



Product Carbon Footprint **POWEREDGE R650**

Report Produced August 2022

At Dell Technologies we are working to reduce the environmental impact of our products. We look at every part of the product's lifecycle, from materials, manufacturing, and shipping to use and end-of-life management after it leaves our doors.

To calculate this Dell Technologies uses PAIA (Product Attribute to Impact Algorithm) to perform product carbon footprints. PAIA is a streamlined Life-Cycle Assessment (LCA) tool developed by [MIT's Materials System Laboratory](#). It takes into consideration important attributes of the product which can be correlated to activities in order to calculate the product carbon footprint.

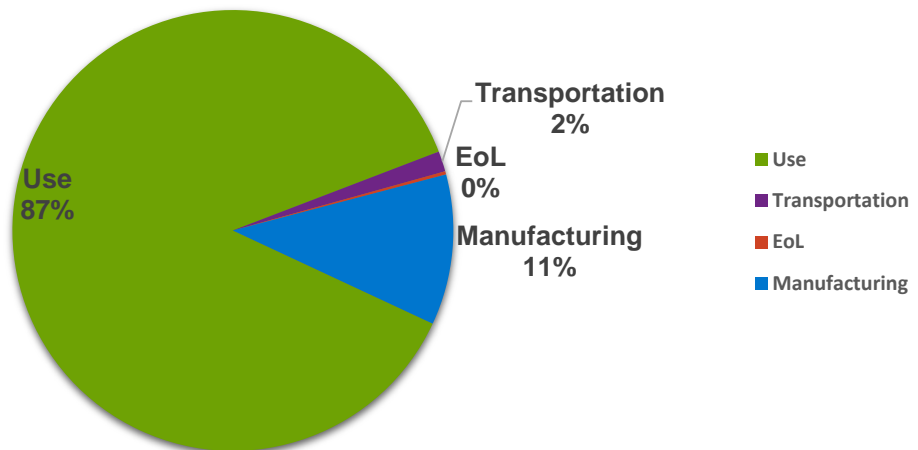


Carbon footprint calculations have a wide range based on a variety of factors including how the device is configured, where it was manufactured and more. Dell Technologies reports the 5th and 95th percentile of the carbon footprint estimate to reflect that uncertainty. For this product, that estimate has a mean of 9860 kg of CO₂e and standard deviation of 5320 kg of CO₂e.

Assumptions for calculating product carbon footprint:

Product Weight	21.25 kg	Server Type	Rack	Assembly Location	Asia
Product Lifetime	4 years	Use Location	Europe	Energy Demand (Yearly TEC) ¹	4301.2 kWh
HDD/SSD Quantity	2	DRAM Capacity	256GB	CPU Quantity	2
Fan Count	8	PSU Count	2	Core Count per CPU	28

ESTIMATED IMPACT BY LIFECYCLE STAGE



Learn more about what Dell is doing to reduce our impact at [Dell.com/Sustainability](https://www.dell.com/sustainability)

Disclaimer: This PCF was calculated using the PAIA model, version 1.3.2, copyright by the ICT Benchmarking collaboration, which includes the Massachusetts Institute of Technology's Materials Systems Laboratory and partners. Results shown here are subject to change as the tool is updated. The Use component of the PCF assumes a PUE of 1.0. If your Data Center PUE differs from 1.0, the Use component may be ratiometrically scaled up from a PUE of 1.0.

¹ Typical ENERGY STAR power computation used to derive this value. "TEC is the Total Energy Consumption"