

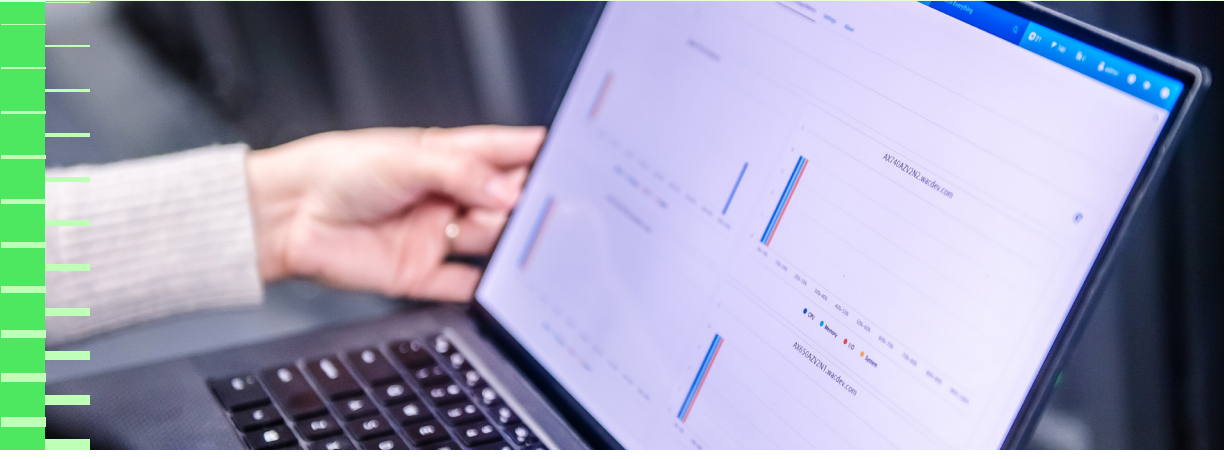
# Product Carbon Footprints: Measuring the impact of products on the environment



Now is the moment to drive a future that propels human progress and delivers greater impact for businesses, people and the planet. Dell Technologies creates technology to help customers and partners achieve their business and societal goals and provides environmental impact measurements. Here's how we measure each product's carbon footprint (PCF) and pursue opportunities for improvement.

## Measuring our impact.

Dell Technologies provides a PCF calculation, which is a cradle-to-grave assessment of each product's environmental impact.



## How is a PCF measured?

While there are numerous ways to estimate PCFs, our reporting is informed by third-party experts.

**Dell PCF Calculator:** Dell utilizes a custom PCF tool, ISO 14040 compliant, to generate PCFs for new products starting with select PCs and Displays based on key parameters. The tool supports full LCA for multiple products, ensuring consistent methodology across our portfolio.

**PAIA:** The Product Attribute to Impact Algorithm (PAIA) method is a streamlined PCF tool that incorporates emissions produced across the product's entire lifecycle.



### Manufacturing phase

Product assembly, emissions from materials, and manufacturing of its components and parts (e.g., drives, graphics cards, memory, CPUs, mainboards, etc.).



### Logistics or transportation phase

Transportation of the parts, components, and products from suppliers to fulfillment centers and ultimately to the customer.



### Use phase

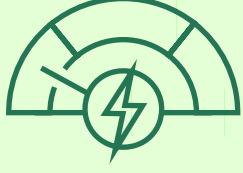
Use of the product at customer locations within a given time frame.



### End of life phase

End of life (EOL) processing (i.e., recycling, refurbishing or disposing of the product).

## What are some complexities to be aware of when looking at PCFs?



PCFs vary based on product configuration and the power source where the product is plugged in. A server powered by renewable energy will have a lower PCF than one powered by non-renewable energy.

## What is the difference between a PCF and a LCA?

A PCF focuses specifically on global warming potential (GWP) and measures it across all phases of a product's life.

An LCA provides a broader assessment that incorporates a range of potential environmental impact categories including water consumption, acidification, ozone depletion, resource depletion and PCF.



## Are there industry standards or rules on PCF calculations?



Currently, there is ISO guidance on overall methodology; however, no industry standards or rules dictate how PCFs should be calculated for electronic devices. As a result, no two PCFs can be accurately compared without deeply understanding the assumptions that go into the PCF calculations.

## How do PCFs relate to the greenhouse gas (GHG) scopes and categories?

PCFs provide an overview of emissions at a product level. However, several scope 3 categories align with PCF data, including purchased goods and services, transportation and distribution, and use of sold products.



## Using data to lower PCFs.

When it comes to designing our products, we consider the entire lifecycle to reduce PCFs. This includes:



Sourcing sustainable materials.



Developing solutions with greater energy efficiency.



Using more sustainable packaging.



Retiring assets responsibly and prioritizing reuse.

We are committed to designing solutions and products that can help us reduce the carbon footprint of our products for ourselves and our customers as we work toward net zero emissions.

From the materials in our products and packaging to the strength and integrity of our supply chain, **we look for every opportunity to create, deliver, reuse, and recycle our products responsibly and sustainably.**



[Learn more](#) about how Dell Technologies is reducing PCFs.

[Discover](#) our other sustainability initiatives.

