



PowerEdge R440

Report produced February, 2019

From design to end-of-life and everything in between, we work to improve the environmental impact of the products you purchase. As part of that process, we estimate the specific impacts throughout the lifecycle. This includes the contributions from materials, manufacturing, distribution, use and end-of-life management.



This product's estimated carbon footprint:

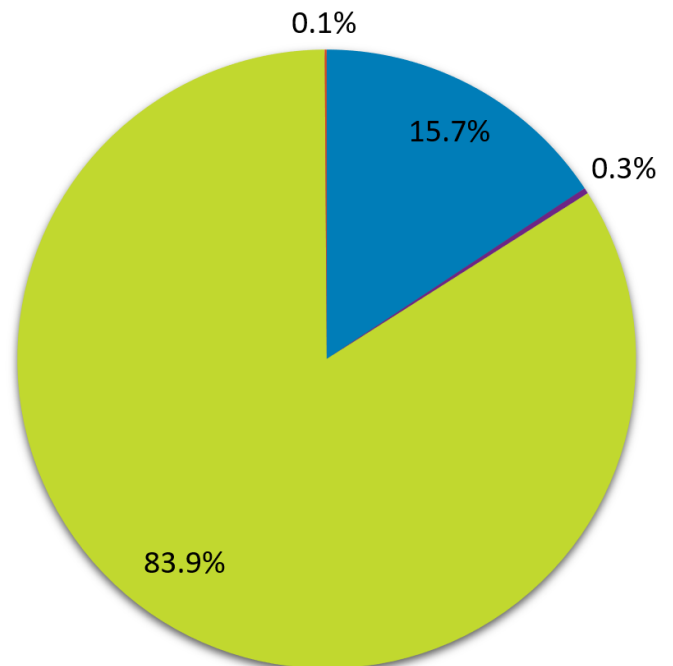
7360 kgCO₂e *

Estimated impact by lifecycle stage:

Dell uses PAIA (Product Attribute to Impact Algorithm) to perform product carbon footprints. PAIA is a streamlined 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.

Due to high configurability of servers, the information provided here was calculated based on the products highest selling configuration (see assumptions on page 2).

- Manufacturing
- Transportation
- Use
- EoL

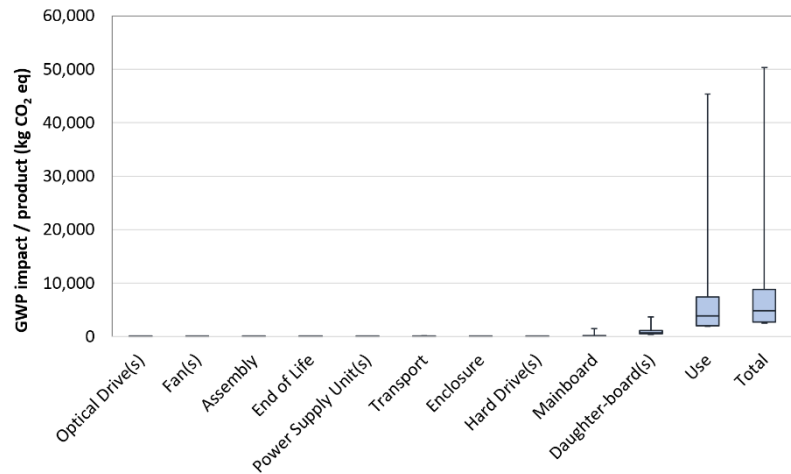




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* This product has an estimated standard deviation of +/- 7460 kgCO₂e

As part of our commitment to transparency, the chart to the right demonstrates the degree of uncertainty that exists within the PAIA model for product carbon footprinting, based on assumptions we have made for select variables.



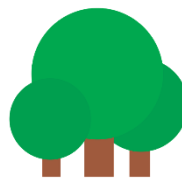
Assumptions for calculating product carbon footprint:

Product Weight	17.64 kg	Server Type	Rack	Assembly Location	EU
Product Lifetime	4 years	Use Location	EU	Energy Demand (Yearly TEC)	1480.002 kWh
HDD/SSD Quantity	x2 1.2TB 2.5" HDD	DRAM Capacity	16GB	CPU Quantity	2

7360 kgCO₂e



1 of these products... has a footprint approx. equivalent to **driving 18,032 miles** in a passenger car.



10 of these products... have a footprint approx. equal to what **87 acres of US forests** can absorb in a year.



100 of these products... have a footprint about the same as the annual average carbon footprint of **147 people**.

To help our customers and other stakeholders contextualize product carbon footprint values, we provide these approximate equivalencies. Please remember these are estimates and should not be used for emission inventory or formal carbon footprinting exercises.

Calculations are based on the following methodologies: 2.45 miles driven per 1 kg co₂e (source: [U.S. EPA](#)); approx. 850 kg co₂e absorbed per acre of forests over a year (source: [U.S. EPA](#)); global personal carbon footprint estimated at 5 MTco₂e per person (source: [World Bank](#)).