

# Product Carbon Footprint

for mhhyezhndm

**28.76 kgCO<sub>2</sub>e**

Total Carbon Footprint

# Key Carbon Metrics

Total Footprint

**28.76 kgCO<sub>2</sub>e**

For 1.0 unit of mhhyezhdnm

Carbon Intensity

**28.76 kgCO<sub>2</sub>e/unit**

Per functional unit

Top Material Hotspot

**Lithium-ion Battery**

4.00 kgCO<sub>2</sub>e (56.7% of material emissions)

Primary Emission Scope

**Use Phase**

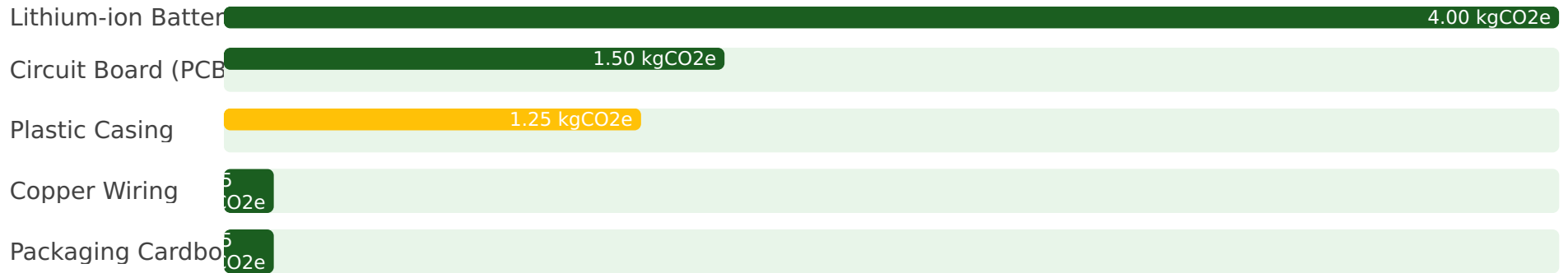
Scope 3, Cat 11 (69.53% of total)

# Emissions Breakdown

## Lifecycle Stage Contributions

- Raw Material Acquisition & Pre-processing: 24.51%
- Manufacturing (Energy): 6.26%
- Transportation: 1.08%
- Use Phase: 69.53%
- End-of-Life Treatment: -1.39%

## Material Carbon Impact (kgCO<sub>2</sub>e)



## Highlights & Emission Hotspots

- **Use Phase Dominance:** The product's operational energy consumption accounts for nearly 70% of its total carbon footprint.
- **Material Impact:** Lithium-ion battery and circuit board manufacturing are significant contributors to raw material emissions.
- **Manufacturing Opportunity:** Despite 40% renewable energy use, there's a notable impact from production energy, indicating room for further greening the grid.

## Action Plan for Reduction

1. **Enhance Use Phase Efficiency:** Focus R&D on reducing energy consumption during product operation through design and smart features.
2. **Sustainable Material Sourcing:** Prioritize lower-carbon materials, increased recycled content, especially for batteries and PCBs.
3. **Increase Renewable Energy in Manufacturing:** Aim for 100% renewable energy in production facilities.
4. **Optimize Logistics:** Implement route optimization, consolidate shipments, and explore lower-emission transport modes.
5. **Strengthen Circularity:** Expand take-back schemes and increase material recovery rates beyond current 60% recyclability.