization:** Focus on engaging suppliers for high-impact materials (Circuit Board, Aluminum Housing) to find lower-carbon alternatives or increase recycled content.
2. **Enhance Energy Efficiency in Use Phase:** Investigate opportunities to reduce the product's energy consumption during its use, through design improvements or more efficient components.
3. **Increase Renewable Energy Sourcing:** Aim for 100% renewable electricity at production facilities to further reduce Scope 2 emissions, building on the commendable 75% already achieved.
4. **Optimize Logistics:** Explore routes, modes (e.g., shifting from air to sea/rail), and improve load factors to minimize transport emissions.
5. **Strengthen Circularity:** Leverage take-back and recycling programs to maximize material recovery and explore designing for disassembly and modularity.