



# Lenovo Sustainability Solutions

Smarter climate action  
across the IT lifecycle

Smarter  
technology  
for all

Lenovo

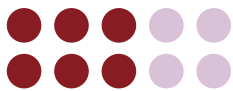




Environmental sustainability is at the forefront of today's issues for businesses of every size and sector. In fact, 90% of executives believe sustainability is important.<sup>1</sup> But only 60% of organizations have sustainability strategies.<sup>1</sup> Companies need to set and achieve environmental goals to stay relevant, competitive, and do the right thing for our planet.



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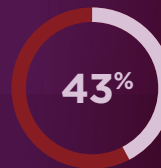
At Lenovo, we've built sustainability into every part of our business. We believe sharing what we know today with our customers and global network of partners lets us work together to build a more sustainable future with meaning and opportunity for all.

**Lenovo Sustainability Solutions** equip and empower you to pursue your sustainability objectives. We meet you wherever you are on the journey — helping you access the right solutions to turn aspiration into action.

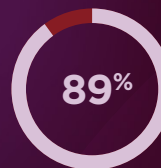


## Committed to achieving net-zero by 2050

As a global technology powerhouse, we recognize that Lenovo can help make the world more sustainable through innovative applications of our technology. We are committed to achieving net-zero greenhouse gas emissions by 2050 — the first PC and smartphone manufacturer to have a net-zero commitment validated through the Science Based Targets initiative (SBTi) Net-Zero Standard.



Globally, only **43%** of executives say they're aware of their organization's IT footprint.<sup>2</sup>



**89%** of organizations recycle less than 10% of their IT hardware.<sup>2</sup>

## Build your organization on a sustainable foundation

Making environmentally conscious IT choices can go far beyond comparing energy efficiency scores. From how we make and ship your technology to how you use and return it, we're working to help you reduce waste, save costs, better manage your carbon footprint, and pursue a circular way of doing business.

Through a detailed assessment and **sustainability workshop**, we can help you evaluate the most efficient way to buy and implement IT solutions. Our consulting services help you take tangible actions including planning, configuration, deployment, support, management, recertification, and retirement of IT assets.



## Lenovo pioneers.



### Sustainable manufacturing

Partnering with Lenovo means buying responsibly. We're leading the charge in using recycled materials like aluminum and post-consumer recycled content (PCC). We use closed-loop PCC in **248 products**. And we pioneered low-temperature solder (LTS) technology that supports our climate change mitigation goals in the manufacturing process.

LTS has resulted in a total reduction of **10,000 metric tons** of CO<sub>2</sub> emissions since 2017 while also providing reliable products with a lower carbon footprint. LTS also drives benefits extending beyond the environment — including improved reliability, efficiency, and cost.

**248**

products contain closed-loop PCC.



**10,000**

Low-temperature solder (LTS) has resulted in a total reduction of **10,000 metric tons of CO<sub>2</sub> emissions** since 2017.

We pioneered low-temperature solder (LTS) technology that supports our climate change mitigation goals in the manufacturing process.





## Innovative packaging

By using bio-based materials like bamboo and sugarcane, we've made our packaging sleek, lightweight, and 100% rapid-renewable. We've increased the use of ocean-bound plastic (OBP) in our packaging bags and cushions, with **30% OBP** in select products. And we use a **rack integration** solution to ship pre-installed servers, dramatically reducing packaging waste.



**We use 30% ocean-bound plastic in select products.**



### Did you know?

Our innovative design eliminates 54 metric tons of plastic tape from ThinkPad packaging annually.



## Reimagined logistics

We've got new ways to get your IT solutions from point A to point B with less environmental impact, including **bulk packaging** and a lower carbon emissions mode of transport to deliver IT equipment.



## End-to-end energy efficiency

Lenovo notebooks, desktops, servers, and monitors meet and often exceed the current ENERGY STAR® requirements. In 2021, **27 Lenovo monitors** were recognized as "ENERGY STAR Most Efficient." And a new high-density storage enclosure increases power efficiency up to 62% to support carbon footprint reduction for a **more sustainable data center**.\*



# 27

**Lenovo monitors were recognized as "ENERGY STAR Most Efficient" in 2021.**

### Did you know?

We top the Green500 list with the world's most energy-efficient supercomputer.<sup>3</sup>





## Take smarter climate action for everyday energy efficiency

Partner with Lenovo to implement more sustainable, cost-efficient practices across the device lifecycle and make a meaningful difference in how you use technology.

