# Carbon Footprint Dashboard

Product: egvilhsozg

Overall PCF (Illustrative)

**300 kgCO2e/unit**

Total Footprint

**300**

kgCO2e/unit

Carbon Intensity

**300**

kgCO2e/unit

Top Material Hotspot

**Steel Alloy**

(120 kgCO2e of Material Impact)

Primary Emission Scope

**Scope 3**

(95% Coverage)

## Lifecycle Stage Breakdown (Illustrative)

| | |
|---|---|
| Materials & Pre-processing | 40% (120 kgCO2e) |
| Manufacturing (Energy) | 20% (60 kgCO2e) |
| Manufacturing (Direct Ops) | 5% (15 kgCO2e) |
| Transport (Upstream & Downstream) | 15% (45 kgCO2e) |
| Use Phase | 15% (45 kgCO2e) |
| End-of-Life | 5% (15 kgCO2e) |

## Top Material Carbon Impact (Illustrative)

| | |
|---|---|
| Steel Alloy | 375 kgCO2e |
| Polypropylene | 135 kgCO2e |
| Copper Wiring | 30 kgCO2e |
| Circuit Board (PCB) | 20 kgCO2e |

*These values are illustrative based on the BOM example in the report.

## Key Insights & Hotspots

- **Material Acquisition Dominates:** Materials & Pre-processing represent 40% of the total PCF, primarily driven by energy-intensive components like Steel Alloy.
- **Manufacturing & Use Phase are Significant:** Energy consumption in manufacturing (20%) and during the product's 5-year use phase (15%) are critical contributors.
- **Downstream Logistics Impact:** Long-distance ocean and road freight for distribution contribute 15% to overall emissions, indicating a need for optimized logistics.

## Recommended Action Plan for Reduction

- ✓ **Supplier Engagement & Material Substitution:** Work with suppliers to source lower-carbon materials or explore alternative, less impactful components.
- ✓ **Increase Renewable Energy Sourcing:** Target 100% renewable electricity for manufacturing operations to further reduce Scope 2 emissions (currently 75%).
- ✓ **Optimize Logistics & Localize Supply:** Evaluate transport modes, routes, and consider localizing material sourcing or distribution to reduce freight emissions.
- ✓ **Enhance Product Energy Efficiency:** Design for lower energy consumption during the 5-year use phase and explore extending product lifespan.
- ✓ **Strengthen Circular Economy Initiatives:** Expand take-back schemes and improve recyclability beyond the current 80% to further reduce End-of-Life impacts.