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carboncalcpcf.com

Product Carbon Footprint Dashboard

A detailed analysis for your Smart Home Device: **igxqtm towk**

22.322 kgCO₂e

Total Carbon Footprint per unit (Cradle-to-Grave)

Key Metrics Overview

Total Footprint

22.322 kgCO2e

Carbon Intensity

31.89 kgCO2e/kg

(per 0.70 kg product weight)

Top Material Hotspot

2.50 kgCO2e

Electronic Components

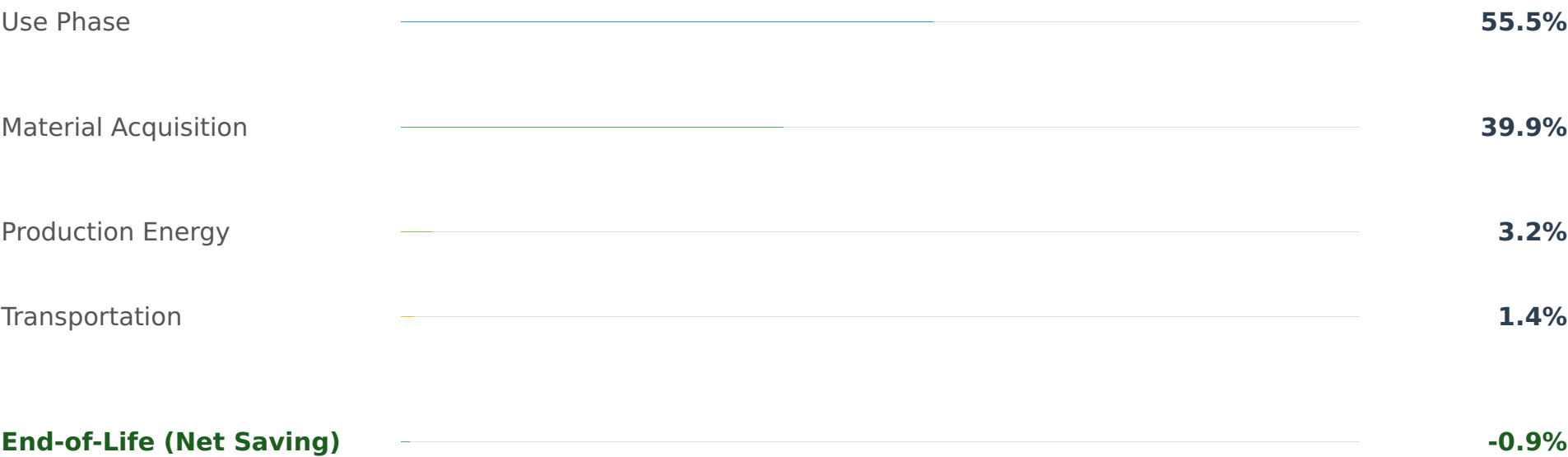
Primary Emission Scope

Scope 3

(21.606 kgCO2e)

Emissions Breakdown

Lifecycle Stage Impact



Material Composition Carbon Impact

Electronic Components (IC's)		2.50 kgCO2e
Aluminum Casing		2.40 kgCO2e
Printed Circuit Board (PCB)		2.00 kgCO2e
Lithium-ion Battery		1.50 kgCO2e
ABS Plastic Enclosure		0.53 kgCO2e
Copper Wiring		0.06 kgCO2e

Highlights & Hotspots

- The **Use Phase** is the most significant contributor, accounting for 56.0% of the total carbon footprint, highlighting energy consumption during product operation.
- **Material Acquisition & Pre-processing** represents 40.3% of emissions, with electronic components and aluminum being key contributors.
- A **net carbon saving of -0.9%** is achieved at the End-of-Life phase due to a high recyclability percentage and circular programs.

Recommended Actions for Reduction

- **Enhance Energy Efficiency:** Focus on reducing energy consumption during the product's use phase through innovative design.
- **Sustainable Material Sourcing:** Explore lower-carbon alternatives for electronic components and aluminum, and increase recycled content.
- **Boost Renewable Energy in Production:** Further increase the renewable energy usage at manufacturing facilities to reduce production energy emissions.