## Lenovo innovates.



### Optimize IT consumption with as-a-service models

The **Lenovo TruScale Device as a Service** (Lenovo TruScale DaaS) subscription model is an efficient way to manage your fleet of end-user devices, optimizing resources and costs while promoting circularity. Deploy just what you need and responsibly dispose of what you don't. Supported by our suite of services, TruScale DaaS helps you prolong device usability and create a more sustainable end-to-end journey for your IT assets.

Optimize data center consumption with **Lenovo TruScale Infrastructure as a Service** — a cost-efficient, flexible, pay-as-you-go model that right-sizes infrastructure for demand. Take advantage of Lenovo's TruScale metering technology and the TruScale portal to monitor your infrastructure health, power consumption, and heating, and help manage utilization and costs more efficiently.



### Tangible carbon offset programs

While minimizing and eliminating emissions is always the goal, carbon offsetting your IT fleet is another way to help manage your overall carbon footprint. We make it easy with a seamless, transparent process for Lenovo devices across your current IT fleet or new purchases — with a sustainability dashboard to view the offset metrics. The offsets are contributed to climate action projects verified by independent third-party organizations like the United Nations, CDM, Gold Standard,<sup>®</sup> and Climate Action Reserve.



### Groundbreaking water-cooling technology

Tackle the data center's toughest challenge: cooling. **Lenovo Neptune™** direct water cooling delivers **95% heat removal efficiency** and up to **40% lower power consumption**.<sup>4</sup> The warm water loop is closed and uses a tiny fraction of what evaporative cooling uses, so you can power through the most compute-intensive workloads more energy-efficiently.

95%



40%



As part of the Lenovo Neptune™ cooling technologies, let our Energy Aware Runtime (EAR) software and xClarity Energy Manager optimize your power states, turn off unused components, and route workloads to the most efficient resources, delivering optimal performance with lower energy consumption.



## Be an integral part of the circular economy

The circular economy is about reducing waste and extending usability — maximizing the value of goods while minimizing their environmental impact.

Partner with us to deploy technology designed to support the circular economy, and take advantage of services throughout the lifecycle that help you manage your carbon footprint.

## Lenovo supports.



### All the Rs: Recycle, repair, refurbish, reuse, return, recover

Hardware-agnostic **Lenovo Asset Recovery Services (ARS)** help mitigate end-of-life IT and data security risks. We reuse parts, refurbish devices, and recycle assets. Buy-backs help you fund future IT investments. And Lenovo PCs and infrastructure hardware can get a new lease on life through **Lenovo Recertified Services**.



### Prolong device usability

Extend device refresh cycles with **Lenovo Premier Support Plus**. It delivers proactive and predictive alerts, easy fixes, priority technician access, quick onsite repairs, and extended battery protection. All of this helps minimize costly downtime and keeps your devices running at peak performance for longer.



Lenovo





## We believe...

This is the time to deepen and expand our global response to the climate crisis — and technology has a pivotal role to play. The decisions organizations make now have a profound impact on generations to come and the future of our planet.

Lenovo meets you wherever you are on the journey — helping you navigate today's sustainability landscape, progress toward your short-term and long-term goals, and measure your impact. Let's work together to make the future sustainable.

**Contact us for a sustainability assessment.**

### Sources

- 1 World Economic Forum, "Why sustainability is crucial for corporate strategy," June 2022
- 2 Capgemini Research Institute, Sustainable IT survey, January 2021
- 3 Lenovo StoryHub, "New Flatiron Institute Supercomputer the Most Power-Efficient Ever Built," press release, November 2022
- 4 Lenovo internal source, 2023

\* Comparison representative of replacing the predecessor model, the Lenovo D3284, with a Lenovo ThinkSystem D4390. Actual savings will depend on customer environment and usage patterns.

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