Product Carbon Footprint Report

Product: **nqgnqozgid** | System Boundary: factory_gate | Standard: GHG Protocol

25.80 kg CO2e / unit

Total Footprint

25.80

kg CO2e / unit

Carbon Intensity

25.80

kg CO2e / 1.0 unit

Top Material Hotspot

PCB

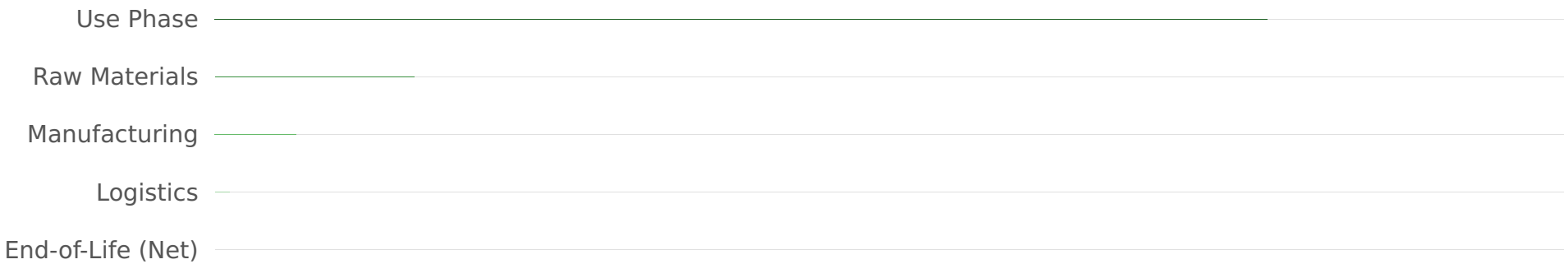
1.50 kg CO2e

Primary Emission Scope

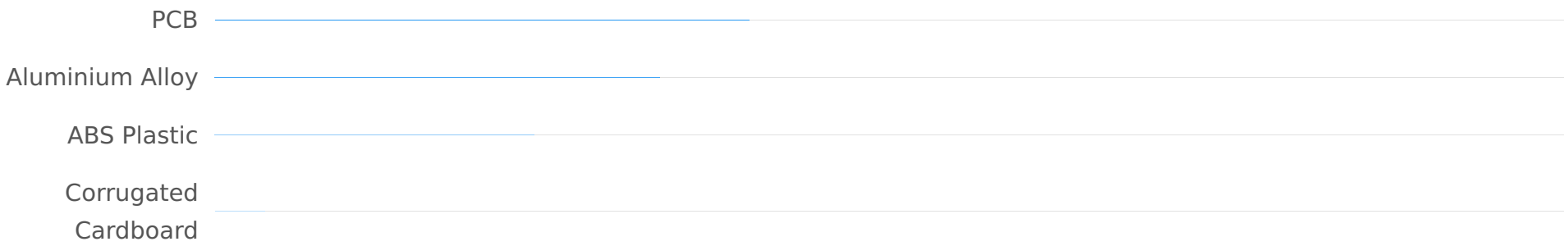
Scope 3

Use Phase

Lifecycle Stage Breakdown



Material Carbon Impact



Highlights & Emission Hotspots

- The **Use Phase** is the dominant emission source, accounting for approximately **78%** of the product's gross carbon footprint (20.00 kg CO2e/unit).
- **Raw Material Extraction & Processing** represents the second largest hotspot at **14.8%**, with Printed Circuit Boards (PCBs) being the most impactful material component.
- The product benefits from a net carbon saving at its **End-of-Life** phase (-0.32 kg CO2e/unit), thanks to its high recyclability (70%) and active circular programs.

Recommendations: How to Reduce Carbon Footprint

1. **Enhance Product Energy Efficiency:** Redesign 'nqgnqozgid' to significantly reduce its energy consumption during the use phase.
2. **Sustainable Material Sourcing:** Prioritize materials with lower embodied carbon, increasing recycled content (e.g., for Aluminum and ABS), and exploring bio-based alternatives for components like PCBs.
3. **Renewable Energy Transition:** Invest in or procure 100% renewable energy for manufacturing operations in China and throughout the supply chain.
4. **Optimizing Logistics:** Explore more efficient and lower-emission transport modes (e.g., rail or sea freight over long-distance road freight from China to Europe).
5. **Strengthening Circularity:** Expand initiatives beyond existing take-back programs to enhance repairability, reusability, and higher-value recycling of components.